

THEORIES OF THE INFORMATION SOCIETY

FOURTH EDITION

FRANK WEBSTER

ROUTLEDGE 

THEORIES OF THE INFORMATION SOCIETY

Information is regarded as a distinguishing feature of our world. Where once economies were built on industry and conquest, we are now part of a global information economy. Pervasive media, expanding information occupations and the development of the internet convince many that living in an Information Society is the destiny of us all. Coping in an era of information flows, of virtual relationships and breakneck change poses challenges to one and all.

In *Theories of the Information Society* Frank Webster sets out to make sense of the information explosion, taking a sceptical look at what thinkers mean when they refer to the Information Society, and critically examining the major post-war approaches to informational development. The fourth edition of this classic study brings it up to date with new research and with social and technological changes – from the ‘Twitter Revolutions’ of North Africa, to financial crises that introduced the worst recession in a lifetime, to the emergence of social media and blogging – and reassesses the work of key theorists in the light of these changes.

More outspoken than in previous editions, Webster urges abandonment of Information Society scenarios, preferring analysis of the informatization of long-established relationships. This interdisciplinary book is essential reading for those trying to make sense of social and technological change in the post-war era. It addresses issues of central concern to students of sociology, politics, geography, communications, information science, cultural studies, computing and librarianship.

Frank Webster has been Professor of Sociology at Oxford Brookes University, the University of Birmingham and City University London.

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**Theories of the Information
Society, fourth edition**

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Theories of the Information Society

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Frank Webster

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In memory of Frank Neville Webster
20 June 1920–15 July 1993

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Preface and acknowledgements

I have been persuaded to produce a fourth edition of this book midway into writing one concerned with the relations between democracy, information and new technologies. I was prepared to be diverted from the latter because its core question – what is the connection between a healthy democracy and the information environment? – appeared to me to confront a closely related problem addressed recurrently in *Theories of the Information Society*. At root, this concerned the need to query assertions, however superficially persuasive or appealing, that technological breakthroughs are set to overturn our established ways of life. In recent years prophets aplenty have emerged to proclaim the democratizing effects of new media, whether it is through mobilizing of once ignored people (crowd sourcing), the interactivity affordances of computer communications, or the prospects for the decentralization of decision making.

In the early 1990s there was some advocacy of electronic democracy that made claims for holding plebiscites on just about anything with the convenience of the home terminal. However, commentary on democracy's extension and strengthening has increased apace since the millennium at the same time as it has become more measured and mainstream. Research grants and serious journals are now available to those who might examine what consequences for political participation might be offered by the internet, by blogging, by government information being available online or by Twitter.

My ongoing book sets out to challenge technocentric assertions, moderate as well as extreme, on grounds of oversimplification, of frequent wishful thinking and of starting from a wrong-headed position, as well as of ignoring evidence of what was actually taking place. *Theories of the Information Society*, the first edition of which was drafted in the early 1990s, set about related claims that a new world was coming into being largely on the back of technological breakthroughs. This was set to be a new 'weightless' economy, a 'flat' world that would overturn established ways of behaving, an epoch in which 'thinking smart' was at one with the emerging 'Information Society'. Editions two and three continued to engage with similar claims for technology's *impact* since it seemed that such claims for technology's effects could not be quietened.

It is remarkable to me that the bases of argument advanced by Information Society thinkers, however much they are thrown back, continue to return. It was once the Microelectronics Revolution that was said to be bringing about the Information

Age (back in 1979 the then Prime Minister James Callaghan told us we had to 'wake up' to the coming of the microchip). Thereafter it was the internet that was going to overturn set ways and now, more recently, we have witnessed many similar sorts of opinion on the consequences of 'social media' such as Facebook and Twitter. I was in my twenties when Lord Callaghan spoke out; now in my sixties I am astonished at the similarity of the messages across the ages. It seems that each new innovation sparks a firestorm of techno-prediction: this – or that – will change everything.

Over the past several years an abundance of writers have even begun to perceive the vitalizing of democracy as a potential gift of new technologies. I am certainly persuaded that democratization is a major feature of our times, taking to heart Amartya Sen's (1999) observation that 'it [is] difficult not to accord primacy to the emergence of democracy as the pre-eminently acceptable form of governance'. The processes whereby this sensibility and its practices emerge are remarkable: for their historical novelty, for their almost universal acceptance, as well as for the influence they exercise in current affairs (from Tony Blair's avowal of 'liberal interventionism' in the affairs of other countries during the invasion of Iraq in 2003 to the cries of dissidents that the war was fought 'not in my name'). In the light of my own concerns about democratization, it will not be surprising to learn that I have taken a particular interest in the words of those who see in new technologies possibilities of enhancing, even radically bringing into being, democracy. Such visions have come not only from naive technologists and starry-eyed futurists, but also from serious scholars concerned about matters such as declining participation in established political parties and calls for more accountability of politicians. I was not disposed to think democracy comes courtesy of a computer console, or even from a Twitter account, so I began researching what turns out to be a complicated social, political, economic and even technological milieu within which democracy is both expressed and (re)conceived.

As I undertook this research I found myself returning to issues that had occupied earlier editions of *Theories of the Information Society*. It was not just that I found myself unhappy with the linking of technology and democracy. It was the case that the evidence requires more nuanced thinking about the issues than this sort of pairing allows, but it was also the implied causal chain: that technology *impacts* on society/politics to change the way we are. Adherents of this approach readily concede that sometimes the impact is unfortunate and disappointing, though for the most part they see its impact as positive, but *always* they accede to the view that to start from an impact assessment is an appropriate way to proceed. I do not accept this point of departure. It was a similar gripe I had when writing *Theories of the Information Society*: I could not accept that analysts should begin from the presumption that information of itself (and however it was measured, usually by technology, but also by numbers of white-collar workers or the revenue it generated) could bring about a new social order. Of course, one could see lots more information being generated, transmitted and stored, but the notion that this announced a new sort of society cried out for critical scrutiny. It was as if a conclusion (more information) was being transformed into an explanation, indeed a cause, of change itself.

When we look today we do see lots more democracy around. We even see changing conceptions of democracy (who would have imagined, for example, that tolerance of differences – of lifestyles, sexualities, religions – would have become so widely regarded as an index of democracy in less than a generation in the UK?). And there is certainly a great deal more computer communications technology around. But the suggestion that the latter impacts to increase (and occasionally decrease) democracy is not, I submit, the best way to understand the increased democratization of our world. The approach is mired in a technocentric approach; one that positively misleads on matters that, because they are urgent and important, require more than this.

When my editor at Routledge, Gerhard Boomgaarden, approached me for this fourth edition, the time seemed ripe to incorporate concerns about democratization, information and technology into the new edition while also recomposing the earlier manuscript of eight years ago. I have taken the opportunity to add new chapters as well as to thoroughly revise those that remain. Perhaps the most important addition is Chapter 10, on Friedrich von Hayek and his pro-market successors. I have not become a convert to Hayek, but his absence from earlier editions is inexcusable given the worldly significance of his ideas and his undoubted intellectual distinction. Capitalism is now without credible intellectual challenge (though it remains highly unstable and volatile, as well as callous and even cruel) and arguably its best-known twentieth-century advocate merits serious attention. That Hayek had much to say about information as well as democracy (though he was suspicious of it and lauded liberty more) provides further reason to include him here.

I have also endeavoured to retain a significant amount of exposition of argument in this book since I am aware that many readers will not have a grounding in the theory and theorists that dominate the work. However, I have taken the opportunity to be more critical than in earlier editions as well as to make more clear my own reasoning and conclusions. Arguing *for* a position as well as taking care to offer reliable accounts of those with whom I disagree is not always comfortable, but I have tried to restrain my opinions where necessary and to launch them towards the end of chapters and most directly in the final chapter of this book (see Chapter 13).

I produced this work while in the employ of City University London and leave that institution as I complete it. While at City, John Solomos (now at Warwick), Alice Bloch (now at Manchester) and Howard Tumber (a City lifer) were wonderful colleagues who sustained me through a troubling health episode. Kevin Robins, a colleague with whom I have written over decades but now far away in Istanbul, was often in my thoughts. Keith Lambe, a dear friend of more than thirty years, died in May 2011, a reminder of truly important concerns. I often discussed my work with Keith, who responded in his inimitable way: direct, sceptical and energetic. I miss him enormously and wish I could put a copy of this book into his hands.

Liz Chapman: thanks for being there since we were teenagers.

CHAPTER ONE

Introduction

It seems to me that most people ask themselves, at one time or another, what sort of society is it in which we live? How can we make sense of what is going on with our world? Where is it all taking us? Where do we fit in all of this? This is a daunting and frequently bewildering task because it involves trying to identify the major contours of extraordinarily complex and changeable circumstances. It is, in my view, the duty of social science to identify and explain the most consequential features of how we live now, the better that we may see where we are headed, so that we might influence where we are going. Some people quickly give up on the task, frankly admitting confusion. Still others, encountering disputation, retreat into the comforting (and lazy) belief that we see only what we choose. Fortunately, most people stick with trying to understand what is happening in the world, and in so doing reach for such terms as capitalism, industrialism, totalitarianism and democracy. Most of us will have heard these sorts of words, will have voiced them ourselves, when trying to account for events and upheavals, for important historical occurrences, or even for the general drift of social, economic and political change.

In all probability we will have argued with others about the appropriateness of these labels when applied to particular circumstances. We will even have debated just what the terms might mean. For instance, while it can be agreed that Russia has moved well away from Communism since the collapse of the Soviet Union late in 1991, there will be less agreement that the transition can be accurately described as a shift to a fully capitalist society. And, while most analysts see clearly the spread of markets in China, the continuation of a dictatorial Communist Party there makes it difficult to describe China in similar terms as, say, we do with reference to Western Europe. There is a constant need to qualify the generalizing terminology: hence terms like pre-industrial, emerging democracies, advanced capitalism, authoritarian populism and state capitalism.

And yet, despite these necessary refinements, few of us will feel able to refuse these concepts or indeed others like them. The obvious reason is that, big and crude and subject to amendment and misunderstanding though they be, these concepts and others like them do give us a means of identifying and beginning to understand essential elements of the world in which we live and from which we have emerged. It seems inescapable that, impelled to make sense of the most consequential features of different societies and circumstances, we are driven towards the adoption of grand concepts. Big terms for big issues.

The starting point for this book is the emergence of an apparently new way of conceiving contemporary societies. Commentators began to talk about information as a distinguishing feature of the modern world forty years or so ago. This prioritization of information has maintained its hold now for decades and there is little sign of it losing its grip on the imagination. We are told that we are entering an information age, that a new 'mode of information' predominates, that ours is now an 'e-society', that we must come to terms with a 'weightless economy' driven by information, that we have moved into a 'global information economy'. Very many commentators identified as Information Societies the United States, Britain, Japan, Germany and other nations with a similar way of life. Politicians, business leaders and policy makers have taken the Information Society idea to their hearts, with the European Union urging the rapid adjustment to a 'global Information Society', thereby following in the tracks of Japan, which embraced the concept of Information Society in the early 1970s (Duff, 2000).

Just what sense to make of this has been a source of controversy. To some it constitutes the beginning of a professionalized and caring society, while to others it represents a tightening of control over the citizenry; to some it heralds the emergence of an educated public which has ready access to knowledge, while to others it means a deluge of trivia, sensationalism and misleading propaganda that keeps people stupid; to some it heralds a knowledge-led society, while for others we have entered an era of unprecedented monitorship. Among political economists talk is of a novel 'e-economy' in which the quick-thinking knowledge entrepreneur has the advantage; among the more culturally sensitive reference is to 'cyberspace', a 'virtual reality' no-place that welcomes the imaginative and inventive.

Amidst this divergent opinion, what is striking is that, oppositional though they are, all scholars acknowledge that there is something special about information. In an extensive and burgeoning literature concerned with the information age, there is little agreement about its major characteristics and its significance other than that information has achieved a special pertinence. The writing available may be characteristically disputatious and marked by radically different premises and conclusions, but about the special salience of information there is no discord.

It was curiosity about the currency of information that sparked the idea for the first edition of this book, which I wrote in the early 1990s. It seemed that, on many sides, people were marshalling yet another grandiose term to identify the germane features of our time. But simultaneously thinkers were remarkably divergent in their interpretations of what form this information took, why it was central to our present systems, and how it was affecting social, economic and political relationships.

This curiosity has remained with me, not least because the concern with information persists, and has, if anything, been heightened, as has the variability among analysts about what it all amounts to. While I was writing the first edition of this book discussion appeared stimulated chiefly by technological change. The 'micro-electronics revolution', announced in the late 1970s and early 1980s, launched a fleet of opinion about what information technology (IT) was set to do to us. Favoured topics then were 'the end of work', the advent of a 'leisure society', the totally 'automated factory' in which robots did everything. These subjects went

out of style somewhat as full employment returned in the late 1990s and 2000s, but the enthusiasm for technologically driven changes remained.

Another agenda emerged that concerned the internet as it became widely available during the 1990s. This focused on the 'information superhighway' and cybersociety brought about now by information and communications technologies (ICTs). Hot topics were electronic democracy, virtual relations, interactivity, personalization, cyborgs and online communities. Much comment seized on the speed and versatility of new media to evoke the prospect of radical transformations in what we might do. Thus when a tsunami enveloped large parts of South East Asia on 26 December 2004, the phones went down, but e-mail and the internet rapidly became the means to seek out lost ones. And when, on 7 July 2005, terrorists bombed the London Underground and the bus system, the phone system shut down, yet people quickly turned to the internet for news and mutual support, while the photographic facilities on many mobile phones displaced traditional media to provide vivid pictures of the immediate devastation.

Most recently, there has been an explosion of interest in 'social media', a catch-all label for things like blogging, social networking, wikis and internet forums where users can both consume and produce information (leading to the invention of the neologism 'prosumer'). Increasing availability of computer communications technologies, accessed by easy-to-use programmes, has led to bold prophecies about the potential of 'crowd sourcing'. The notion that 'anywhere, anytime, always connected' technologies have the potential to bring together previously isolated people means that, for some, there will be radical transformation of investment patterns (microfinancing), of retailing (online shopping) and even political engagement, where the once disenfranchised are empowered. Indeed, for some the 'Arab Spring' that ignited through 2011 in Egypt, Tunisia, Libya and even Saudi Arabia and the United Arab Republic has been the result of technologies such as the mobile phone, video cameras and the internet integrated in and through the 'affordances' of social media such as Twitter, Reddit, YouTube and Facebook (cf. Shirky, 2008; Howard, 2011; Castells, 2012). Elsewhere, there was instant commentary on the urban riots that struck London in the summer of 2011 that accounted for their virulence and efficacy with reference to the capabilities of disaffected and criminal inner city youth armed with Blackberry Messenger mobile phones that enabled participants to connect and converge with ease (Halliday, 2011). As the *Economist* (13 August 2011) titled them, 'the Blackberry Riots' (cf. Adams, 2011) appeared to be a vivid example of the capacity of social media to bring together adroitly formerly isolated people, thereby to inflate their power (for good or ill [cf. Dunleavy *et al.*, 2012]).

In some quarters at least there has been a move away from technology as the source of comment towards what one might consider the softer sides of information. This is reflected in a shift from computer communications technologies towards interest in social media, where commentary moves from concern with what technology is doing to society towards what people can do with technologies that are now pervasive, accessible and adaptable. Among politicians and intellectuals there is also an increased concern for 'informational labour', for the 'symbolic analysts' who are best equipped to lead where adaptability and ongoing retraining

are the norm. Here it is people who are the key players in the Information Society, so long as they have been blessed by a first-rate education that endows them with the informational abilities to survive in a new and globalized economy. Now deal-makers, managers, software engineers, media creators and all those involved with the creative industries are seen as key to the Information Society. This shift in analysis from technology to people, along with a persistence of general concern for information, encouraged me to produce this fourth edition of *Theories of the Information Society*.

I focus attention on different interpretations of the import of information in order to scrutinize a common area of interest, even though, as we shall see, interpretations of the role and import of information diverge widely, and, indeed, the closer that we come to examine their terms of reference, the less agreement even about the ostensibly common subject matter – information – there appears to be.

Setting out to examine various images of the Information Society, this book is organized in such a way as to scrutinize major contributions towards our understanding of information in the modern world. For this reason, following a critical review of definitional issues in Chapters 2 and 3 (consequences of which reverberate through the book), each chapter thereafter looks at a particular theory and its most prominent proponents and attempts to assess its strengths and weaknesses in the light of alternative theoretical analyses and empirical evidence. Starting with thinkers and theories in this way does have its problems. Readers eager to learn about, say, the internet and online/offline relations, or about information flows in the Iraq War, or about the consumption of music that has accompanied the spread of file sharing, or about politics in an era of media saturation, will not find such issues considered independently in this book. These topics are here, often at considerable length, but they are incorporated into chapters organized around major thinkers and theories. Some readers might find themselves shrugging at this, tempted to dismiss the book as the work of a dreamy theorist.

I plead (a bit) guilty. As they progress through this book readers will encounter Daniel Bell's conception of post-industrial society which places a special emphasis on information (Chapter 4); the contention that we have undergone a transition from Fordist to post-Fordist society that generates and relies upon information handling to succeed (Chapter 5); Manuel Castells's influential views on the 'informational capitalism' which operates in the 'network society' (Chapter 6); a number of thinkers, notably John Urry, who conceive of 'mobilities' – of information, but also people and products – as the distinguishing feature of our world (Chapter 7); Herbert Schiller's views on advanced capitalism's need for and manipulation of information (Chapter 8); Jürgen Habermas's argument that the 'public sphere' is in decline and with it the integrity of information (Chapter 9); Friedrich von Hayek's view that only the market can ensure the information needed by a successful economy and liberal society (Chapter 10); Anthony Giddens's thoughts on 'reflexive modernization', which spotlight the part played by information gathered for surveillance and control purposes (Chapter 11); and Jean Baudrillard and Zygmunt Bauman on postmodernism and postmodernity, both of whom give particular attention to the explosion of signs in the modern era (Chapter 12).

It will not escape notice that these thinkers and the theories with which they are associated, ranging across disciplines such as sociology, philosophy, economics and

geography, are at the centre of contemporary debates in social science. This is, of course, not especially surprising given that social thinkers are engaged in trying to understand and explain the world in which we live and that an important feature of this is change in the informational realm. It is unconscionable that anyone should attempt to account for the state of the world without paying due attention to that enormous domain which covers changes in mass media, the centrality of *mediation* to our lives (from our knowledge of what is happening in the world through news services to the routine use of text messaging and mobile telephony), the spread of information and communication technologies, new forms of work and even shifts in education systems and services.

Let me admit something else: because this book starts from contemporary social science, it is worth warning that some may find at least parts of it difficult to follow. Jürgen Habermas is undeniably challenging, Daniel Bell – outside popularizations of his work – is a sophisticated and complex sociologist who requires effort to appreciate, and postmodern thinkers such as Jean Baudrillard are famously (and irritatingly) opaque in expression. So those who are confused will not be alone in this regard. It can be disconcerting for those interested in the information age to encounter what to them can appear rather alien and arcane social theorists. They know that there has been a radical, even a revolutionary, breakthrough in the technological realm and they want, accordingly, a straightforward account of the social and economic consequences of this development. There are paperbacks galore to satisfy this need. ‘Theory’, especially ‘grand theory’ which has ambitions to identify the most salient features of contemporary life and which frequently has recourse to history and an array of other ‘theorists’, many of them long dead, does not, and should not, enter into the matter since all it does is confuse and obfuscate.

Against this, I assert the value of my starting point. I *intentionally* approach an understanding of information via encounters with social theorists by way of a riposte to a rash of pronouncements on the information age. Far too much of this has come from ‘practical’ men (and a few women) who, impressed by the ‘Information Technology Revolution’, or enthused by the internet, or unable to imagine life without e-mail, or enraptured by bloggers, or wowed by the instantaneity of a tweet that has ‘gone viral’, or captivated by ‘virtual reality’ experiences that outdo the mundane, have felt able to reel off social and economic consequences that are likely, even inevitably, to follow. In these frames work will be transformed, education upturned, corporate structures revitalized, democracy itself reassessed – all because of the ‘information revolution’ (cf. Morozov, 2013).

Such approaches have influenced – and continue to influence – a vast swathe of opinion on the Information Society: in paperback books with titles such as *The Mighty Micro*, *The Wired Society*, *Being Digital* and *What Will Be*, in university courses designed to consider the ‘social effects of the computer revolution’, in countless political and business addresses, and in a scarcely calculable amount of journalism that alerts audiences to prepare for upheaval in all aspects of their lives as a result of the Information Age.

These sorts of commentaries of course have an immediacy that appeals, a ‘real-world’ engagement that readily pushes aside any concern for ‘theory’. This latter itself evokes slow motion reflection, dust-gathering bookishness and retreat into an

unworldly and cosseted ‘ivory tower’. In the here and now, the place where momentous changes are taking place irrespective of the academic’s musings, theory has little part to play. How much better to read the forecasts of expert practitioners who have experience of developing computer communications systems and know what is happening from the rough and tumble of being in the business. It is just this that draws us towards – and makes eminently qualified to write – Google executives Eric Schmidt and Jared Cohen (2013), whose *The New Digital Age* has this authority to pronounce on (to adopt their subtitle) nothing less than the *Future of People, Nations and Business*.

I have been a Professor of Sociology now for almost twenty-five years and throughout that period I have specialized as a researcher and writer on informational matters. I have lost count of the number of requests from radio stations, newspapers and television to provide an ‘expert’ opinion on children’s vulnerabilities to computer games, on paedophile circles’ use of the internet, on how blogging is transforming politics, on what online teaching is doing to education, on how computer dating is transforming relationships . . . I routinely turn these down. In so doing I have felt a lingering sense of being a disappointment to my employers (who are always eager to parade their brand) and even to my often beleaguered discipline: ‘Come on, you’re a sociologist and here is your opportunity to show the worthiness of our work.’ The trouble is, I am convinced that this is *not* the position from which to start if one wants to adequately understand what is happening in the Information Society. I am intensely interested in the here and now, as I am in policies developed to direct change, but I am sure that the posing of questions that are journalistically arresting and have an immediate pertinence at a given time, while eminently practical, are *not* the best way to appreciate the information revolution, not least because they start with dubious suppositions about what caused change.

One needs, I feel, to be warned against the ‘practical’ men and women who have little time for theory. They often disavow it, but still theory intrudes into their points of view. Thus when asked, ‘What is the internet doing to the family?’ or ‘What sort of occupations will be destroyed by ICTs?’, researchers are being blinkered in ways that lead them away from a fuller understanding of the role of information in change because the questions presuppose (even where it is vehemently denied) a certain theoretical starting point. I demonstrate this later at some length, but for now commend Keynes’s (1936) counsel in the final paragraph of his *General Theory of Employment, Interest and Money* that one should beware those ‘practical men who believe themselves to be quite exempt from any intellectual influence (because they) are usually the slaves of some defunct economist’.

Keynes, of course, had an alternative theoretical model of the economy to the then orthodoxy that was not admitted to be anything other than ‘obvious’ to practical people. Part of Keynes’s argument is worth revisiting since it has special resonance in our times of ‘austerity’. We can all agree that the economy has been in deficit and has achieved minimal, if any, growth since 2009. Practical people, faced with debt, reduce their expenditure because we know that we cannot live beyond our means. This is what governments in Britain and elsewhere have been doing since 2010. This policy commands widespread support since it seems obvious that

debt can only be removed by making savings. The popular appeal of this policy (even where the effects are unpleasant) rests largely on the commonsense idea that a national economy is comparable to a household's. If the latter gets into trouble, perhaps because someone there loses a job, then it cannot afford to spend what it once did, hence it cuts its cloth to live within its reduced means. This is simply the practical thing to do, theory apparently having no part to play in the real world.

However, when it comes to a national economy, as opposed to a family home, the economy is decidedly *not* like a household, a lesson imparted in any introductory economics course. Cut public expenditure here, for instance, and this puts out of work many people, with serious knock-on effects that often lead to further losses of work, which in turn means that tax revenue is lost, welfare costs escalate and national debt is compounded. One easily develops a vicious downward spiral precisely because the wider economy is *not* like one's household. There is no need to be schooled in Keynesian economics to appreciate here that a practical rationale has its limits that theory can expose and towards which it can present alternative policies.

An aim of approaching information from an alternative starting point, that of contemporary social theory (at least that which is combined with empirical evidence), is to demonstrate that the social *impact* approaches towards information are hopelessly simplistic and positively misleading for those who want to understand what is going on and what is most likely to transpire in the future. Another aim is to show that social theory, combined with empirical evidence, is an enormously richer, and hence ultimately more practical and useful, way of understanding and explaining recent trends in the information domain.

While most of the thinkers I examine in this book address informational trends directly, not all of them do so. Thus while Daniel Bell and Herbert Schiller, in their very different ways and with commendable prescience, were insisting for well over a generation that information and communication issues are at the heart of post-war changes, there are other thinkers whom I consider, such as Jürgen Habermas and Anthony Giddens, who give less direct attention to the informational domain. I hasten to say that this is neither because they have nothing to contribute to our understanding of information nor because they do not consider it to be important. Rather it is because their terms of debate are different from my focus on the subject of information. For this reason I have felt free to lead off from discussion of, say, Habermas's notion of the public sphere or from consideration of arguments surrounding an alleged shift from Fordism to post-Fordism, more directly towards my interest in informational issues. Since I am not trying to provide a full exposition of particular social theories but rather am trying to understand the significance of the information domain with the best tools that are available, this does not seem to me to be illegitimate.

It needs to be said too that, throughout this book, there runs an interrogative and sceptical view of the Information Society concept itself. One or two commentators complained that the earlier editions of *Theories of the Information Society* were so critical of the notion of an Information Society that there seemed no point in writing a whole book about it. I return to this criticism in Chapter 13, but state here that it seems appropriate to give close attention to a term that exercises

such leverage over current thought, even if one finds it has serious shortcomings. The Information Society might be misleading, but it can still have value in a heuristic sense (Cortada, 2007). At the same time, a major problem is that the concept Information Society often carries with it an array of suppositions about what has and is changing and how change is being effected, yet it is used seemingly unproblematically by a wide section of opinion. Recognition of this encouraged me in my choice of title since it meant that people would see instantly, at least in very broad terms, what it was about. Nonetheless, I do hope to shake some of the confidence of those who subscribe to the notion of the arrival of a novel Information Society in what follows. I shall be contesting the accuracy and appropriateness of the concept in many of its variants, though I do find it useful in some respects. So readers ought to note that, though I am often critical of the term, on occasions, and with some qualification, I do judge it to be helpful to understanding how we live today.

In Chapters 2 and 3 I subject the concept Information Society to some scrutiny, and there readers will come across major definitional problems with the term, but at the outset I would draw attention to a major divide that separates many of the thinkers whom I consider in this book. On the one side are subscribers to the notion of an Information Society, while on the other are those that insist that we have only experienced the informatization of established relationships. It will become clear that this is not a mere academic division since the different terminology reveals how one is best to understand what is happening in the informational realm.

It is important to highlight the division of opinion as regards the variable interpretations we will encounter in what follows. On the one hand, there are those who subscribe to the notion that in recent times we have seen emerge Information Societies which are marked by their differences from hitherto existing societies. Not all of these are altogether happy with the term Information Society, but in so far as they argue that the present era is special and different, marking a turning point in social development, I think they can be described as its endorsers. On the other hand, there are scholars who, while happy to concede that information has taken on a special significance in the modern era, insist that the central feature of the present is its continuities with the past.

The difference between Information Society theorists and those who examine informatization as a subordinate feature of established social systems can be one of degree, with thinkers occupying different points along a continuum, but there is undeniably one pole on which the emphasis is on change and another where the stress is on persistence.

In this book I shall be considering various perspectives on information in the contemporary world, discussing thinkers and theories such as Daniel Bell's post-industrialism, Friedrich von Hayek's insistence that capitalism provides the optimal means of ensuring adequate information for everyone, Jean-François Lyotard on postmodernism and Jürgen Habermas on the public sphere. Doing so we shall see that each has a distinct contribution to make towards our understanding of informational developments, whether it is as regards the role of white-collar employees, the undermining of established intellectual thought, the extension of surveillance,

the increase in regularization of daily life or the weakening of civil society. It is my major purpose to consider and critique these differences of interpretation.

Nonetheless, beyond and between these differences is a line that should not be ignored, the separation between those who endorse the idea of an Information Society and those who regard informatization as the continuation of pre-established relations. Towards one wing we may position those who proclaim a new sort of society that has emerged from the old. Drawn to this side are theorists of:

- *post-industrialism* (Daniel Bell and a legion of followers);
- *postmodernism* (e.g. Jean Baudrillard, Mark Poster, Paul Virilio);
- *flexible specialization* (e.g. Michael Piore and Charles Sabel, Larry Hirschhorn);
- *the informational mode of development* (Manuel Castells).

On the other side are writers who place emphasis on continuities. I would include here theorists of:

- *neo-Marxism* (e.g. Herbert Schiller);
- *Regulation School theory* (e.g. Michel Aglietta, Alain Lipietz);
- *flexible accumulation* (David Harvey);
- *reflexive modernization* (Anthony Giddens);
- *the public sphere* (Jürgen Habermas, Nicholas Garnham).

None of the latter denies that information is of key importance to the modern world, but unlike the former they argue that its form and function are subordinate to long-established principles and practices. As they progress through this book, readers will have the chance to decide which approaches they find most persuasive.

CHAPTER TWO

Definitions

If we are to appreciate different approaches to understanding informational trends and issues nowadays, we need to pay attention to the definitions that are brought into play by participants in the debates. It is especially helpful to examine at the outset what those who refer to an Information Society mean when they evoke this term. The insistence of those who subscribe to this concept, and their assertion that our time is one marked by its novelty, cries out for analysis, more urgently perhaps than those scenarios which contend that the status quo remains.

Criteria

What strikes one in reading the literature on the Information Society is that so many writers operate with undeveloped definitions of their subject. It seems so obvious to them that we live in an Information Society that they blithely presume it is not necessary to clarify precisely what they mean by the concept. They write copiously about particular features of the Information Society, but are curiously vague about their operational criteria. Eager to make sense of changes in information, they rush to interpret these in terms of different forms of economic production, new forms of social interaction, innovative processes of production or whatever. As they do so, however, they often fail to establish in what ways and why information is becoming more central today, so critical indeed that it is ushering in a new type of society. Just what is it about information that makes so many scholars think that it is at the core of the modern age?

It is possible to distinguish five definitions of an Information Society, each of which presents criteria for identifying the new. These are:

- 1 technological
- 2 economic
- 3 occupational
- 4 spatial
- 5 cultural

These need not be mutually exclusive, though theorists emphasize one or other factors in presenting their particular scenarios. However, what these definitions

share is the conviction that quantitative changes in information are bringing into being a qualitatively new sort of social system, the Information Society. In this way each definition reasons in much the same way: there is more information nowadays, therefore we have an Information Society. As we shall see, there are serious difficulties with this *ex post facto* reasoning that argues a *cause from a conclusion* (there is more information about, this therefore brings about an Information Society).

There is a sixth definition of an Information Society which is distinctive in so far as its main claim is not that there is more information today (there obviously is), but rather that the character of information is such as to have transformed how we live. The suggestion here is that *theoretical knowledge/information* is at the core of how we conduct ourselves these days. This definition, one that is singularly qualitative in kind, is not favoured by most Information Society proponents, though I find it the most persuasive argument for the appropriateness of the Information Society label and address it more fully in Chapter 3. For the moment, let us look more closely at these definitions in turn.

Technological

Technological conceptions centre on an array of innovations that have appeared since the late 1970s. New technologies are one of the most visible indicators of new times, and accordingly are frequently taken to signal the coming of an Information Society. Particular technologies that seize the attention of commentators have varied over time, some being outdated by superior technologies (e.g. compact discs [CDs]), while hindsight reveals that others were prematurely hailed as *the* breakthrough technology (e.g. mainframe computers). These have included cable and satellite television, video games, personal computers (PCs), online information services, laptops, computer-to-computer communications, the World Wide Web and smart phones. The usual suggestion is, simply, that such a volume of technological innovation must lead to a reconstitution of the social world because its impact is so profound.

If it is not enthusiasm for a specific new technology that launches a rocket of futurism, then it is acknowledgement of a process and generic technology: *digitization* and *microelectronics* are said to be revolutionizing just about everything we might use, from the workings of automobiles to the storage and retrieval of information. These have the advantage of being non-specific, thereby providing futurists with more leeway in their predictions, but a technological conception of the fulcrum of change remains.

It is possible to distinguish three periods in which the assertion was made that new technologies were of such moment that they were bringing about systemic social change. During the first, set in the late 1970s and early 1980s, commentators got excited about the 'mighty micro's' capacity to revolutionize our way of life (Evans, 1979; Martin, 1978), and none more so than the world's leading futurist, Alvin Toffler (1980). His suggestion, in a memorable metaphor, is that, over time, the world has been decisively shaped by three *waves* of technological innovation, each as unstoppable as the mightiest tidal force. The first was the agricultural revolution

and the second the Industrial Revolution. The third is the information revolution that is engulfing us now and which presages a new way of living (which, attests Toffler, will turn out fine if only we ride the unstoppable wave).

The second phase commenced in the mid-1990s when many commentators came to believe that the merging of information and communications technologies (ICTs) was of such consequence that we were being ushered into a new sort of society. Computer communications (e-mail, data and text communications, online information exchange, etc.) inspired most speculation about a new society in the making (Negroponte, 1995; Gates, 1995; Dertouzos, 1997). The rapid growth of the internet especially stimulated much commentary. Media regularly featured accounts of the arrival of an information ‘superhighway’ on which the populace would become adept at driving. Authoritative voices were raised to announce that ‘a new order . . . is being forced upon an unsuspecting world by advances in telecommunications. The future is being born in the so-called *information superhighways* . . . [and] anyone bypassed by these highways faces ruin’ (Angell, 1995, p. 10). In such accounts a great deal was made of the rapid adoption of internet technologies, especially those that are broadband based since this technology can be always on without interrupting normal telephony, through wireless connection whereby the mobile phone becomes the connector to the internet, something that excites those who foresee a world of ‘placeless connectivity’— anywhere, anytime, always the user is ‘in touch’ with the network (Connors, 1993).

The second phase slackened from around 2005, to be replaced by a third, wherein ‘social media’ became the focus of attention. Here commentators seized upon technologies such as the ‘smart’ phone (notably the iPhone that set the pace), the laptop computer and the iPad, and combined this with awareness of the remarkable emergence of sites such as Facebook, MySpace and Twitter, making much of the sheer ordinariness of these readily accessible, user friendly and rapidly pervasive technologies. Witnessing these trends, commentators announced that *interactivity, transparency and flexibility* were key reasons for a sea change in the established social order. Quickly following came pronouncements on the democratizing consequences of ‘crowd sourcing’, of the challenges posed by ‘disintermediation’ to established retailing, of the marvels of Wikipedia, where experts would be bypassed yet the content would remain trustworthy and reliable because it was always open to be edited by anyone so interested, of the transformation hitting education with the coming of an era of individuated online courses (Shirky, 2008, 2010; Anderson, 2006; Surowiecki, 2004).

The more academic analysts, while avoiding the exaggerated language of futurists and politicians, have nonetheless adopted what is at root a similar approach to media and political commentators (Feather, 1998; Hill, 1999). For instance, from Japan there have been attempts to measure the growth of Joho Shakai (Information Society) since the 1960s (Duff *et al.*, 1996). The Japanese Ministry of Posts and Telecommunications (MPT) commenced a census in 1975 which endeavours to track changes in the volume (e.g. numbers of telephone messages) and vehicles (e.g. penetration of telecommunications equipment) of information using sophisticated techniques (Ito, 1991, 1994). In Britain, a much respected school of thought devised a neo-Schumpeterian approach to change.

Combining Schumpeter's argument that major technological innovations bring about 'creative destruction' with Kondratieff's theme of 'long waves' of economic development, these researchers contend that information and communications technologies represent the establishment of a new epoch (Freeman, 1987) which will be disruptive during its earlier phases, but over the longer term will be economically beneficial (cf. Gordon, 2012). This new 'techno-economic paradigm' constitutes the 'Information Age' which is set to mature early in the twenty-first century (Hall and Preston, 1988; Preston, 2001).

Commonsensibly, these definitions of the Information Society do seem appropriate. After all, if it is possible to see a 'series of inventions' (Landes, 1969) – steam power, the internal combustion engine, electricity, the flying shuttle – as the key characteristic of the 'industrial society', then why not accept the virtuoso developments in ICT as evidence of a new type of society? As John Naisbitt (1984) put it: 'Computer technology is to the information age what mechanization was to the industrial revolution' (p. 28). And why not?

It may seem obvious that these technologies are valid as distinguishing features of a new society, but when one probes further one cannot but be struck also by the vagueness of technology in most of these comments. Asking for an empirical measure – in *this* society *now* how much ICT is there and how far does this take us towards qualifying for Information Society status? How much ICT is required in order to identify an Information Society? Asking simply for a usable measure, one quickly becomes aware that a good many of those who emphasize technology are not able to provide us with anything so mundanely real-worldly or testable. ICTs, it begins to appear, are everywhere – and nowhere too.

This problem of measurement, and the associated difficulty of stipulating the point on the technological scale at which a society is judged to have entered an information age, is surely central to any acceptable definition of a distinctively new type of society. It is generally ignored by Information Society devotees: the new technologies are announced and it is presumed that this in itself heralds the Information Society (a conclusion becomes a cause). This issue is, surprisingly, also bypassed by other scholars who yet assert that ICT is the major index of an Information Society. They are content to describe in general terms technological innovations, somehow presuming that this is enough to distinguish the new society.

Let me state this baldly: is an Information Society one in which everyone has a PC? If so, is this to be a PC of a specified capability? Or is it to be a networked computer rather than a stand-alone? Or is it more appropriate to take as an index the uptake of iPhones or Blackberries? Is it when just about everyone gets a digital television? Or is individual adoption of such technologies of secondary significance, the key measure being organizational incorporation of ICTs? Is the really telling measure institutional adoption as opposed to individual ownership? Moreover, what exactly is to be included as a technology here? There may be less ambiguity as regards hardware, but in recent years software technologies have come to be regarded as proxy measures for the Information Society. For instance, Twitter started in 2007 and scarcely a year later reached its billionth tweet, and Facebook achieved one billion users by late 2012, just eight years after its commencement. These figures testify to remarkable growth not of hard technologies,

but of services on the internet. But how robust are such as indicators of the arrival of a new society and should technological measures incorporate software developments such as these? Asking these questions one becomes conscious that a technological definition of the Information Society is not at all straightforward, however self-evident such definitions initially appear. It behoves those who proclaim adoption of ICTs to be the distinguishing feature of an Information Society to be more precise about what they mean.

In spite of the apparent certainty of many that technological change brings about an Information Society, doubts about measurement are only increased by realization that commentators shift their focus dependent on the currency of the technology at particular times. Hence one-time concern for mainframe computers later shifted to PCs, as interest later still shifted from laptop computers to tablets, passing along the way an earlier enthusiasm for mobile telephones. Where the priority for particular technologies so readily changes, concern about the validity of measuring the coming of the Information Society via technology necessarily heightens.

Another objection to technological definitions of the Information Society is frequently made, yet can scarcely be overstated. Critics object to those who assert that, in a given era, technologies are first invented and then subsequently *impact* on the society, thereby impelling people to respond by adjusting to the new. Technology in these versions is privileged above all else, hence it comes to identify an entire social world: the Steam Age, the Age of the Automobile, the Atomic Age (Dickson, 1974).

The central objection here is not only that this is unavoidably technologically determinist – in that technology is regarded as the prime social dynamic – and as such an oversimplification of processes of change (Morozov, 2013). It most certainly is this, but more important is that it relegates into an entirely separate division social, economic and political dimensions of technological innovation. These follow from, and are subordinate to, the premier force of technology that appears to be self-perpetuating, though it leaves its impress on all aspects of society. Technology in this imagination comes from *outside* society as an invasive element, without contact with the social in its development, yet it has enormous social consequences when it *impacts* on society.

But it is demonstratively the case that technology is not aloof from the social realm in this way. On the contrary, it is an integral part of the social. For instance, research and development decisions express priorities, and from these value judgements particular types of technology are produced (e.g. military projects received substantially more funding than health work for much of the time in the twentieth century – not surprisingly a consequence are state-of-the-art weapon systems which dwarf the advances of treatment of prostate cancer or macular degeneration).

Many studies have shown how technologies bear the impress of social values, whether it be in the architectural design of bridges in New York, where allegedly heights were set that would prevent public transit systems accessing certain areas that could remain the preserve of private car owners; the manufacture of cars which testify to the values of private ownership, presumptions about family size (typically two adults, two children), attitudes towards the environment (profligate

use of non-renewable energy alongside pollution), status symbols (the Porsche, the Mercedes, the Skoda) and individual rather than public forms of transit; or the construction of houses which are not just places to live, but also expressions of ways of life, prestige and power relations, and preferences for a variety of lifestyles. This being so, how can it be acceptable to take what is regarded as an asocial phenomenon (technology) and assert that this then defines the social world? It is facile (one could as well take any elemental factor and ascribe society with its name – the Oxygen Society, the Water Society, the Potato Age) and it is false (technology is in truth an intrinsic part of society), and therefore ICT's separate and supreme role in social change is dubious.

Economic

This approach charts the growth in economic worth of informational activities. If one is able to plot an increase in the proportion of gross national product (GNP) accounted for by the information business, then logically there comes a point at which one may declare the achievement of an information economy. Once the greater part of economic activity is taken up by information activity rather than, say, subsistence agriculture or industrial manufacture, then it follows that we may speak of an Information Society (Jonscher, 1999).

In principle straightforward, but in practice an extraordinarily complex exercise, for which much of the pioneering work was done by the late Fritz Machlup (1902–83) of Princeton University (Machlup, 1962). His identification of information industries such as education, law, publishing, media and computer manufacture, and his attempt to estimate their changing economic worth, has been refined by Marc Porat (1977b).

Porat distinguished the primary and secondary information sectors of the economy. The former is susceptible to ready economic valuation since it has an ascribable market price, while the latter, harder to price but nonetheless essential to all modern-day organization, involves informational activities within companies and state institutions (for example the personnel wings of a company, the research and development [R&D] sections of a business). In this way Porat is able to distinguish the two informational sectors, then to consolidate them, separate out the non-informational elements of the economy and, by reagggregating national economic statistics, is able to conclude that, with almost half the United States' GNP accounted for by these combined informational sectors, 'the United States is now an information-based economy'. As such it is an 'Information Society [where] the major arenas of economic activity are the information goods and service producers, and the public and private (secondary information sector) bureaucracies' (Porat, 1978, p. 32).

This quantification of the economic significance of information is an impressive achievement. It is not surprising that those convinced of the emergence of an Information Society have routinely turned to Machlup and especially Porat as authoritative demonstrations of a rising curve of information activity, one set to lead the way to a new age. However, there are difficulties too with the economics of

information approach (Monk, 1989, pp. 39–63). A major one is that behind the weighty statistical tables there is a great deal of interpretation and value judgement as to how to construct categories and what to include and exclude from the information sector.

In this regard what is particularly striking is that, in spite of their differences, both Machlup and Porat create encompassing categories of the information sector which exaggerate its economic worth. There are reasons to query their validity. For example, Machlup includes in his 'knowledge industries' the 'construction of information buildings', the basis for which presumably is that a building for, say, a university or library is different from that intended for the warehousing of tea and coffee. But how, then, is one to allocate the many buildings which, once constructed, change purpose (many university departments are located in erstwhile domestic houses, and some lecture rooms are in converted warehouses)?

Again, Porat is at some pains to identify the 'quasi-firm' embedded within a non-informational enterprise. But is it acceptable, from the correct assumption that R&D in a petrochemical company involves informational activity, to separate this from the manufacturing element for statistical purposes? It is surely likely that the activities are blurred, with the R&D section intimately tied to production wings, and any separation for mathematical reasons is unfaithful to its role. More generally, when Porat examines his 'secondary information sector' he in fact splits every industry into the informational and non-informational domains. But such divisions between the 'thinking' and the 'doing' are extraordinarily hard to accept – where does one put operation of computer numerical control systems or the line management functions which are an integral element of production? The objection here is that Porat somewhat arbitrarily divides within industries to chart the 'secondary information sector' as opposed to the 'non-informational' realm. Such objections may not invalidate the findings of Machlup and Porat, but they are a reminder of the unavoidable intrusion of value judgements in the construction of their statistical tables. As such they support scepticism as regards the idea of an emergent information economy.

Another difficulty is that the aggregated data inevitably homogenize very disparate economic activities. In the round it may be possible to say that growth in the economic worth of advertising and television is indicative of an Information Society, but one is left with an urge to distinguish between informational activities on qualitative grounds. The enthusiasm of the information economists to put a price tag on everything has the unfortunate consequence of failing to let us know the really valuable dimensions of the information sector. This search to differentiate between quantitative and qualitative indices of an Information Society is not pursued by Machlup and Porat, though it is obvious that the multi-million sales of the *Sun* newspaper cannot be equated with – still less be regarded as more informational, though doubtless it is of more economic value – the 250,000 circulation of *The Financial Times*. It is a distinction to which I shall return, but one which suggests the possibility that we could have a society in which, as measured by GNP, informational activity is of great weight, but which in terms of the springs of economic, social and political life is of little consequence: a nation of couch potatoes and Disney-style pleasure-seekers consuming images night and day?

Occupational

This is the approach most favoured by sociologists. It is also one closely associated with the work of Daniel Bell (1973), who is the most important theorist of 'post-industrial society' (a term synonymous with Information Society, and used as such in Bell's own writing). Here the occupational structure is examined over time and patterns of change observed. The suggestion is that we have achieved an Information Society when the preponderance of occupations is found in information work. The decline of manufacturing employment and the rise of service sector employment is interpreted as the loss of manual jobs and its replacement with white-collar work. Since the raw material of non-manual labour is information (as opposed to the brawn and dexterity plus machinery characteristic of manual labour), substantial increases in such informational work can be said to announce the arrival of an Information Society.

There is prima facie evidence for this: in Western Europe, Japan and North America over 70 per cent of the workforce is now found in the service sector of the economy, and white-collar occupations are now a majority. On these grounds alone it would seem plausible to argue that we inhabit an Information Society, since the 'predominant group [of occupations] consists of information workers' (Bell, 1979, p. 183).

An emphasis on occupational change as the marker of an Information Society has gone some way towards displacing once dominant concerns with technology. This conception of the Information Society is quite different from that which suggests it is information and communications *technologies* which distinguish the new age. A focus on occupational change is one which stresses the transformative power of information itself rather than that of technologies, information being what is drawn upon and generated in occupations or embodied in people through their education and experiences. Charles Leadbeater (1999) titled his book to highlight the insight that it is information which is foundational in the present epoch. 'Living on thin air' was once a familiar admonition given by the worldly wise to those reluctant to earn a living by the sweat of their brows. But all such advice is now outdated, Leadbeater arguing that this is exactly how to make one's livelihood in the information age. *Living on Thin Air* (1999) proclaims that 'thinking smart', being 'inventive' and having the capacity to develop and exploit 'networks' is actually the key to the new 'weightless' economy (Coyne, 1997), since wealth production comes, not from physical effort, but from 'ideas, knowledge, skills, talent and creativity' (Leadbeater, 1999, p. 18). His book highlights examples of such successes: designers, deal-makers, image-creators, musicians, biotechnologists, genetic engineers and niche-finders abound.

Leadbeater puts into popular parlance what more scholarly thinkers argue as a matter of course. A range of influential writers, from Robert Reich (1991) and Peter Drucker (1993) to Manuel Castells (1996–8), suggest that the economy today is led and energized by people whose major characteristic is the capacity to manipulate information. Preferred terms vary, from 'symbolic analysts' and 'knowledge experts' to 'informational labour', but one message is constant: today's movers and shakers are those whose work involves creating and using information.

Intuitively it may seem right that a coal miner is to industrial as a tour guide is to Information Society, but in fact the allocation of occupations to these distinct categories is a judgement call that involves much discretion. The end product – a bald statistical figure giving a precise percentage of ‘information workers’ – hides the complex processes by which researchers construct their categories and allocate people to one or another. As Porat puts it: when ‘we assert that certain occupations are primarily engaged in the manipulation of symbols . . . It is a distinction of degree, not of kind’ (Porat, 1977a, p. 3). For example, railway signal workers must have a stock of knowledge about tracks and timetables, about roles and routines. They need to communicate with other signal workers down the line, with station personnel and engine drivers, they are required to ‘know the block’ of their own and other cabins, must keep a precise and comprehensive ledger of all traffic which moves through their area, and have little need of physical strength to pull levers since the advent of modern equipment (Strangleman, 2004). Yet the railway signaller is, doubtless, a manual worker of the ‘industrial age’. Conversely, people who come to repair the photocopier may know little about products other than the one for which they have been trained, may well have to work in hot, dirty and uncomfortable circumstances, and may need considerable strength to move machinery and replace damaged parts. Yet they will undoubtedly be classified as ‘information workers’ since their work with new age machinery suits Porat’s interpretations. The point here is simple: we need to be sceptical of conclusive figures which are the outcomes of researchers’ perceptions of where occupations are to be most appropriately categorized.

A consequence of this categorization is often a failure to identify the more strategically central information occupations. While the methodology may provide us with a picture of greater amounts of information work taking place, it does not offer any means of differentiating the most important dimensions of information work. The pursuit of a quantitative measure of information work disguises the possibility that the growth of certain types of information occupation may have particularly important consequences for social life. This distinction is especially pertinent as regards occupational measures since some commentators seek to characterize an Information Society in terms of the ‘primacy of the professions’ (Bell, 1973), some as the rise to prominence of an elite ‘technostructure’ which wields ‘organised knowledge’ (Galbraith, 1972), while still others focus on alternative sources of strategically central information occupations. Counting the number of ‘information workers’ in a society tells us nothing about the hierarchies – and associated variations in power and esteem – of these people. For example, it could be argued that the crucial issue has been the growth of computing and telecommunications engineers since these may exercise a decisive influence over the pace of technological innovation. Or one might suggest that an expansion of scientific researchers is the critical category of information work since they are the most important factor in bringing about innovation. Conversely, a greater rate of expansion in social workers to handle problems of an ageing population, increased family dislocation and juvenile delinquency may have little to do with an Information Society, though undoubtedly social workers would be classified with ICT engineers as ‘information workers’.

We can better understand this need to qualitatively distinguish between groups of ‘information workers’ by reflecting on a study by the late social historian Harold Perkin. In *The Rise of Professional Society* (1989) Perkin argues that the history of Britain since 1880 may be written largely as the rise to pre-eminence of professionals who rule by virtue of ‘human capital created by education and enhanced by . . . the exclusion of the unqualified’ (p. 2). Perkin contends that certified expertise has been ‘the organising principle of post-war society’ (p. 406), the expert displacing once dominant groups (working-class organizations, capitalist entrepreneurs and the landed aristocracy) and their outdated ideals (of co-operation and solidarity, of property and the market, and of the paternal gentleman) with the professional’s ethos of service, certification and efficiency. To be sure, professionals within the private sector argue fiercely with those in the public, but Perkin insists that this is an internecine struggle, one within ‘professional society’, which decisively excludes the non-expert from serious participation and shares fundamental assumptions (notably the primacy of trained expertise and reward based on merit).

Alvin Gouldner’s discussion of the ‘new class’ provides an interesting complement to Perkin’s. Gouldner identifies a new type of employee that has expanded in the twentieth century, a ‘new class’ that is ‘composed of intellectuals and technical intelligentsia’ (Gouldner, 1978, p. 153), which, while in part self-seeking and often subordinate to powerful groups, can also contest the control of established business and party leaders. Despite these potential powers, the ‘new class’ is itself divided in various ways. A key division is between those who are for the most part technocratic and conformist and the humanist intellectuals, who are critical and emancipatory in orientation. To a large extent this difference is expressed in the conflicts identified by Harold Perkin between private and public sector professionals. For instance, we may find that accountants in the private sector are conservative, while there is a propensity for humanistic intellectuals to be more radical.

My point here is that both Gouldner and Perkin are identifying particular changes within the realm of information work which have especially important consequences for society as a whole. To Gouldner the ‘new class’ can provide us with vocabularies to discuss and debate the direction of social change, while to Perkin the professionals create new ideals for organizing social affairs. If one is searching for an index of the Information Society in these thinkers, one will be directed to the quality of the contribution of certain groups. Whether one agrees or not with either of these interpretations, the challenge to definitions of an Information Society on the basis of a count of raw numbers of ‘information workers’ should be clear. To thinkers such as Perkin and Gouldner, the quantitative change is not the main issue. Indeed, as a proportion of the population the groups they lay emphasis upon, while they have expanded, remain distinct minorities.

Spatial

This conception of the Information Society, while it draws on economics and sociology, has at its core the geographer’s stress on space. Here the major emphasis is on information networks which connect locations and, in consequence, can have

profound effects on the organization of time and space. It has become an especially popular index of the Information Society in recent years as information networks have become prominent features of social organization.

It is usual to stress the centrality of information networks that may link together different locations within and between an office, a town, a region, a continent, indeed the entire world. As the electricity grid runs through an entire country to be accessed at will by individuals with the appropriate connections, so too may we imagine now a 'wired society' operating at the national, international and global level to provide an 'information ring main' (Barron and Curnow, 1979) to each home, shop, university and office – and even to mobile individuals who have their laptop and modem in their briefcase.

Increasingly we are all connected to networks of one sort or another – and they themselves are expanding their reach and capabilities in an exponential manner (Urry, 2000). We come across them personally at many levels: in electronic point-of-sale terminals in shops and restaurants, in accessing data across continents, in e-mailing colleagues or in exchanging information on the internet. We may not personally have experienced this realm of 'cyberspace', but the information ring main functions still more frantically at the level of international banks, intergovernmental agencies and corporate relationships.

A popular idea here is that the electronic highways result in a new emphasis on the flows of information (Castells, 1996), something which leads to a radical revision of time–space relations. In a 'network society' constraints of the clock and of distance have been radically relieved, the corporations and even the individual being capable of managing their affairs effectively on a global scale in real time. Academic researchers no longer need to travel from the university to consult the Library of Congress since they can interrogate it on the internet; the business corporation no longer needs routinely to fly out its managers to find out what is happening in their Far East outlets because computer communications enable systematic surveillance from afar. The suggestion of many is that this heralds a major transformation of our social order (Mulgan, 1991), sufficient to mark even a revolutionary change.

No one could deny that information networks are an important feature of contemporary societies: satellites allow instantaneous communications round the globe, databases can be accessed from Oxford to Los Angeles, Tokyo and Paris, facsimile machines and interconnected computer systems are a routine part of modern businesses. News coverage nowadays can be almost immediate, the laptop computer and the satellite videophone allowing transmission from even the most isolated regions. Individuals may now connect with others to continue real-time relationships without physically coming together (Wellman, 2001; <http://www.chass.utoronto.ca/~wellman>).

Yet we may still ask: why should the presence of networks lead analysts to categorize societies as information societies? And when we ask this we encounter once again the problem of the imprecision of definitions. For instance, when is a network a network? Two people speaking to one another by telephone or computer systems transmitting vast data sets through a packet-switching exchange? When an office block is 'wired' or when terminals in the home can communicate with local

banks and shops? The question of what actually constitutes a network is a serious one, and it raises problems not only of how to distinguish between different levels of networking, but also of how we stipulate a point at which we have entered a 'network/Information Society'.

It also raises the issue of whether we are using a technological definition of the Information Society – i.e. are networks being defined as technological systems? Or would a more appropriate focus be on the *flows* of information, which for some writers are what distinguishes the present age? If it is the former, then we could take the spread of ISDN (integrated services digital network) technologies as an index, but few scholars offer any guidance as to how to do this. And if it is the latter, then it may reasonably be asked how much more volume and velocity of information flow should mark a new society, and why.

Finally, one could argue that information networks have been around for a very long time. From at least the early days of the postal service, through telegram and telephone facilities, much economic, social and political life is unthinkable without the establishment of such information networks. Given this long-term dependency and incremental, if accelerated, development, why should it be that only now have commentators begun to talk in terms of information societies?

Cultural

The final conception of an Information Society is perhaps the most easily acknowledged, yet the least measured. Each of us is aware, from the pattern of our everyday lives, that there has been an extraordinary increase in the information in social circulation. There is simply a great deal more of it about than ever before. Television has been in extensive use since the mid-1950s in Britain, but now its programming is pretty well round the clock. It has expanded from, first, a single channel to five broadcast channels and, now, with digitalization, very many more. Television has been enhanced to incorporate video technologies, cable and satellite channels, and even computerized information services. PCs, access to the internet and the palm-held computer testify to unrelenting expansion here. There is very much more radio output available now than even a decade ago, at local, national and international level. And radios are no longer fixed in the front room, but spread through the home, in the car, the office and, with the Walkman and Apple technologies, everywhere. Movies have long been an important part of people's information environment, but movies are today very much more prevalent than ever: available still at cinema outlets, broadcast on television, readily borrowed from rental shops or online, cheaply purchased from the shelves of chain stores. Walk along any street and it is almost impossible to miss the advertising hoardings, the billboards, the window displays in shops. Visit any railway or bus station and one cannot but be struck by the widespread availability of paperback books and inexpensive magazines. In addition, audio-tape, compact disc and radio all offer more, and more readily available, music, poetry, drama, humour and education to the public. Newspapers are extensively available and a good many new titles fall on our doorsteps as free sheets. Junk mail is delivered daily.

All such testifies to the fact that we inhabit a media-laden society, but the informational features of our world are more thoroughly penetrative than this list suggests. It implies that new media surround us, presenting us with messages to which we may or may not respond. But in truth the informational environment is a great deal more intimate, more constitutive of us, than this suggests. Consider, for example, the informational dimensions of the clothes we wear, the styling of our hair and faces, the very ways in which nowadays we work at our image. Reflection on the complexities of fashion, the intricacy of the ways in which we design ourselves for everyday presentation, makes one aware that social intercourse nowadays involves a greater degree of informational content than previously. There has long been adornment of the body, clothing and make-up being important ways of signalling status, power and affiliation. But it is obvious that the present age has dramatically heightened the symbolic import of dress and the body. When one considers the lack of range of meaning that characterized the peasant smock which was the apparel of the majority for centuries, and the uniformity of the clothing worn by the industrial working class in and out of work up to the 1950s, the explosion of meaning in terms of dress and body styling (from scents to hairstyles) since is remarkable. The availability of cheap and fashionable clothing, the possibilities of affording it, and the accessibility of any number of groups with similar – and different – lifestyles and cultures all make one appreciate the informational content even of our bodies.

Contemporary culture is manifestly more heavily information laden than its predecessors. We exist in a media-saturated environment which means that life is quintessentially about symbolization, about exchanging and receiving – or trying to exchange and resisting reception of – messages about ourselves and others. It is in acknowledgement of this explosion of signification that many writers conceive of our having entered an Information Society. They rarely attempt to gauge this development in quantitative terms, but, rather, start from the ‘obviousness’ of our living in a sea of signs, one fuller than in any earlier epoch.

Paradoxically, it is perhaps this very explosion of information which leads some writers to announce, as it were, the death of the sign. Blitized by signs all around us, designing ourselves with signs, unable to escape signs wherever we may go, the result is, oddly, a collapse of meaning. As Jean Baudrillard once put it: ‘there is more and more information, and less and less meaning’ (1983a, p. 95). In this view signs once had a reference (clothes, for example, signified a given status, the political statement a distinct philosophy). However, in the postmodern era we are enmeshed in such a bewildering web of signs that they lose their salience. Signs come from so many directions, and are so diverse, fast changing and contradictory, that their power to signify is dimmed. Instead they are chaotic and confusing. In addition, audiences are creative, self-aware and reflective, so much so that all signs are greeted with scepticism and a quizzical eye, hence easily inverted, reinterpreted and refracted from their intended meaning. Further, as people’s knowledge through direct experience declines, it becomes increasingly evident that signs are no longer straightforwardly representative of something or someone. The notion that signs represent some ‘reality’ apart from themselves loses credibility. Rather, signs are self-referential: they – simulations – are all there is. They are, again to use Baudrillard’s terminology, the ‘hyper-reality’.

People appreciate this situation readily enough: they deride the poseur who is dressing for effect, but acknowledge that it's all artifice anyway; they are sceptical of politicians who 'manage' the media and their image through adroit public relations (PR), but accept that the whole affair is a matter of information management and manipulation. Here it is conceded that people do not hunger for any true signs because they recognize that there are no longer any truths. In these terms we have entered an age of 'spectacle' in which people realize the artificiality of signs they may be sent ('It's only the Prime Minister at his latest photo opportunity', 'It's news manufacture', 'It's Jack playing the tough guy') and in which they also acknowledge the inauthenticity of the signs they use to construct themselves ('I'll just put on my face', 'There I was adopting the "worried parent" role').

As a result signs lose their meaning and people simply take what they like from those they encounter (usually very different meanings from those that may have been intended at the outset). And then, in putting together signs for their homes, work and selves, they happily revel in their artificiality, 'playfully' mixing different images to present no distinct meaning, but instead to derive 'pleasure' in parody or pastiche. In this Information Society we have, then, 'a set of meanings [which] is communicated [but which] have no meaning' (Poster, 1990, p. 63).

Experientially this idea of an Information Society is easily enough recognized, but as a definition of a new society it is more wayward than any of the notions we have considered. Given the absence of criteria we might use to measure the growth of signification in recent years, it is difficult to see how students of postmodernity such as Mark Poster (1990) can depict the present as one characterized by a novel 'mode of information'. How can we know this other than from our sense that there is more symbolic interplay going on? And on what basis can we distinguish this society from, say, that of the 1920s, other than purely as a matter of degree of difference? As we shall see (in Chapter 12), those who reflect on the 'postmodern condition' have interesting things to say about the character of contemporary culture, but as regards establishing a clear definition of the Information Society they are woeful.

Conclusion

This chapter has worked its way through varying definitions of the Information Society. It has to be said that too many writers on the subject do not trouble to set out the criteria by which the Information Society, which they claim to see, may be measured, though these are usually implicit in the approach of the author. Hence some writers seize upon changes in occupations, while others, the majority, centre on technologies, with others still promoting the growth of, say, round-the-clock media content. However, what becomes clear is that the definitions used, their superficial appeal notwithstanding, are either underdeveloped or lacking in precision, or both. Whether it is a technological, economic, occupational, spatial or cultural conception, we are left with highly problematical notions of what constitutes, and how to distinguish, an Information Society. This being so, we need to go further in our critical examination of Information Society conceptions.

CHAPTER THREE

Quality

Chapter 2 demonstrated that there are difficulties for anyone who believes that an Information Society has arrived and that the evidence for this is self-evident. Though as a heuristic device the term Information Society may be valuable in exploring features of the contemporary world, it is too inexact to be acceptable as a definitive term. For this reason, throughout this book though I shall occasionally use the concept and acknowledge that information plays a critical role in the present age, I express suspicion as regards Information Society scenarios and remain sceptical of the view that information has become the major distinguishing feature of our times.

For the moment, however, I want to raise some further difficulties with the language of the Information Society. The first problem concerns the quantitative versus qualitative measures to which I have alluded in the preceding chapter. My earlier concern was chiefly that quantitative approaches failed to distinguish more strategically significant information activity from that which was routine and low level, and that this homogenization could be deeply misleading. It seems absurd to conflate, for example, the office administrator and the chief executive, just as it is to equate pulp fiction and research monographs. Here I want to re-raise the quality/quantity issue, particularly as it bears upon the question of whether the Information Society marks a break with previous sorts of society.

Most definitions of the Information Society offer a quantitative measure (numbers of white-collar workers, percentage of GNP devoted to information, etc.) and assume that, at some unspecified point, we enter an Information Society when this begins to predominate. But there are no clear grounds for designating as a new type of society one in which all we witness is greater quantities of information in circulation and storage. If there is just more information, then it is hard to understand why anyone should suggest that we have before us something radically new.

Against this, however, it may be feasible to describe as a new sort of society one in which it is possible to locate information of a qualitatively different order and function. Moreover, this does not even require that we discover that a majority of the workforce is engaged in information occupations or that the economy generates a specified sum from informational activity. For example, it is theoretically possible to imagine an Information Society where only a small minority of 'information experts' hold decisive power. One need look only to the science fiction (and indeed

his non-fiction observations on science and technology) of H. G. Wells (1866–1946) to conceive of a society in which a knowledge elite predominates and the majority, surplus to economic requirements, are condemned to drone-like unemployment or underemployment. On a quantitative measure, say of the percentage distribution of occupations, this would not qualify for Information Society status, but we could feel impelled to so designate it because of the decisive role of information/knowledge in the power structure and direction of social change.

The point is that quantitative measures – simply more information – cannot of themselves identify a break with previous systems, while it is at least theoretically possible to regard small but decisive qualitative changes as marking a system break. After all, just because there are many more automobiles today than in 1970 this does not qualify us to speak of a ‘car society’. But it is a *systemic* change which those who write about an Information Society wish to spotlight, whether it be in the form of Daniel Bell’s ‘post-industrialism’, or in Manuel Castells’s ‘informational mode of development’, or in Mark Poster’s ‘mode of information’.

This criticism may seem counter-intuitive. So many people insist that ongoing innovation from ICTs has such a palpable presence in our lives that it *must* signal the arrival of an Information Society. These technologies, runs the argument, are so self-evidently novel and important that they must announce a new epoch. Adopting similar reasoning, that there are so very many more signs and signals around than ever apparently *must* mean that we are entering a new world. We may better understand flaws in this way of thinking by reflecting for a while upon food. Readers will agree, I presume, that food is essential to life. A cursory analysis shows that nowadays we have access to quantities and ranges of food that our forebears – even those of just fifty years gone by – could scarcely have dreamed of. Supermarkets, refrigeration, and modern transport mean we get access to food in unprecedented ways and on a vastly expanded scale. Food stores today typically have thousands of products, from across the world, and items such as fresh fruits and flowers round the year.

This much is obvious, but what needs to be added is that this food is remarkably cheap by any past comparison. To eat and drink costs us a much smaller proportion of income than it did our parents (a British household today spends about 10 per cent of its income on food and drink; in 1950 it was 25 per cent), let alone our distant ancestors, who all had to struggle just to subsist. This surfeit of food today, at vastly reduced real prices, means that, for the first time in human history, just about everyone can choose what they eat – Italian tonight, Indian tomorrow, vegetarian for lunch, Chinese later on . . . For most of human history people ate what they could get, and this diet was unrelentingly familiar. Today, due to a combination of agribusiness, factory farming, automation, genetic engineering, globalization, agrichemicals, and so forth (cf. Lang and Heasman, 2004), each of us has ready access to a bountiful supply at massively reduced cost (so much so that obesity and associated ailments such as diabetes and heart complaints are now major health problems in the advanced parts of the world).

My conclusion from this is blunt: food is unquestionably vital to our livelihoods, as it is to our wellbeing and sensual experiences (and health), and it has

become available recently at enormously reduced costs, yet no one has suggested that we live now in the 'Food Society' and that this marks a systemic break with what went before. Why, one must ask, is information conceived so differently?

What is especially odd is that so many of those who identify an Information Society as a new type of society do so by presuming that this qualitative change can be defined simply by calculating how much information is in circulation, how many people work in information jobs and so on. The assumption here is that sheer expansion of information results in a new society. Let me agree that a good deal of this increase in information is indispensable to how we live now. No one can seriously suggest, for instance, that we could continue our ways of life without extensive computer communications facilities. However, we must not confuse the indispensability of a phenomenon with a capacity for it to define a social order. Food is a useful counter-example, surely more indispensable to life even than information, though it has not been nominated as the designator of contemporary society. Throughout, what needs to be challenged is the supposition that quantitative increases transform – in unspecified ways – into qualitative changes in the social system.

The late Theodore Roszak (1986) provided early insight into this paradox in his critique of Information Society themes. His examination emphasizes the importance of qualitatively distinguishing information, extending to it what each of us does on an everyday basis when we differentiate between phenomena such as data, knowledge, experience and wisdom. Certainly these are slippery terms – one person's knowledge attainment (let's say graduation degree) can be another's information (let's say the pass rate of a university) – but they are an essential part of our daily lives. It is vital to our everyday conduct that knowledge conjures organized information (e.g. a conceptual framework, an attested theory), that data implies raw elements such as words and numbers, that wisdom allows for discrimination and evaluation. This is so, albeit those distinctions may blur on the borders of these terms.

In Roszak's view the present 'cult of information' functions to destroy these sorts of qualitative distinctions which are the stuff of real life. It does this by insisting that information is a purely quantitative thing subject to statistical measurement. But to achieve calculations of the economic value of the information industries, of the proportion of GNP expended on information activities, the percentage of national income going to the information professions and so on, the qualitative dimensions of the subject (is the information useful? Is it true or false?) are laid aside. '[F]or the information theorist, it does not matter whether we are transmitting a fact, a judgement, a shallow cliché, a deep teaching, a sublime truth, or a nasty obscenity' (Roszak, 1986, p. 14). These qualitative issues are ignored as information is homogenized and made amenable to numbering: 'information comes to be a purely quantitative measure of communicative exchanges' (p. 11).

The astonishing thing to Roszak is that along with this quantitative measure of information comes the assertion that more information is profoundly transforming social life. Having produced awesome statistics on information activity by blurring the sort of qualitative distinctions we all make in our daily lives,

Information Society theorists then assert that these trends are set to change qualitatively our entire lives. To Roszak (1986) this is the mythology of ‘information’ talk: the term disguises differences between ingredients, but in putting all information into one big pot, instead of admitting that what we get is insipid soup, the perverse suggestion is that we have an elixir. As he says, this is very useful for those who want the public to accede to change since it seems so uncontentious:

Information smacks of safe neutrality; it is the simple, helpful heaping up of unassailable facts. In that innocent guise, it is the perfect starting point for a technocratic political agenda that wants as little exposure for its objectives as possible. After all, what can anyone say against information?

(Roszak, 1986, p. 19)

Rozzak vigorously contests these ways of thinking about information. A result of a diet of statistic upon statistic about the uptake of computers, the data-processing capacities of new technologies and the creation of digitalized networks is that people come readily to believe that information is the foundation of the social system. There is so much of this that it is tempting to agree with those Information Society theorists who insist that we have entered an entirely new sort of system. But against this more-quantity-of-information-to-new-quality-of-society argument Theodore Roszak insists that the ‘master ideas’ (1986, p. 91) which underpin our civilization are not based upon information at all. Principles such as ‘my country right or wrong’, ‘live and let live’, ‘we are all God’s children’ and ‘do unto others as you would be done by’ are central ideas of our society – but all come *before* information. Roszak is not arguing that these and other ‘master ideas’ are necessarily correct (in fact a good many can be noxious – e.g. ‘all Jews are rich’, ‘all women are submissive’, ‘blacks have natural athletic ability’). But what he is emphasizing is that ideas, and the necessarily qualitative engagement these entail, take precedence over quantitative approaches to information.

It is easy to underestimate the importance of ideas in society. They may appear insubstantial, scarcely significant, when contrasted with matters such as technology, increases in productivity, or trillion dollar trading in the currency markets. Yet consider, with Roszak in mind, the import of the following idea:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that amongst these are Life, Liberty, and the Pursuit of Happiness.

(4 July 1776, Declaration of Independence)

These words have echoed round the world, and especially through American history, where the idea that ‘all men are created equal’ has galvanized and inspired many who have encountered a reality that contrasts with its ideal. Abraham Lincoln recalled them on the field of Gettysburg, after a three-day battle that had costs thousands of lives (and a Civil War which to this day cost more

lives – 600,000 – than all succeeding US war casualties combined). Abraham Lincoln evoked the idea of 1776 to conclude his short and hugely influential speech:

Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal . . . we here highly resolve that the dead shall not have died in vain; that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, for the people, shall not perish from the earth.

(Abraham Lincoln, 19 November 1863)

One hundred years later, in Washington at the Lincoln Memorial, Martin Luther King recollected Lincoln's idea. Speaking to a vast crowd of civil rights campaigners, on national television, at a time when in America black people were beaten and even lynched in some states of the Union, Luther King proclaimed:

I have a dream that one day this nation will rise up and live out the true meaning of the creed: 'We hold these truths to be self-evident – that all men are created equal' . . . I have a dream that one day on the red hills of Georgia the sons of former slaves and the sons of former slave owners will be able to sit down together at the table of brotherhood . . . I have a dream that my four little children will one day live in a nation where they will be not judged by the color of their skin but by the content of their character.

(Martin Luther King, 28 August 1963)

This idea was taken up yet again by Barack Obama in his successful 2008 campaign to become the first African American President. Race was certain to play a role in the election given Obama's physical appearance and parentage (a black Kenyan father, a white Kansas mother), his overwhelming support among people of colour, who looked to him to acknowledge and address injustices they continued to suffer, and apprehension and resentment among at least some white voters.

Republican opponents were expected to pick at these tensions for electoral advantage. They duly did when Jeremiah Wright, the pastor of Obama's church in Chicago and the cleric who had officiated at the Obamas' marriage, voiced an incendiary call ('God damn America') in a speech in which he asserted that America had failed her citizens of African descent. There was an immediate media firestorm, with much hostile comment aimed at Wright, replaying of extracts from the inflammatory parts of the speech and much questioning of the appropriateness of a Presidential contender having such a friend, whose views he might be thought to support. For Barack Obama this was an acutely difficult situation: his core constituency would share Wright's disappointment with America, but many other patriots (and whites) would feel anxious and offended. He needed to address his minority supporters while assuaging the wider group, support from whom was crucial for his Presidential hopes.

Obama took on the issues directly in a speech delivered on 18 March 2008 in Philadelphia. In his response the then Senator at once acknowledged the anger and frustration of African Americans, while endeavouring to mollify white voters. He did so by consciously echoing Lincoln's Gettysburg address (his speech opened, tracking Lincoln's, with the words, '200 and 21 years ago'), cited the US Constitution's 1787 goal of 'We the people in order to form a more perfect union' and themed the idea that American history might be flawed, yet always looked to improve as its people came together in adversity: 'This union may never be perfect, but generation after generation has shown it can always be perfected.' By common consent Obama's 'more perfect union' speech was a landmark statement that dissolved the issue of racial conflict for the Presidential campaign. For my purposes here, it signals yet again the import of ideas in building a society, something Information Society theorists appear to ignore.

It is hard to imagine more powerful ideas in the modern world than the assertion that 'all men are created equal' (though a mountain of information can be found that demonstrates that this is not so) and that a nation can strive towards this ideal even if it fails along the way. These notions are at the heart of appeals for democracy, a political ideal rarely met yet unthinkable just three centuries ago. Throughout most human history democracy, the basis of which is the insistence that all are equal, was beyond credence, yet it has come today to be the only universally accepted political creed.

In the struggles for democracy, struggles that continue to this day, but struggles that made much headway in the nineteenth and twentieth centuries, the ideas of the American founding fathers were an essential support to those who demanded elections, suffrage and the secret ballot. Roszak is surely correct to insist that this and similar ideas are more foundational to society than any amount of accumulated information. Accordingly, his objection holds that Information Society theorists reverse this prioritization at the same time as they smuggle in the (false) idea that more information is fundamentally transforming the society in which we live.

What is information?

Rozzak's rejection of statistical measures leads us to consider perhaps the most significant feature of approaches to the Information Society. We are led here largely because his advocacy is to reintroduce qualitative judgement into discussions of information. Roszak asks questions like: does the availability of more information make us better informed? What sort of information is being generated and stored and what value is this to the wider society? What sort of information occupations are expanding, why and to what ends?

What is being proposed here is that we insist on examination of the *meaning* of information. And this is surely a commonsensical understanding of the term. After all, the first definition of information that springs to mind is the *semantic* one: information is meaningful; it has a subject; it is intelligence or instruction about something or someone. If one were to apply this concept of information to an attempt at defining an Information Society, it would follow that we would be discussing these

characteristics of the information. We would be saying that information about *these* sorts of issues, *those* areas, *that* economic process is what constitutes the new age. However, it is precisely this commonsensical definition of information which the Information Society theorists jettison. What is in fact abandoned is a notion of information having a semantic content.

The definitions of the Information Society we have reviewed perceive information in *non-meaningful* ways. That is, searching for quantitative evidence of the growth of information, a range of thinkers have conceived it in the terms of Claude Shannon and Warren Weaver's (1949) information theory (Gleick, 2012). Here a distinctive definition is used, one which is sharply distinguished from the semantic concept in common parlance. In this theory information is a quantity which is measured in 'bits' and defined in terms of the probabilities of occurrence of symbols. It is a definition derived from and useful to the communications engineer, whose interest is with the storage and transmission of symbols, the minimum index of which is on/off (yes/no or 0/1).

This approach allows the otherwise vexatious concept of information to be mathematically tractable, but this is at the price of excluding the equally vexing – yet crucial – issue of meaning and, integral to meaning, the question of the information's quality. On an everyday level when we receive or exchange information the prime concerns are its meaning and value: is it significant, accurate, absurd, interesting, adequate or helpful? But in terms of the information theory which underpins so many measures of the explosion of information these dimensions are irrelevant. Here information is defined independent of its content, seen as a physical element as much as is energy or matter. As one of the foremost Information Society devotees put it:

Information exists. It does not need to be perceived to exist. It does not need to be understood to exist. It requires no intelligence to interpret it. It does not have to have meaning to exist. It exists.

(Stonier, 1990, p. 21)

In fact, in these terms, two messages, one which is heavily loaded with meaning and the other which is pure nonsense, can be equivalent. As Roszak says, here '*information* has come to denote whatever can be coded for transmission through a channel that connects a source with a receiver, regardless of semantic content' (1986, p. 13). This allows us to quantify information, but at the cost of abandonment of its meaning and quality.

If this definition of information is the one which pertains in technological and spatial approaches to the Information Society (where the quantities stored, processed and transmitted are indicative of the sort of indexes produced), we come across a similar elision of meaning from economists' definitions. Here it may not be in terms of 'bits', but at the same time the semantic qualities are evacuated and replaced by the common denominator of price (Arrow, 1979). To the information engineer the prime concern is the number of yes/no symbols; to the information economist it is their vendibility. But as the economist moves from consideration of the concept of information to its measurement, what is lost is the heterogeneity that

springs from its manifold meanings. The 'endeavour to put dollar tags on such things as education, research, and art' (Machlup, 1980, p. 23) unavoidably abandons the semantic qualities of information. Kenneth Boulding observed that

The bit . . . abstracts completely from the content of information . . . and while it is enormously useful for telephone engineers . . . for purposes of the social system theorist we need a measure which takes account of significance and which would weight, for instance, the gossip of a teenager rather low and the communications over the hot line between Moscow and Washington rather high.

(Boulding, 1966, p. 3)

How odd, then, that economists have responded to the qualitative problem which is the essence of information with a quantitative approach that, reliant on cost and price, is at best 'a kind of qualitative guesswork' (Boulding, 1966, p. 3). 'Valuing the invaluable', to adopt Machlup's terminology, means substituting information content with the measuring rod of money. We are then able to produce impressive statistics, but in the process we have lost the notion that information is *about* something (Maasoumi, 1987).

Finally, though culture is quintessentially about meanings, about how and why people live as they do, it is striking that with the celebration of the non-referential character of symbols by enthusiasts of postmodernism we have congruence with communications theory and the economic approach to information. Here too we have a fascination with the profusion of information, an expansion so prodigious that it has lost its hold semantically. Symbols are now everywhere and generated all of the time, so much so that their meanings have 'imploded', hence ceasing to signify.

What is most noteworthy is that Information Society theorists, having jettisoned meaning from their concept of information in order to produce quantitative measures of its growth, then conclude that such is its increased economic worth, the scale of its generation, or simply the amount of symbols swirling around, that society must encounter profoundly meaningful change. We have, in other words, the assessment of information in non-social terms – it just *is* – but we must adjust to its social consequences. This is a familiar situation to sociologists, who often come across assertions that phenomena are aloof from society in their development (notably technology and science), but carry within them momentous social consequences. It is inadequate as an analysis of social change (Woolgar, 1985).

Doubtless being able to quantify the spread of information in general terms has some uses, but it is certainly not sufficient to convince us that in consequence of an expansion society has profoundly changed. For any genuine appreciation of what an Information Society is like, and how different – or similar – it is to other social systems, we surely should examine the meaning and quality of the information. What sort of information has increased? Who has generated what kind of information, for what purposes and with what consequences? As we shall see, scholars who start with these sorts of questions, sticking to questions of the meaning and quality of information, are markedly different in their interpretations from those who operate with non-semantic and quantitative measures. The former are

sceptical of alleged transitions to a new age. Certainly they accept that there is more information today, but because they refuse to see this outside its content (they always ask: what information?) they are reluctant to agree that its generation *per se* has brought about the transition to an Information Society.

Information and being informed

Another way of posing this question is to consider the distinction between *having information* and *being informed*. While being informed requires that one has information, it is a much grander condition than having access to masses of information. Bearing in mind this distinction encourages scepticism towards those who, taken by the prodigious growth of information, seem convinced that this signals a new – generally superior – epoch.

Compare, for instance, nineteenth-century political leaders with those of today. The reading of the former would have been restricted to classical philosophers, the Bible and Shakespeare, and their education was often inadequate and curtailed. Contrasted with George W. Bush (US President 2000–8), who had to hand all the information resources imaginable, thousands of employees to ensure that there were no unnecessary information gaps, and the advantage of a Princeton education, the likes of John Adams (President 1797–1801), George Washington (1789–97) and Abraham Lincoln (1861–5) were informationally impoverished. Former President Bush even has a dedicated library and museum housed in Dallas that boasts 70 million pages of textual materials, 200 million e-mails, 4 million photographs and 80 terabytes of electronic records (<http://www.georgewbushlibrary>). Beside this Adams, Washington and Lincoln were informationally destitute. But who would even imagine that these earlier Presidents were less well informed, with all that this conjures regarding understanding and judgement, than this recent President of the United States of America?

Information quality

Emphasizing that information has meaning raises questions concerned with the quality of information that, in turn, encourage a critical look at those who claim we have entered an Information Society. Almost invariably this is presented as a superior, smarter, epoch, where people have access to sophisticated technologies and a superabundance of information is available to them in an instant. For sure, there is much more information available than ever before, but it ought not to be assumed that this necessarily brings an improvement. Numerous thinkers have raised doubts about this that at least might make one hesitate before endorsing a good many Information Society scenarios.

In Chapter 8 we meet Herbert Schiller's scathing dismissal of 'garbage information' that is comparable to 'junk food': as the latter is bad for the body, so the former is bad for the mind since it fills with celebrity guff, marketing trickery and trivia. Other observers express concern about the 'dumbest generation' (Bauerlein, 2009) and the amnesia of audiences locked into an internet loop (Jacoby, 2008) of

escapist games and Facebook chit chat. Breathtaking levels of ignorance (unable to identify the Allies and Axis forces of Second World War, incapable of naming the great offices of State, unaware of the periodic table in chemistry . . .) coincide with extensive knowledge of the lives of ephemeral celebrities and soap television plots.

The image of the youngster immediately able to find out something or other on Wikipedia or Google yet who lacks comprehension of its import might be contrasted with the assiduous and close reader and note taker of texts from which a deep understanding and appreciation may be gleaned. One might get a résumé of *Hamlet* double quick from the internet, but a slow attentive reading is much more likely to develop a grasp of character, of connections with themes, of style and language, as it is to leave recipients with a more profound memory of the work such that it sinks into their consciousness. To be sure, such slow reading takes time and effort, but it is a serious concern that the world of the internet and saturation media provides such an excess of superficial and fragmented gobbets of information, perhaps with serious consequences for learning and the mind. The internet trades in popularity, not in the quality, of information. Thus the Google algorithm ranks sources by search hits, not by their scholarship, accuracy or peer review. As 'to Google' becomes the first step for youngsters seeking out information, one needs to warn of this decline of authoritative and ascertained information (Keen, 2008).

Nicholas Carr's (2010) polemic, *The Shallows*, suggested another aspect of concern about digital information when he reflected that 'I'm not thinking the way I used to think . . . immersing myself in a book or a lengthy article used to be easy . . . Now my concentration often starts to drift away after two or three pages. I get fidgety, lose the thread, begin looking for something else to do . . . The deep reading that used to come naturally has become a struggle' (pp. 5–6). There may be no definitive evidence of this loss of capacity, but it is commonplace among university teachers to say that their net-era students are reluctant to read deeply or closely, preferring a short and accessible bullet-point review of the salient points (Benton, 2008; Richel, 2010; cf. Birkerts, 1994). Moreover, the research that has become available to date on use of the internet shows that just about everyone is a superficial 'grazer', 'bouncer' or 'skimmer', one who typically undertakes a quick Google search and then rushes through the first page or so of results, merely scanning the texts for 'main points' (Nicholas and Rowlands, 2008).

It might be countered that the vastly expanded amount of information we have nowadays means that people will be able to think outside their comfort zones, since they will be exposed to diverse ranges of perspectives on any given issue. Thus diversity of points of view might even compensate for superficiality. Unfortunately, evidence suggests that users of the internet do not journey far in their imaginations, whatever the diversity of information available, since they prefer to stay with the familiar. People seem to engage in 'cocooning', in wrapping their ideas and identities in a layer that insulates them from outside challenge (Sunstein, 2006). Further, the problem of information overload (not a new one, but considerably exacerbated by recent developments) means that people need to ignore large amounts of information just to get through the day. The most convenient editing mechanism is to allow in only that which one approves, thereby avoiding the uncomfortable and challenging.

In addition, there is evidence to suggest that encounters with alternative information do not change the minds of audiences. Indeed, beliefs appear to override facts, such that when opinions are contested, people resist and retrench, insisting the facts are wrong and that 'I just know I'm right' (Nyhan and Reifer, 2010, 2012). Manuel Castells (2009) reviews the field and comes to this conclusion too: those interested in effecting change should not struggle to persuade others of their views on the basis of superior information (fuller, better researched, more evidence based . . .) since that is futile. It is better to address those one seeks to persuade in terms of the emotional frames they possess and which have been fixed in early life and are pretty much unalterable (Castells, 2009, pp. 137–92). Clearly, when it comes to conceiving of an Information Society there are reasons against assuming that simply more information takes us there.

Theoretical knowledge

There is one other suggestion which can contend that we have an Information Society, though it has no need to reflect on the meanings of the information so developed. Moreover, this proposition has it that we do not need quantitative measures of information expansion such as occupational expansion or economic growth, because a decisive qualitative change has taken place with regard to the ways in which information is used. Here an Information Society is defined as one in which theoretical knowledge occupies a pre-eminence which it hitherto lacked. The theme which unites what are rather disparate thinkers is that in this Information Society (though the term knowledge society may be preferred, for the obvious reason that it evokes more than agglomerated bits of information) affairs are organized and arranged in such ways that theory is prioritized. Though this priority of theoretical knowledge gets little treatment in Information Society theories, it has a good deal to commend it as a distinguishing feature of contemporary life. In this book I return to it periodically (especially in Chapters 4, 6, 11 and 13), so here I need only briefly comment.

By theoretical knowledge is meant that which is abstract, generalizable and codified in media of one sort or another. It is abstract in that it is not of direct applicability to a given situation, generalizable in so far as it has relevance beyond particular circumstances, and it is presented in such things as books, articles, television and educational courses. It can be argued that theoretical knowledge has come to play a key role in contemporary society, in marked contrast to earlier epochs when practical and situated knowledge were predominant. If one considers, for instance, the makers of the Industrial Revolution, it is clear that these were what Daniel Bell has referred to as 'talented tinkers' who were 'indifferent to science and the fundamental laws underlying their investigations' (1973, p. 20). Abraham Darby's development of the blast furnace, George Stephenson's railway locomotive, James Watt's steam engines, Matthew Boulton's engineering innovations, and any number of other inventions from around 1750 to 1850 were the products of feet-on-the-ground innovators and entrepreneurs, people who faced practical problems to which they reacted with practical solutions. Though by the

end of the nineteenth century science-based technologies were shaping the course of industry, it remained the case that just a century ago

vast areas of human life continued to be ruled by little more than experience, experiment, skill, trained common sense and, at most, the systematic diffusion of knowledge about the best available practices and techniques. This was plainly the case in farming, building and medicine, and indeed over a vast range of activities which supplied human beings with their needs and luxuries.

(Hobsbawm, 1994, p. 525)

In contrast, today innovations start from known principles, most obviously in the realms of science and technology (though these principles may be understood only by a minority of experts). These theoretical principles, entered in texts, are the starting point, for instance, of the genetic advances of the Human Genome Project and of the physics and mathematics which are the foundation of ICTs and associated software. Areas as diverse as aeronautics, plastics, medicine and pharmaceuticals illustrate realms in which theoretical knowledge is fundamental to life today.

One ought not to imagine that theoretical knowledge's primacy is limited to leading-edge innovations. Indeed, it is hard to think of any technological applications in which theory is not a prerequisite of development. For instance, road repair, house construction, sewage disposal or motor car manufacture are each premised on known theoretical principles of material durability, structural laws, toxins, energy consumption and much more. This knowledge is formalized in texts and transmitted especially through the educational process, which, through specialization, means that most people are ignorant of the theoretical knowledge outside of their own expertise. Nonetheless, no one today can be unaware of the profound importance of this theory for what one might conceive as everyday technologies such as microwave ovens, compact disc players and digital clocks. It is correct, of course, to perceive the architect, water engineer and mechanic to be practical people. Indeed they are: but one ought not to overlook the fact that theoretical knowledge has been learned by these practitioners and in turn integrated into their practical work (and often supplemented by smart technologies of testing, measurement and design which have incorporated theoretical knowledge).

The primacy of theoretical knowledge nowadays reaches far beyond science and technology. Consider, for instance, politics, and one may appreciate that theoretical knowledge is at the core of much policy and debate. To be sure, politics is the 'art of the possible', and it must be able to respond to contingencies, yet, wherever one looks, be it transport, environment or the economy, one encounters a central role ascribed to theory (cost-benefit analysis models, concepts of environmental sustainability, theses on the relationship between inflation and employment). In all such areas criteria which distinguish theoretical knowledge (abstraction, generalizability and codification) are satisfied. This theoretical knowledge may lack the law-like character of nuclear physics or biochemistry, but it does operate on similar grounds, and it is hard to deny that it permeates enormous amounts of contemporary life.

Indeed, a case can be made that theoretical knowledge enters into just about all aspects of contemporary life. Nico Stehr (1994), for example, suggests it is central to all that we do, from designing the interior of our homes to deciding upon an exercise regime to maintain our bodies. This notion echoes Giddens's conception of 'reflexive modernisation', an epoch which is characterized by heightened social and self-reflection as the basis for constructing the ways in which we live. If it is the case that, increasingly, we make the world in which we live on the basis of reflection and decisions taken on the basis of risk assessment (rather than following the dictates of nature or tradition), then it follows that nowadays enormous weight will be placed upon theoretical knowledge to inform our reflection. For instance, people in the advanced societies are broadly familiar with patterns of demography (that we are an ageing population, that population growth is chiefly from the southern part of the world, that migration is at a much higher rate than previously), of birth control and fertility rates, as well as of infant mortality. Such knowledge is theoretical in that it is abstract and generalizable, gathered and analysed by experts and disseminated in a variety of media. Such theoretical knowledge has no immediate application, yet it undoubtedly informs both social policy and individual planning (from pension arrangements to when and how one has children). In these terms theoretical knowledge has come to be a defining feature of the world in which we live.

It is difficult to think of ways in which one might quantitatively measure theoretical knowledge. Approximations such as the growth of university graduates and scientific journals are far from adequate. Nonetheless, theoretical knowledge could be taken to be the distinguishing feature of an Information Society as it is axiomatic to how life is conducted and in that it contrasts with the ways in which our forebears – limited by their being fixed in place, relatively ignorant and the forces of nature – existed. As I have said, few Information Society thinkers give theoretical knowledge attention. They are drawn much more to technological, economic and occupational phenomena, which are more readily measured, but which are only loosely related to theory. Moreover, it would be difficult to argue convincingly that theoretical knowledge has assumed its eminence just in recent decades. It is more persuasive to regard it as the outcome of a tendential process inherent in modernity itself, one that accelerated especially during the second half of the twentieth century and continues in the twenty-first, leading to what Giddens designates as today's 'high modernity'.

Conclusion

This chapter and Chapter 2 have raised doubts about the validity of the notion of an Information Society. On the one hand, we have encountered a variety of criteria which purport to measure the emergence of the Information Society. In the following chapters we encounter thinkers who, using quite different criteria among themselves, can still argue that we have or are set to enter an Information Society. One surely cannot have confidence in a concept when its adherents diagnose it in quite different ways. Moreover, these criteria, ranging from technology, to occupational

changes, to spatial features, though they appear at first glance robust, are in fact somewhat vague and imprecise, incapable on their own of establishing whether or not an Information Society has arrived or will arrive some time in the future. No one can doubt that there has been an information explosion in recent decades (cf. Hilbert, 2012), however one tries to measure the phenomenon in terms of consumption, storage, transmission or even transformation. However, *more* of itself cannot distinguish the emergence of a new type of society.

On the other hand, and something which must make one more sceptical of the Information Society scenario (while not for a moment doubting that there has been an extensive informatization of life), there is the recurrent shift of its proponents from seeking quantitative measures of the spread of information to the assertion that these indicate a qualitative change in social organization. The same procedure is evident too in the very definitions of information that are in play, with Information Society subscribers endorsing non-semantic definitions. These – so many ‘bits’, so much economic worth – are readily quantifiable, and thereby they alleviate the need for analysts to raise qualitative questions of meaning and value. However, as they do so they fly in the face of commonsensical definitions of the word, conceiving information as being devoid of content. As we shall see, those scholars who commence their accounts of transformations in the informational realm in this way are markedly different from those who, while acknowledging an explosion in information, insist that we never abandon questions of its meaning and purpose.

Finally, the suggestion that the primacy of theoretical knowledge may be a more interesting distinguishing feature of the Information Society has been mooted. This neither lends itself to quantitative measurement nor requires a close analysis of the semantics of information to assess its import. Theoretical knowledge can scarcely be taken to be entirely novel, but it is arguable that its significance has accelerated and that it has spread to such an extent that it is now a defining feature of contemporary life. I return to this phenomenon periodically in what follows, though I would emphasize that few Information Society enthusiasts pay it the attention it deserves.

Post-industrial society: Daniel Bell

Among those thinkers who subscribe to the notion that a new sort of society is emerging, the best-known characterization of the 'Information Society' is Daniel Bell's theory of post-industrialism. The terms are generally used synonymously. Though Bell coined the term post-industrial society (PIS) as long ago as the late 1950s, he took to substituting the words 'information' and 'knowledge' for the prefix 'post-industrial' round about 1980 when a resurgent interest in futurology was swelled by interest in developments in computer and communications technologies.

Nonetheless, Daniel Bell (1919–2011) had from the outset of his interest in PIS underlined the central role of information/knowledge.¹ *The Coming of Post-Industrial Society*, a sophisticated sociological portrait of an embryonic future which was first published as a book in 1973, though it had appeared in essay form earlier, fitted well with the explosive technological changes experienced by advanced societies in the late 1970s and early 1980s. Faced with the sudden arrival of new technologies which rapidly permeated into offices, industrial processes, schools and the home – computers soon seemed *everywhere* – there was an understandable and urgent search to discover where all these changes were leading. With, as it were, a ready-made model available in Daniel Bell's *The Coming of Post-Industrial Society* (1973), we should perhaps not be surprised that many commentators took it straight from the shelf. It did not matter much that Bell offered 'the concept of a post-industrial society [as] an *analytical construct*, not a picture of a specific or concrete society' (Bell, 1973, p. 483). PIS just seemed, especially to journalists and speech-writers, to be *right* as a description of the coming world. Bell appeared to have foreseen the turmoil that computer communications technologies especially were bringing into being. Indeed, he had written earlier of the need for a massive expansion of these information technologies to accommodate wider changes, and here they were, apparently fulfilling his prognosis. Understandably, then, he got the credit. In such circumstances, it is perhaps not surprising that Bell adopted the fashionable language of the 'information revolution'. Given his pioneering of the sociology of PIS this is a forgivable conceit.

Moreover, while excitement about the 'mighty micro' diminished in the late 1980s, and with this came a waning interest in futurology, the development of the internet and World Wide Web has encouraged a revival of interest in forecasting the future. Bell's name has less frequently been drawn upon over the last decade, where the likes of Bill Gates are more revered, but the foundation figure remains

Daniel Bell, who does not now receive the recognition that is his due. Bell's vision, his concepts and analyses, lit the way for most thinking on the subject.

It is not difficult to pick holes in a conception that has been open to scrutiny for almost fifty years. Little social science lasts even a decade, so it is testament to Daniel Bell's powerful imagination and intellect that, still now, any serious attempt to conceptualize the 'information age' needs to go back to his *The Coming of Post-Industrial Society*. The book is indeed an academic *tour de force*. Krishan Kumar (1978), Bell's sharpest critic, concedes this when he describes the theory of post-industrialization as 'intellectually bolder and tougher by far than anything else . . . in the literature of futurology' (p. 7). There were other social scientists in the 1960s commenting on the direction of change, and a good many of these placed emphasis on the role of expertise, technology and knowledge in looking into the future. None, however, presented such a systematic or substantial account as did Bell. Further, Bell's theory of post-industrialism was the first attempt to come to grips with information and the developing information technologies, and this pioneering effort established principles which still retain force (cf. Touraine, 1971).

Daniel Bell is a thinker of the very first rank (Jumonville, 1991; Liebowitz, 1985; Waters, 1996). He is the author of numerous highly impressive and influential works, from *The End of Ideology* (1961, revised 1962) and the seminal *Cultural Contradictions of Capitalism* (1976) to *The Coming of Post-Industrial Society* itself. To appreciate Daniel Bell it is necessary to know something about his intellectual style, his concerns and the historical context in which his work was produced. First off, while he does indubitably produce a theory of post-industrial society, Daniel Bell is not an armchair theorist in the sense of being a constructor of unworldly models. On the contrary, Bell's approach is as one intensely engaged with the world, one who seeks to theorize – i.e. to produce generalizable statements – on the basis of close analysis of what is actually going on. In this way his theory and substantive analyses are intimately tied. One ought not to be surprised about this. Bell's background and being made him passionately concerned about understanding the world, the better to change it. The son of impoverished Polish immigrants named Bolotsky, born in poverty in the Lower East Side of New York City and fatherless at the age of eight months, Bell (1991) was politically engaged from his early teens. Later on he was a journalist covering labour affairs before taking a position at Columbia University and developing into one of the most influential of the enormously talented and driven 'New York intellectuals', a cohort that included such luminaries as Seymour Martin Lipset, Irving Howe and Sidney Hook (Bloom, 1986).

Such characteristics do not fit easily with a narrow scholastic career, even if they express a particular version of the American Dream – as with many of his peers, born poor and ghettoized, children of immigrants, from a persecuted ethnic minority, successful by their own talent and dedication. Though he did eventually achieve a chair at Harvard University, Bell did not sit easily within professional Sociology. He began work as a journalist, but drifted into academe. A doctorate is essential to secure academic positions in the USA and is intended as evidence of technical accomplishment, but Bell did not study for one. Instead he bundled some essays he had previously written to get the award and to ensure his employment at Columbia University. He then published the dissertation as *The End of Ideology*,

a hugely influential book. Moreover, the questions he addresses are too big and unwieldy, too capacious and ambitious, to allow for the meticulously designed research investigations so much approved of by the professional mainstream. Bell is technically not the most accomplished of Sociologists, preferring references to the Bible and Shakespeare to the contingency tests on survey data. He has been a prolific writer, but most of his publications have been outside the mainstream. Instead of the refereed journal, Bell favoured publications like *Dissent*, the *New Leader* and the *Public Interest*, intelligent journals aimed at the policy maker and political thinker. Were he writing in Britain today, it is hard to imagine much of his work appearing in the *Sociological Review*; much more likely is that it would be published in *Prospect*, the *New Left Review* and the *London Review of Books*.

This does not mean that Bell can be dismissed as partisan. He is politically engaged, but this does not mean that he lacks the necessary detachment for good quality academic work. Rather it means that his work is shot through with an urgent desire to make sense of the world, the better that we may understand that which we wish to change. This quality is expressed also in his drive to address big issues. Bell sets out to identify the most consequential features of society today, its distinguishing elements and the mainsprings of its changes. This is the concern of his theorizing, the ambition to map the major contours of contemporary life. With regard to professional Sociology this sets Bell somewhat apart, resulting, in my view, in a lack of acknowledgement among peers. On the one hand, this focus on big questions has alienated those professionals focused on manageable topics, perhaps a case study of the creation of a piece of software or the interactions among a group of scientists. To such scholars, Bell seems too quick to generalize, somewhat crude in his explanations, when what is preferable are intricate accounts of the complexity and contingency of particular phenomena (Webster, 2005).

On the other hand, Bell's conviction that theory should be intimately engaged with the world sets him against those in Sociology who conceive Theory as removed from substantive matters, so that it might be systematically elaborated free from contamination. It was Bell's misfortune that *The Coming of Post-Industrial Society* was published at a time when much Sociology was sceptical of his big-picture approach and when Theory aspired to approximate to Philosophy (Mouzelis, 1995). The result was often a hostile response to Bell within the discipline. He was attacked for oversimplification and political partisanship from one side, while from another his theoretical pretensions were too tied up with empirical analysis to satisfy those who saw Theory as unrelentingly abstract (and the better for that).

This may account for *The Coming of Post-Industrial Society* appearing in the early 1970s but quickly going out of print, despite the fact that it powerfully addressed emergent trends and resonated with many outside academe. It is my view that Daniel Bell's determination to paint the big picture while insisting on the indivisible ties between the construction of theory and analysis of real-world evidence represents a fine tradition in Sociology, one that has often found itself slighted in professional circles. It is something he shares with such as the late Ralph Miliband (1924–94) and Ralph Dahrendorf (1929–2009), who, like Bell, have suffered reputationally because their approach was not fashionable in the mainstream profession.

It will be evident that I much admire Daniel Bell and feel that professionally he has not received the due recognition that he – and the sort of Sociology he represents – altogether deserves. For sure, his contribution towards understanding the Information Society, despite some initial interest, was too quickly sidelined. In this chapter I shall focus on the notion of post-industrial society, and, despite my admiration, I shall be critical of the theory. I shall argue that PIS is untenable and that there is reliable evidence to demonstrate this. That his post-industrial theory has been shown to be incorrect is not inconsistent with admiration of Bell's endeavours. In my view he asks the right questions in an appropriate way. As such, he is always pertinent and provocative.

That said, it is worth asking why it is that Bell's post-industrial conception manages to retain appeal among many Information Society adherents. Shallow commentators on the Information Society often appropriate Bell's image of post-industrialism. They seem to say, 'This is a "post-industrial Information Society"'. For heavyweight elaboration, see Harvard Professor Daniel Bell's 500-page tome.' Such an appeal gives authority, insight and gravitas to articles, books and television specials that offer exaggerated propositions about the direction and character of the present times and which deserve little serious attention. To demonstrate that PIS is an untenable notion is therefore to undermine a plank of much popular commentary on the conditions in which we find ourselves.

However, it would be unjust to condemn Bell for mistakes in his sociology, and still more unworthy to try to dismiss him because of the company in which he finds himself. Daniel Bell cannot do much about lesser thinkers hanging on to his coat tails anyway, but, as regards his sociological misunderstandings, before we detail them let us give applause for his capacity to get us thinking seriously about the type of society in which information comes to play a more central role. PIS may be inadequately conceived and empirically flawed, contradictory and inconsistent, but Bell's best-known work, *The Coming of Post-Industrial Society*, is, to borrow a phrase from George Orwell, a 'good bad book'. Futurists like Alvin Toffler, Nicholas Negroponte and John Naisbitt, whose paperback speculations capture the largest audiences, merely produce bad books: intellectually slight, derivative, analytically inept and naïve on almost every count. Daniel Bell, on the other hand, produces 'good bad' work. There may be many things wrong with it, but we should acknowledge its qualities: it is academically rich, boldly constructed, imaginative, a scholar's delight, altogether a remarkably impressive achievement.

Bell contends that we are entering a new system, a post-industrial society, which, while it has several distinguishing features, is characterized throughout by a heightened presence and significance of information. As we shall see, Daniel Bell argues that information and knowledge are crucial for PIS both quantitatively and qualitatively. On the one hand, features of post-industrialism lead to greater amounts of information being in use. On the other hand, Bell claims that in the post-industrial society there is a qualitative shift evident especially in the rise to prominence of what he calls 'theoretical knowledge'. In the world of PIS, in other words, there is not just more information; there is also a different kind of information/knowledge in play. With such features, it will be readily appreciated why Bell's theory of 'post-industrialism' appeals to those who want to explain the emergence of an 'Information Society'.

He is undeniably correct in his perception of increases in the part played by information in social, economic and political affairs. However, Daniel Bell is mistaken in interpreting this as signalling a new type of society – a ‘post-industrial’ age. Indeed, PIS is unsustainable once one examines it in the light of real social trends – i.e. when the ‘analytical concept’ is compared to the substance of the real world, it is found to be inapplicable. Further, PIS is sustainable as an ‘ideal type’ construct only by adopting a particular theoretical starting point and methodological approach to social analysis that is shown to be faulty when one comes to look at real social relations. In short, the project is flawed empirically, theoretically and methodologically, as the remainder of this chapter will demonstrate. As I write such a bald critical condemnation, I am impelled to urge readers to engage directly with Daniel Bell’s publications. He may be mistaken, but his ambition and scholarship cannot fail to address an open mind.

Neo-evolutionism

Daniel Bell suggests that the United States leads the world on a path towards a new type of system – the post-industrial society. Though he does not claim outright that the development of PIS is an inevitable outcome of history, he does think it is possible to trace a movement from pre-industrial, through industrial, to post-industrial societies. There is a distinctive trajectory being described here and it obviously holds to a loose chronology. Certainly it is not difficult to apply Bell’s terms to historical periods. For example, Britain in the early eighteenth century was pre-industrial, i.e. agricultural; by the late nineteenth century it was distinctively industrial, i.e. manufacturing was the emphasis; and nowadays signs of post-industrialism are clear for all to see, i.e. services predominate. It is hard, looking at Bell’s route planning, to resist the view that the motor of history is headed towards a fully fledged PIS. Indeed, Bell was confident enough of its direction to contend in the early 1970s that post-industrialism ‘will be a major feature of the twenty-first century . . . in the social structures of the United States, Japan, the Soviet Union, and Western Europe’ (Bell, 1973, p. x).

Evolutionist thinking has usually been out of favour in social science circles, though it does have a habit of coming and going. Redolent as it is of Social Darwinism, of that rather smug attitude that we (authors of books who happen to live comfortably in the richest countries of the world) inhabit a society towards which all other, less fortunate, ones should aspire and are moving anyway, evolutionism can be hard to defend. It can seem distastefully self-satisfied and, moreover, is intellectually vulnerable to a number of charges. Two of these are connected and especially noteworthy. The first is the fallacy of *historicism* (the idea that it is possible to identify the underlying laws or trends of history and thereby to foresee the future). The second is the trap of *teleological* thinking (the notion that societies change towards some ultimate goal). In contemporary terms, evolutionist thinking – and critics would say Bell is an evolutionist – suggests history has identifiable trends of development in the direction of Western Europe, Japan and, especially, the United States. It follows from this that, somehow, people do not have to do anything, or

even worry much, about the problems they encounter in their own societies – injustices, inequalities, the fickleness or obduracy of human beings – because the logic of history ensures that they move inexorably onwards and upwards towards a better and more desirable order.

Daniel Bell is far too sophisticated a thinker to fall for these charges. Indeed, it is a feature of his work that he is alert to these and other related and well-rehearsed shortcomings of social science (such as, as we shall see, technological determinism and technocratic assumptions). He is quick to repudiate such accusations, though for sure denial alone does not ensure innocence.² My view is that it is difficult to avoid the conclusion that PIS is a superior form of society to anything that has gone before, just as it is hard to resist the idea that we are moving ineluctably towards ‘post-industrialism’ due to underlying social trends. When I review Bell’s description of PIS, readers will be able to gauge this commitment to evolutionist premises for themselves.

Separate realms

But, first, an important theoretical and methodological point that is fundamental to Daniel Bell’s outlook. In his view PIS emerges through changes in *social structure* rather than in politics or culture. Its development most certainly ‘poses questions’ (Bell, 1973, p. 13) for the polity and cultural domain, but Bell is emphatic that change cannot be seen to be emanating from any one sector to then influence every other dimension of society. In his view advanced societies are ‘radically disjunctive’ (Bell, 1980, p. 329). That is, there are independent ‘realms’ – social structure, polity and culture – which have an autonomy one from another such that an occurrence in one realm cannot be presumed to shape another. For instance, if something were to change in the economy, it might certainly present politicians with opportunities or challenges, but Bell insists that it does not automatically call forth a retort: the realm of social structure (which includes the economy) is one thing, the polity quite another.

Put in other terms, Bell is an *anti-holist*, iterating over and over again that societies are *not* ‘organic or so integrated as to be analysable as a single system’ (Bell, 1973, p. 114). He determinedly rejects all totalistic/holistic theories of society, whether (and especially) they come from the Left and conceive of capitalism as something which intrudes into every aspect of society, or are more Conservative and believe society functions in an integrative manner, tending towards order and equilibrium because each part lends support to the other. Against these approaches Bell divides contemporary societies, apparently arbitrarily (why just three realms? Why not an independent realm for law, family or education?), into the three realms of social structure, politics and culture. As I have said, Professor Bell does not offer an argument for there being ‘disjunctive realms’ in the modern world: there just *are* separate spheres and the social scientist who fails to acknowledge the fact is in error.

Readers may feel somewhat flummoxed at my making this seemingly abstruse point. Why bother with Bell’s insistence that societies are divided into separable

realms? The reason is that, as we shall see, it is pivotal for several aspects of Bell's thought. First, it enables him to hold apparently contradictory views simultaneously. Bell's much-repeated claim that 'I am a conservative in culture; socialist in economics; liberal in politics' (Bell, 1976, p. xi) hinges on his conviction that there are three autonomous spheres towards which he can have different views. So long as he can hold that culture is separate from economics, economics from politics and so on, Bell can appear to be credible in all three roles – rather than a confused and contradictory thinker who lacks consistency.

Second, this radical separation of realms enables Bell to sidestep awkward questions of the degree to which developments in any one realm exert influence on another. He can, and he does, concede that there are 'questions' posed by events in one sphere for others – but he goes no further than this, concluding that his concern is only with one particular realm. And that is surely not acceptable. Since Bell can insist that the realms are independent, he can evade the awkward issue of stipulating the inter-realm relationships by returning again and again to his theoretical and methodological premise.

Third, Bell offers us no evidence or argument to justify his starting point (Ross, 1974, pp. 332–4). Since in the everyday world of human existence issues pose themselves in ways which involve the interconnections of culture, politics and social structure, it is surely, at the least, evasive, possibly even an intellectual cheat, for Bell to insist on their 'radical disjuncture'. To be sure, one can be leery of collapsing things into all-encompassing categories, but a retort that proclaims the radical independence of parts is at best naïve. Culture has some autonomy from social structure, no doubt, but it is impossible to ignore ways in which, for instance, market practices enter into, say, the making and distribution of movies or television shows, or ways in which class relationships affect educational experiences, and matters such as what sorts of people become authors read by particular types of audiences. Intellectual honesty demands that one examine the character of these interconnections of relatively independent parts.

Fourth, one of the most striking features of Bell's account of PIS is that it reveals the breakdown of a one-time 'common value system' (Bell, 1973, p. 12) which held throughout society, but which is now being destroyed. Indeed, he insists that 'in our times there has been an increasing disjunction of the three [realms]' (p. 13). The organizing theme of the brilliant *The Cultural Contradictions of Capitalism* (1976) is the breakdown of a once integrated cultural ethos and requirements of the social structure (Bell argues that it was the nineteenth-century Protestant character structure, sober, restrained and hard-working, which suited socio-economic development particularly well by encouraging investment and thrift). Furthermore, in *The Coming of Post-Industrial Society*, Bell highlights trends, such as the increased presence of professionals, that have important consequences for politics (the once common query: *will professionals rule?*). In drawing attention to such issues Bell is surely underlining the significance, *not* of the disjunction of realms, but of their *interconnectedness*. How did a once unified culture and social structure come apart and, another side of the same coin, how many and what sort of linkages remain? If developments in one realm really do

have consequences for another, then just what is their nature? As critic Peter Steinfels observes:

Not only is it obvious that the three realms are inextricably intertwined, it is precisely their interrelationships that intensely concern Bell. For all his analytical division of the three realms, he cannot get away from the notion of society as a whole; it crops up again and again in his prose, it is implied when it is not made explicit, it is the very object of his disquietude . . . [This being so] Bell needs a theory of the relationship between realms as well as a theory of their divergences . . . It need not be a simple theory of determination by one realm . . . but it does need to specify somewhat the extent and the directions and the modes of interaction.

(Steinfels, 1979, p. 169)

Post-industrial society

As I outline his description of PIS, readers will need to bear in mind this premise of Daniel Bell's work, that social structure is separate from politics. Bell contends that PIS emerges from changes *only* in the social structure. This includes the economy, the occupational structure and the stratification system, but excludes politics and cultural issues. *The Coming of Post-Industrial Society* is therefore an account of changes taking place in one sector of society only – and one must not presume, says Bell, that these are the most consequential parts.

Bell offers a typology of different societies that is dependent on the predominant mode of employment at any one stage of development. In his view the type of work that is most common becomes a defining feature of particular societies. Thus Bell suggests that while in pre-industrial societies agricultural labour is pretty well ubiquitous, and in industrial societies factory work is the norm, in post-industrial societies it is service employment which predominates.

Why these changes should have happened is explained by Bell when he identifies increases in productivity as the key to change. The critical factor in moving from one society to another is that it becomes possible to get 'more for less' from work because of the application of the principle of 'rationalization' (efficiency). In the pre-industrial epoch everyone had to work the land just to eke out a subsistence existence. However, as it becomes feasible to feed an entire population without everyone working on the land (for example through improved agricultural practices, crop rotation and animal husbandry), so it becomes possible to release a proportion of the people from farms so they may do other things while still being assured of an adequate food supply. Accordingly, they drift to the towns and villages to supply growing factories with labour, while buying their food from the excess produced in the country. As the process continues, thanks to increased agricultural surpluses provided by an increasing minority of the population (the more farming rationalizes in techniques and technologies, the more it produces with fewer workers), so it becomes possible to release most people from farming to work in the burgeoning factory system. The process has never stopped in agriculture, so

that today tiny numbers are employed in farming, yet productivity is enormous because of high technology such as combine harvesters, intensive animal husbandry and genetic engineering. Once just about everyone in Britain worked the land out of necessity and just to subsist; today less than 3 per cent of the workforce supplies well over half of the entire nation's food.

With the progression of this process, we enter the industrial era, where factory labour begins to predominate. And always the 'more for less' principle tells. Hence industrial society thrives by applying more and more effective techniques in the factories that in turn lead to sustained increases in productivity. Steam power reduces the need for muscle power while increasing output; electricity allows assembly lines to operate that produce on a mass scale goods that once would have been luxuries; already now there are factories where scarcely any workers are required because of sophisticated computers. The history of industrialization can be written of as the march of mechanization and automation that guaranteed spectacular increases in productivity. The indomitable logic is more output from fewer and fewer workers.

As productivity soars, surpluses are produced from the factories that enable expenditures to be made on things once unthinkable luxuries: for example teachers, hospitals, entertainment, even holidays. In turn, these expenditures of industrial-earned wealth create employment opportunities in services, occupations aimed at satisfying new needs that have emerged, and have become affordable, courtesy of industrial society's bounty. The more wealth industry manages to create, and the fewer workers it needs to do this thanks to technical innovations (the familiar motor of 'more for less'), the more services that can be afforded and the more people that can be released from industry to find employment in services.

So long as this process continues – and Bell insists that it is ongoing as we enter PIS – we are assured of:

- a decline of workers employed in industry, ultimately reducing to a situation where very few people find work there (the era of 'robotic factories', 'total automation', etc.);
- accompanying this decline in industrial employment, continuing and sustained increases in industrial output because of unrelenting rationalization;
- continued increases of wealth, translated from industry's output, which may be spent on new needs people may feel disposed to originate and fulfil (anything from hospital facilities to masseurs);
- continuous release of people from employment in industrial occupations;
- creation of a never-ending supply of new job opportunities in services aimed at fulfilling the new needs that more wealth generates (i.e. as people get richer they discover new things to spend their money on and these require service workers).

Bell's identification of post-industrialism draws on familiar empirical social science. It is undeniably the case, one detailed as long ago as 1940 by Colin Clark and quantified later by, among others, Victor Fuchs (1968), that there has been a marked decline of primary (broadly agricultural and extractive industries) and secondary

(manufacturing) sector employment and a counterbalancing expansion of tertiary, or service sector, jobs. For Bell, as we shall see in a moment, a 'service society' is a post-industrial one too.

However, prior to elaborating that, we must emphasize that service sector employment is, in a very real sense, the end of a long history of transfers of employment from one sector to another. The reasoning behind this is straightforward: the ethos of 'more for less' impels automation of first agriculture and later industry, thereby getting rid of the farm hand and later the industrial working class while simultaneously ensuring increased wealth. To thinkers like Bell these redundancies are a positive development since, towards the end of the 'industrial society' era, it at once gets rid of unpleasant manual labour and, simultaneously, it abolishes radical politics – or, more accurately, Marxist political agitation, since, asks Bell pointedly, how can the proletarian struggle be waged when the proletariat is disappearing? At the same time, while automation abolishes the working class, it still leaves the wider society in receipt of continually expanding wealth. And society, receiving these additional resources, acts according to Christian Engel's theorem to develop novel needs that use up these additional resources.³ As has been said earlier, this is what leads to an expansion of service sector employment. Society gets richer? New needs are accordingly imagined. These result in continually increasing services such as in hotels, tourism and psychiatry. Indeed, it should be noted that needs are truly insatiable. Provided there is money to spend, people will manage to generate additional needs such as masseurs, participative sports, psychotherapists and, of course, more leisure (a reduced working week so long as proportionate productivity is maintained), which, in turn, creates jobs such as fitness trainers, professional golfers and swimming instructors. This principle holds true at both the individual and societal level. As individuals get better off, so they come to need cleaners for their homes, to eat out regularly at restaurants, to have employed help for their child care, to have holidays away from home . . . And at the societal level, as wealth increases, so comes a need for schooling for all children, for all given ages, for smaller classes, for health treatment for the populace . . . Needs can never be satiated; so long as wealth increases people and politicians will create needs to absorb the bounty. Rich individuals, for instance, quickly need chauffeurs, personal trainers and even style advisors. Similarly, richer societies invest huge sums of money on pensions and care of the elderly, though life expectancies, and thereby social dependency, continue to expand. More than this, service employment has a distinctive trait that makes it especially difficult to automate. Since it is person oriented and often intangible (it is frequently a therapist, an advisor or counsellor), productivity increases courtesy of machines are not really feasible. How does one begin to automate a social worker, nurse or teacher?

In short, services will increase the more productivity/wealth is squeezed out of agriculture and industry, but there is not much fear that jobs in services will themselves be automated. Because of this, an evolutionary process that has held decisively throughout the pre-industrial and industrial epochs and propelled people out of agriculture and factories loses its force as we find ourselves in a mature PIS. With the coming of the post-industrial society we reach an end of history as regards job displacement due to technical innovations. As such, employment is secured.

The role of information

If one can accept that sustained increases in wealth result in service jobs predominating, one may still wonder where information comes into the equation. Why should Bell feel able to state boldly that '[t]he post-industrial society is an Information Society' (1973, p. 467) and that a 'service economy' indicates the arrival of post-industrialism? It is not difficult to understand information's place in the theorization. Bell explains with a number of connected observations. Crucially it involves the character of life in different epochs. In pre-industrial society life is 'a game against nature' where '[o]ne works with raw muscle power' (Bell, 1973, p. 126); in the industrial era, where the 'machine predominates' in a 'technical and rationalised' existence, life 'is a game against fabricated nature' (p. 126). In contrast to both, life in a 'post-industrial society [which] is based on services . . . is a game between persons' (p. 127). '[W]hat counts is not raw muscle power, or energy, but information' (p. 127).

In other words, where once one had struggled to eke a living from the land and had to rely on brawn and traditional ways of doing things (pre-industrialism), and where later one was tied to the exigencies of machine production (industrialism), with the emergence of a service/post-industrial society the material of work for the majority is information. After all, a 'game between persons' is necessarily one in which information is the basic resource. What do bankers do but handle money transactions? What do therapists do but conduct a dialogue with their clients? What do advertisers do but create and transmit images and symbols? What do teachers do but communicate knowledge? Service work *is* information work. Necessarily, then, the predominance of service employment leads to greater quantities of information. To restate this in Bell's later terminology, it is possible to distinguish three types of work, namely 'extractive', 'fabrication' and 'information activities' (Bell, 1979, p. 178), the balance of which has changed over the centuries such that in PIS the 'predominant group [of occupations] consists of information workers' (p. 183). More mundanely put: in advanced countries there are no longer jobs in coal-mining, ship-building, engineering, precious few in manufacturing and still fewer in farming. The openings are in services, from entertainment to health care.

Daniel Bell, however, goes further than this to depict PIS as an especially appealing place to live for several reasons. First of all, information work is mostly white-collar employment that, since it involves dealing with people rather than with things, brings the promise of greater job satisfaction than hitherto. Second, within the service sector professional jobs flourish, accounting, Bell claimed, for more than 30 per cent of the labour force by the late 1980s (Bell, 1989, p. 168). This means that the 'central person' in PIS 'is the professional, for he is equipped, by his education and training, to provide the kinds of skill which are increasingly demanded in the post-industrial society' (1973, p. 127). Third, '[t]he core of the post-industrial society is its professional technical services' (Bell, 1987, p. 33), the 'scientists and engineers, who form the key group in the post-industrial society' (Bell, 1973, p. 17). Fourth, it is a particular segment of services that 'is decisive for post-industrial society'. This is those professionals in health, education, research and government, where we are able to witness 'the expansion of a new intelligentsia – in the universities, research organisations, professions, and government' (p. 15).

More professional work, more roles for the intellectuals, more importance placed on qualifications, and more person-to-person employment. Not only does this provide an especially appealing prospect, but it also promotes the role of information/knowledge. I shall return to this, but should note here that Bell pushes even further the positive features of PIS. As far as he is concerned, the rise of professionals means not only that a great deal more information is in circulation than before consequent on their work generating greater quantities, but also that society undergoes decisive qualitative changes. One reason for this is that professionals, being knowledge experts, are disposed towards planning. As this disposition becomes a more dominant feature of the society, so it displaces the vicissitudes of *laissez-faire*. Because professionals will not be content to leave the future to the unpredictability of the free market, they will replace the hidden hand with forecasts, strategies and plans. PIS develops a more intentional and self-conscious developmental trajectory, thereby taking control of its destiny in ways previously unimaginable.⁴ A second qualitative change revolves around the fact that, since services are ‘games between people’ conducted by professionals, the quality of this relationship comes to the forefront. Scholars are not concerned with the profit and loss they stand to make on an individual student; what matters is the development of the young person’s knowledge, character and skills. The doctor does not regard the patient as *x* amount of income. Further, and logically following, this person-oriented society in which professionals’ knowledge is so telling evolves into a *caring* society. In ‘post-industrial’ society people are not to be treated as units (the fate of the industrial worker in an era when the concern was with machinery and money), but rather will benefit from the person-oriented services of professionals that are premised on the needs of the client. The imperative to plan alongside this impulse to care leads, says Bell, to a ‘new consciousness’ in PIS, which, as a ‘communal society’ (1973, p. 220), promotes the ‘community rather than the individual’ (p. 128) as the central reference point. Concerns like the environment, care of the elderly, the achievements of education, which must be more than vocational, all take precedence over mere matters of economic output and competitiveness – and, thanks to the professionals’ expertise and priorities, can be addressed. They represent a shift, attests Bell, from an ‘economising’ (maximization of return for self-interest) ethos towards a ‘sociologising’ mode of life (‘the effort to judge a society’s needs in more conscious fashion . . . on the basis of some explicit conception of the “public interest”’) (Bell, 1973, p. 283).

Readers may at this point be reminded of the request to reflect on the charge that the theory of ‘post-industrial’ society contains evolutionary assumptions. It is, I think, hard to avoid the conclusion that PIS is a superior form of society, one at a higher stage of development than its predecessors, and one towards which all societies capable of increasing productivity are moving.

Intellectual conservatism

What is clear in all of this is that increases in information work and a greater availability of professional occupations operating on the basis of knowledge-based credentials lead Daniel Bell to identify a distinctive *break* between industrial and

post-industrial societies. While it is incontestable that there is more information employment than hitherto, and that there is an obvious increase in information in use, there are major problems with Bell's argument that post-industrialism marks a system break with previous societies.

One difficulty is with the rather shaky foundations on which Bell constructs his theory of a new type of society. There is no inherent reason why increases in the number of professionals, even striking ones, should lead one to conclude that a new age is upon us. For instance, it seems reasonable to suppose that if, say, the pattern of industrial ownership remained the same and the dynamic which drove the economy stayed constant, the system – occupations apart – would remain intact. No one has suggested, for example, that a country such as Switzerland, because it is heavily reliant on banking and finance, is a fundamentally different society from, say, Norway or Spain, where occupations are differently spread. All are recognizably capitalist, whatever surface features they may exhibit.

To be sure, Bell and his sympathizers have two responses to this. The first revolves around the question: what degree of change does one need to conclude there has been a systemic break? The only honest answer to this is that it is a matter of judgement and reasoned argument – and I produce reasons to support my judgement of systemic continuity below. Second, it must be conceded that Bell, with his commitment to separate 'realm' analysis, could reply that changes along one axis represent a new social order even while on other, unconnected, dimensions there are continuities. *Ipso facto* his commitment to there being an identifiable 'post-industrial' society evidenced by occupational and informational developments could be sustained. I shall reply to these defences below in the section immediately following (pp. 53–7) by arguing that his anti-holism is untenable and that it is possible to demonstrate that there are identifiable continuities that have a systemic reach.

But before we proceed to these more substantial arguments, there is another reason to suspect the idea of a new 'post-industrial' era emerging. This may be explored by examining the reasons Bell offers by way of explanation of the transition from the old to the new regime. When we ask *why* these changes occur, Bell appeals to arguments that are remarkably familiar in social science. Such is this intellectual conservatism that we have grounds to be sceptical about the validity of his claim that a radically new system is emerging.

Let me clarify this. As we have seen, the reason for change, according to Bell, is that increases in productivity allow employees to shift from agriculture and industry to services. Productivity increases come from technological innovations that gave us more food from fewer farmers and more goods from factories with fewer workers. As Bell says: '[T]echnology . . . is the basis of increased productivity, and productivity has been the transforming fact of economic life' (1973, p. 191). It is this productivity that lays the basis for PIS since its beneficence pays for all those service occupations.

What is particularly noticeable about this is that it is a very familiar form of sociological reasoning and, being an expression of *technological determinism*, one which is deeply suspect in social science. It carries two especially dubious implications: (1) that technologies are the decisive agents of social change; (2) that technologies are themselves aloof from the social world, though they have enormous social effects. Where, critics ask, are people, capital, politics, classes, interests in this

(Webster and Robins, 1986, ch. 2)? Can it be seriously suggested that technologies are at once the motor of change and simultaneously untouched by social relations? Whatever happened to the values and powers that determine R&D budgets? To corporate priorities in investing in innovation? To government preferences for *this* project rather than for *that* one? Technologies are undoubtedly important in making social changes, but they do not spring out of the ether. They are nurtured in complex social and economic circumstances, and the latter necessarily have consequences for their genesis. For example, computer tomography and the scanners that undertake this imagining are routinely used in medical diagnosis. They were developed by an entertainment corporation, EMI, in the 1960s when money was flush from the success of the Beatles' music. However, EMI divested itself of scanners a few years later because they did not fit with its commercial strategy.

More important than details of the objection to technological determinism here is the need to fully appreciate the more general character of Bell's intellectual conservatism. Presenting this old proposition, that technology is the driving force of change (traceable through a lineage at least to Henri Saint-Simon and Auguste Comte, writing during the early stages of *industrialization*), is heavily criticized in virtually every sociology primer. Its deep-rootedness in the history of social thought really must lead one to query Bell's assertion of the novelty of 'post-industrialism'.

Moreover, another source of his views reinforces this suspicion. This is found in his indebtedness to Max Weber – a major founder of classical sociology who wrote in the late nineteenth and early twentieth centuries of the *industrial* changes taking place around him – and in particular his interpretation of Weber as the major thinker on 'rationalization'. Bell tells us that Weber thought 'the master key of Western society was rationalisation' (Bell, 1973, p. 67), which, in Bell's terms, means the growth of an ethos of 'more for less' or, more prosaically, 'the spread through law of a spirit of functional efficiency and measurement, of an "economising" attitude (maximisation, optimisation, least cost) towards not only material resources but all life' (p. 67). Put otherwise, the increase in productivity, indeed of the application of new technologies themselves, is at root all a matter of 'rationalisation'. To Bell 'the axial principle of the social structure is *economising* – a way of allocating resources according to principles of least cost, substitutability, optimisation, maximisation, and the like' (p. 12, original emphasis).

Again, what we see here is Bell offering a remarkably familiar – and vigorously contested – account of change (cf. Janowitz, 1974). And it is one that lies further behind his argument that productivity comes from technological innovation. Bell explicitly refuses the charge of technological determinism. But he can claim this only because there is a cause of change still more foundational and determining – rationalization, the hidden dynamic of 'more for less' that drives technology itself (and is usually manifested in technological innovation). As Bell's foremost critic, Krishan Kumar, appositely observes:

Almost every feature of Bell's post-industrial society can be seen as an extension and a distillation of Weber's account of the relentless process of 'rationalisation' in western industrial societies.

(Kumar, 1978, p. 235)

It might be objected that it is possible to be intellectually conservative while still satisfactorily explaining radical social change to a new type of society. And this may be so, but not, I think, in Bell's scenario. This is because, in his derivation from Weber, what we are alerted to in his writing is a restatement of arguments which *themselves emphasize not breaks with the past, but rather continuities.*

Bell's dependence on themes central to nineteenth- and early twentieth-century social scientists whose concern was to explore the emergence and direction of *industrialism* undermines his case for PIS being novel. After all, it is odd, to say the least, to borrow arguments from classical social theorists that were developed to understand the development of industrialism, only to assert that they actually account for the emergence of a new, post-industrial society. Krishan Kumar again comments tellingly:

post-industrial theorists do not seem to realise the significance of acknowledging their intellectual mentors. They do not apparently see that to be drawing so heavily and so centrally on the classic analyses of industrialism makes it highly implausible that they can be describing the transition to a new order of society. In what can the novelty of that order consist, if the society continues to be dominated by the persistence of the central and, so to speak, defining process of classic industrialism?

(Kumar, 1978, p. 237)

The emphasis on the role of 'rationalisation' leads Bell down a number of well-trodden paths, each of which carries warning signs from fellow social scientists. Prominent among these is that, from his argument that all industrial societies 'are organised around a principle of functional efficiency whose desideratum is to get "more for less" and to choose the more "rational" course of action' (Bell, 1973, pp. 75–6), he is inevitably endorsing a *convergence theory* of development which ignores, or at least makes subordinate to this 'rationalisation', differences of politics, culture and history (Kleinberg, 1973). Insisting that there are 'common characteristics for all industrial societies: the technology is everywhere the same; the same kind of technical and engineering knowledge (and the schooling to provide these) is the same; classification of jobs and skills is roughly the same' (Bell, 1973, p. 75), Bell necessarily contends that all societies are set on the same developmental journey, one which *must* be followed en route to PIS.

Another, related, difficulty with this is the problem Bell has in reconciling his view that the productivity gains from the social structure (the 'economising' mode of industrial societies) must be sustained to enable continued expansion of the service sector, which in turn generates a 'sociologising' or community consciousness. Since he tells us that the latter will become a defining feature of PIS, and with this an outlook sceptical of mere economic output, while simultaneously the economy must expand to support PIS, we are left with a puzzle: are we still mired in 'industrial society', even with multitudes of service workers, where the bottom line is still 'more for less', or have we really moved beyond the ethos? In answer one must note that we can scarcely be talking about a post-industrial society when the continued existence and development of an automated and productive industrial system are requisites of all the post-industrial changes Bell envisages.

Post-industrial service society?

I am suspicious of a theory of post-industrialism that is so derivative of sociology that was developed to conceive the major features of industrialism. I have also expressed scepticism about PIS on grounds that there is no necessary reason why more professional occupations – and all the informational activity that goes with them – should represent a radically new society. However, there seem to me still more decisive reasons for rejecting Bell's depiction of 'post-industrial society'.

These can be understood on closer analysis of what Bell takes to be the major sign of PIS's emergence, the growth of services. In what follows I shall demonstrate the *continuities* with established relations that the expansion of services represents, quite in contrast with Bell's postulate that it indicates a *break* with the past. As I do this, by reviewing what may be termed the *Gershuny and Miles critique*, after its most authoritative formulators, we shall see again that the concept of 'post-industrial society' is unsustainable.

To recapitulate: Bell cites the undeniable fact that the service sector of the economy has expanded while industrial and agricultural sectors have declined as prima facie evidence of the coming of 'post-industrialism'. Logically, it seems clear that, with services continuing to grow, and within services professional occupations expanding especially fast, provided sufficient wealth can be generated from productivity increases in agriculture and industry due to efficiency increases, ultimately almost everyone will find employment in services. So long as wealth is forthcoming from the other two sectors, there is, in principle at least, no end to service expansion since people will constantly dream of ways of spending their wealth (which stimulates service employment), while the service occupations that are created, being people oriented, are insulated from automation. This is certainly the conclusion Bell draws from his historical review: he cites figures which show that in 1947 over half the United States' workforce was in the 'goods-producing' sectors and 49 per cent in the service sector; by 1980 this was projected to change to 32 per cent and 68 per cent respectively (Bell, 1973, p. 132). This trajectory has been verified by the course of events, with every data set subsequently produced demonstrating an expansion of the service sector as a percentage of total employment, with services generally in excess of 70 per cent of the total labour force. Hence it does seem plausible for Bell to perceive a new society, 'post-industrialism', being erected on the basis of its predecessors.

It is important that we understand the reasoning being applied here. Bell is dividing employment into three separate sectors – primary, secondary, tertiary (broadly, agriculture, manufacture, services) – but he is also decisively linking them in the following way. He is arguing that services are *dependent* on the outputs from the other two sectors in so far as services consume resources while agriculture and manufacturing generate them. Put in more vulgar terms, he is assuming that the wealth-creating sectors of society must subsidize the wealth-consuming realms. This is, of course, a very familiar nostrum: for example, schools and hospitals must spend only what 'we can afford' from the wealth created by industry.

A key point to be grasped is that Bell is not simply taking the classification of employment into different sectors as indicative of the rise of a post-industrial society.

He is also operating with a theory of causation, which underpins the statistical categories. This is frequently unstated, but it is ever present, and it is the assumption that increased productivity in the primary and secondary sectors is 'the motor that drives the transformative process' (Browning and Singelmann, 1978, p. 485) towards a service-dominated 'post-industrial' era. Unfortunately for Bell, this presumption is false.

The first, and, I think, lesser, problem is that Bell's 'stages' view of development – from pre-industrial, to industrial, finally reaching post-industrialism as wealth expands sufficiently to allow, initially, a majority in manufacturing, with later most moving to service sector employment – is historically cavalier. Just as the 'over-tertiarization' of Third World countries, now regarded as a sign of maladjustment, suggests there is no historical necessity that an industrial base be founded for services, so too – and here more tellingly against Bell – there is little evidence to support the notion that advanced societies have progressed from a situation of majority employment in industrial production to one in services. The most spectacular change has not been one of transfer from factory to service employment, but *from agriculture to services*. Moreover, even in Britain, historically the most industrialized of countries, the proportion of the labour force occupied in manufacture was remarkably stable at 45–50 per cent between 1840 and 1980, and it was the collapse of manufacturing industry due to recession and government policies during the 1980s, combined with the feminization of the workforce, which dramatically reduced this proportion to less than one-third.

All this is to say that talk of evolutionary shifts from one sector to the next is at the least dubious. Other than in England, nowhere has a majority of the population at any time worked in industry, and even in England it is hard to sustain the argument that employment has shifted in any sequential way. To be sure, the theory of post-industrial society could account for the more common practice of employment transfer from agriculture directly to services by positing a 'leapfrog' explanation. That is, such is the rapidity of automation that a society may jump from pre-industrialism to post-industrialism in the course of a generation or so because productivity advances in both agriculture and industry are unbounded. In this case, while one may retain doubts about Bell's theme of 'from goods to services', it is possible to hang on to the idea that expanded services emanate from the bounty of productivity growth in the other two sectors.

It is the second criticism of Bell's conviction that wealth must be created in agriculture and industry as a prerequisite of service expansion that is most telling. A starting point for this attack is the observation that 'services' is a residual category of statisticians interested in examining employment by economic sectors, something which accounts for anything not classifiable in the primary or secondary sectors and which has been described as 'a rag-bag of industries as different as real-estate and massage parlours, transport and computer bureaux, public administration and public entertainment' (Jones, 1980, p. 147). The point in stressing the generality and leftover constitution of service industries is that the classificatory convenience that separates the tertiary sector from others is grossly misleading. It is the *social construction* of the category 'services' as industries apart from – yet dependent upon – the fruits of manufacture and agriculture which misleads and

allows Bell to suggest, with superficial force, that services will expand on the basis of increased productivity in the primary and secondary sectors. However, it is only at a conceptual level that the service sector can be regarded as distinct from yet dependent on other areas of society.

This becomes clear when, following Jonathan Gershuny and Ian Miles, we explore further the meaning of services. Paradoxically, Daniel Bell's theory of post-industrial society nowhere directly defines what a service is. Throughout Bell's writing the service sector is contrasted with the industrial, and we are told that PIS arrives with a switch 'from goods to services', but what a service actually is is not made clear. However,

it becomes obvious by contrast with the nature of goods: goods are material, permanent, made by people using machines, which are sold or otherwise distributed to people who thereafter may use them at will. Services, we infer by contrast, are immaterial, impermanent, made by people for people.

(Gershuny, 1978, p. 56)

Bell's entire theory of PIS as a distinctly different stage of development requires that service work be perceived as the *opposite* of goods production, because it is the supply of services (perceived as 'games between people', informational and intangible) which distinguishes PIS from 'industrial' society, where most workers were employed in the fabrication of things. It is Bell's thesis that a society moves out of industrialism when it has sufficient wealth to lay out on immaterial services, which in turn generate service occupations that account for the majority of employment and that do not produce goods, but rather consume resources created elsewhere.

The premise of this model of society and social change is challenged when one examines the substance of service work (i.e. services in terms of occupations rather than sectoral categorizations) and the real relations between the tertiary and other industrial sectors.

It is apparent upon closer examination that service occupations, defined as those the outputs of which are non-material or ephemeral (Gershuny and Miles, 1983, p. 47), are not limited to the service sector. An accountant working in a bank or in an electronics factory can be categorized as belonging either to the service or manufacturing sector, though the work done may scarcely differ. Similarly, a carpenter working in a college of education or on a building site can be in either category. What this implies is that industrial classifications do not fully illuminate the type of work performed, and that many producers of goods can be found in the service sector, while many non-producers are in the primary and secondary sectors. In fact, Gershuny and Miles calculate that as much as half the growth in service occupations is a result of 'intra-sector tertiarisation' rather than inter-sector shifts (1983, p. 125).

For example, when a manufacturer expands white-collar staff, perhaps in marketing, training or personnel, the firm is taking on service workers to better allow the company to stay in business more effectively, by, for instance, improving sales methods, teaching workers to be more efficient or more carefully selecting employees. These are each expressions of an increased *division of labour* within a

particular sector which boosts the number of service occupations. Most importantly, however, such examples must lead us to reject Bell's presentation of the service sector as some sort of parasite on the industrial base. If we can recognize similar occupations across the sectors (managers of all sorts, clerks, lawyers, etc.), we surely cannot assert that in one sector some of these occupations are productive while in another all they do is consume the resources generated from the other. One has, rather, to cast doubt on the value of a sectoral division which suggests one is wholly productive while the other is concerned only with consumption.

This does bring into question the use of regarding society in terms of separate sectoral levels, but the definitive rejection of such a way of seeing comes when one looks more closely at the service sector itself. What one sees there is that a good deal of service sector work is engaged, not in consuming the wealth created by industry, but in assisting its generation. Gershuny, in contending that 'the growth of the service sector of employment . . . is largely a manifestation of the process of the division of labour' (Gershuny, 1978, p. 92), leads one to realize the 'systematic link between the secondary and tertiary sectors' (Kumar, 1978, p. 204) and the consequent absurdity of sharply distinguishing realms in the manner of Bell.

Browning and Singelmann, for instance, identify 'producer services' such as banking and insurance that are largely a 'reflection of the increasing division of labour' (Browning and Singelmann, 1978, p. 30). It is only by donning a pair of theoretical blinkers that one can perceive services as distinctly apart from production activities. The following observation from Gershuny is subversive of all theorizations that foresee services springing from the 'productivity' of the 'goods producing sector':

the important thing to note about tertiary industry is that though it does not directly produce material goods, a large proportion of it is closely connected with the process of production in the slightly wider sense. The distribution industry, for instance, does not itself make any material object, and yet is an integral part of the process of making things – if products cannot be sold they will not be produced. Similarly, the major part of finance and insurance is taken up with facilitating the production or purchase of goods . . . though, in 1971, nearly half of the working population were employed in tertiary industry, less than a quarter of it – 23.1% – was involved in providing for the final consumption of services.

(Gershuny, 1977, pp. 109–10)

Even education, something which appears at first sight to be an archetypical Bellian service as a non-producer which consumes resources, owes much of its rapid growth to the wider society's need to systematize the training of its workforce, to engage in research activities to ensure improvements in productivity and effective supply of managers, to produce adequate supplies of engineers and linguists for corporations.

The bald point is that the division of society into wealth-creating and wealth-consuming sectors or, more explicitly with Bell's theory of 'post-industrialism', into goods-producing and service sectors, is a 'heroic oversimplification' (Perkin, 1989,

p. 501). It feeds commonsense prejudices to think in these ways, but, as historian Harold Perkin bitinglly observes with reference to a closely cognate opposition:

The notion expressed by so many corporate executives, that the private sector produces the wealth which the public sector squanders, is manifestly false. It is just as valid to claim that the public sector produces and maintains, through the education and health services, most of the skills on which the private sector depends. In a complex interdependent society such claims and counter-claims are as naive and unhelpful as the pot calling the kettle black.

(Perkin, 1989, p. 502)

Services and manufacture

So the notion that services are readily separable from other work activities, let alone employment sectors, is false. It is possible to extend the critique by further drawing on the work of Gershuny and Miles. In a number of propositions developed in their book *The New Service Economy* (1983), Gershuny and Miles turn on its head Engel's theorem as they remind us of the *ex post facto* logic Daniel Bell draws upon to explain the growth of service sector employment.

To reiterate: Bell, starting from the indisputable fact that there is more service employment about nowadays, looks back from this to deduce its expansion from Engel's rule that, as one gets wealthier, so one's additional income is spent on services. People must be spending more on services, argues Bell, since there are so many more service employees around now. Initially this does appear plausible. However, it is mistaken, and it is a mistake which stems from Bell's failure to look at what *service workers actually do*. As we have seen already, a great deal of service work can be accounted for by differentiation in the division of labour aimed at making more effective the production of goods.

Another major problem with Bell's account is his failure to consider that people might satisfy their service requirements by investing in goods rather than in employing service workers to do it for them. Gershuny and Miles come to this proposition by reversing Engel's theorem, wondering whether the case has not been that, rather than increased riches leading to extra expenditure on personal services to satisfy needs, a relative increase in the cost of service workers, along with cheapened service products becoming available, might have led to the satisfaction of service requirements through the purchase of goods rather than the employment of people. Put more directly: people want services as their standard of living increases (Engel's theorem conceded), but they are not prepared to pay the price of people doing the services for them when there are service products available on the market that they can buy and use to do the service for themselves – for example, people want a convenient way of cleaning their homes, but because they are not prepared to pay wages to a cleaner, they get a vacuum cleaner to do it for themselves; or they would like their home decorated regularly, but because they will not pay for commercial painters, they invest in the do-it-yourself (DIY) equipment and get on with it themselves.

Gershuny and Miles agree that Engel's theorem still holds, and people do indeed want services, but the cost of having that service performed by another person becomes unattractive when set against the price of buying a machine to do it. In turn, this consumer demand for services in the form of goods 'can . . . produce pressure for innovation in service provision' (Gershuny and Miles, 1983, p. 42), which means that service requirements *impact on manufacture itself*. Instances such as the automobile industry and consumer electronics are pointers to the trend of fulfilment of service needs by goods rather than through employment of service workers. Gershuny (1978) himself claims, with impressive empirical documentation, that the spread of service products signifies the growth of a 'self-service economy' – almost the antithesis of Bell's 'post-industrial service society' – which is likely to continue to intrude into both service sector and service occupation employment. As he puts it:

careful examination of changes in employment and consumption patterns . . . reveals, not the gradual emergence of a 'service economy', but its precise opposite. Where we would expect, according to . . . [Bell's] dogma, to find a considerable rise in the consumption of services, we find instead a remarkable fall in service consumption as a proportion of the total. Instead of buying services, households seem increasingly to be buying – in effect investing in – durable goods which allow final consumers to produce services for themselves.
(Gershuny 1978, p. 8)

Furthermore, these service products 'form a fundamentally important source of change in the overall industrial structure' (Gershuny and Miles, 1983, p. 121). The 'industrialisation of service production' (p. 84) is a pointer to what others whom we shall encounter in this book have called 'consumer capitalism', where the production and consumption of goods and services are to be regarded as intimately connected. And they underscore a recurrent criticism of Daniel Bell's theoretical and methodological presuppositions, that to conceive of society as divisible into distinctly separate realms is profoundly misleading. The historical record shows that 'the economies of the Western world during the 1950s and the 1960s were dominated by the consequences of social and technological innovations in the nature of provision for a particular range of service functions, namely transport, domestic services, entertainment' (p. 121). In other words, far from the 'industrial' sector of the post-war societies determining the amount of wealth (or 'goods') available to pay for more service workers, *the major activity of industry was the manufacture of service products, in response to clear demand from consumers, that could substitute for service employees*. Bell's theorization cannot begin to account for this since an adequate explanation must jettison insistence on separate realms of society from the outset.

Gershuny's critique must mean that we reject Bell's notion of post-industrial society. And this rejection must be quite sweeping, dismissing everything from Bell's anti-holistic mantra (societies are not radically disjuncted, but rather intricately connected) to his general account of social change as an evolution through stages towards a 'service economy'. His explanation for the emergence of PIS is

misconceived, his description of an emergent 'caring' society unconvincing, and his insistence that it is possible to identify separate employment sectors (which are yet causally connected, with services being dependent on the goods-producing level) is incorrect.

One is forced to take the view that more service sector employment, more white-collar work, and even more professional occupations – all of which Bell correctly highlights – do not announce a 'post-industrial' epoch. On the contrary, these trends are each explicable as aspects of the continuity of an established, and interdependent, socio-economic system. Furthermore, while these shifts and changes do lead to increases in information and information activities, it is an error to move from this to assert that a 'post-industrial Information Society' has emerged.

I would add a coda to this final remark. It can be conceded readily enough that there is a good deal more information work going on in contemporary societies than hitherto. This, after all, is a starting point of this book. As we have seen, Bell puts the growth of information employment down to increases in person-to-person occupations founded in an expanding service sector. However, it has not been a difficult task to demonstrate that, *contra* Bell, the real economy is an *integrated* one, and that, rather than the service sector consuming resources from the goods-producing sector, many service occupations have expanded to aid its operation. This being so, it raises the question of the significance of information and information work in the present circumstances.

It has been suggested that here, in general commercial affairs, we can see a heightened importance given to informational activities. Some commentators suggest that the economy – wider than simply agriculture and manufacture, incorporating all (and arguably more) enterprise which contributes to GNP (gross national product) – has nowadays an especially acute need for information, one which is more urgent and pressing than those occupied in the consumer services of which Bell makes so much. In other words, *producer services* (informational work such as banking, advertising, R&D, online data services, computer software supply and management consultancy) are indeed axial to present levels of economic activity. It may be that they have promoted an increased centrality of information in recent decades. Political economist Bill Melody thinks so. He writes that

Most information goods and services are used by industry rather than consumers . . . We need to . . . recognise that information . . . is fundamental to almost all productive activity, in a modern economy. The changing role of information lies behind the restructuring of all industries and the creation of the global information economy.

(Melody, 1991, p. 2)

As this book develops, we shall meet other thinkers who, while rejecting the 'post-industrial service society' scenario, do agree that information and information activities moved to take a strategically more important part in economic, social and indeed political affairs in the late twentieth century.

Theoretical knowledge

The foundations of Bell's 'post-industrial' model are insecure. As such, it is apparent that his equation of 'post-industrial' and 'information' societies is untenable: since his argument that professional, white-collar and service work represents PIS is miscued, so must collapse his assertion that 'post-industrialism' is an adequate account of the information age. Above all, perhaps, there are no signs of a *break* with former societies appearing – indeed quite the reverse. As Krishan Kumar observes, 'the trends singled out by the post-industrial theorists are extrapolations, intensifications, and clarifications of tendencies which were apparent from the very birth of industrialism' (Kumar, 1978, p. 232). This being so, we must refuse the idea of post-industrialism as a way of understanding the present concern with information. This does leave us with the undeniable fact that there is a good deal more information work taking place in advanced societies, though it is insufficient to assert that this, in and of itself, engenders a new sort of society. Just as one cannot assert that more service occupations prove there is emerging a new sort of society, so it is not enough to contend that *more* information of itself represents a new society.

However, if we cannot accept that more information can of itself create a new sort of society in the way Bell envisages, there are other elements of his views on information that deserve attention. Describing post-industrial society, Bell sees not only an expansion in information as a result of more service sector employees. There is another, more qualitatively distinct, feature of information in PIS. This is Bell's identification of what he calls 'theoretical knowledge'. Now, while an expansion of professionals will certainly increase the number of people using and contributing to 'theoretical knowledge', we are not considering here a mere quantitative – and hence relatively easily measured (numbers of lawyers, scientists and so forth) – phenomenon. It is, rather, a feature of PIS which distinctively marks it off from all other regimes and which has profound consequences. It is not even altogether clear how it fits with much of Bell's other descriptions of PIS (occupational changes, sectoral shifts and the like), since 'theoretical knowledge's' centrality to PIS does not, in principle at least, require major changes in jobs or, indeed, the nature of work.

It does, however, have enormously significant effects on all aspects of life. Bell's argument is that 'what is radically new today is the codification of theoretical knowledge and its centrality for innovation, both of new knowledge and for economic goods and services' (Bell, 1989, p. 169). This feature allows Bell to depict

[t]he post-industrial society [as] a knowledge society [because] the sources of innovation are increasingly derivative from research and development (and more directly, there is a new relation between science and technology because of the centrality of *theoretical* [*sic*] knowledge).

(Bell, 1973, p. 212)

The constituents of 'theoretical knowledge' can be better understood by contrasting PIS with 'industrial' society. In the past innovations were made, on the whole,

by 'talented amateurs' who, encountering a practical problem, worked in an empirical and trial-and-error way towards a solution. One thinks, for example, of George Stephenson developing the railway engine: he was faced by the practical difficulty of transporting coal from easily accessible collieries situated a distance from rivers and in response he invented the train, which ran on tracks and was powered by steam. Stephenson accomplished this without benefit of advanced-level education and knowledge of scientific principles of steam power or traction. Or, again, we have James Watt's steam engine, developed from his attempts to improve the functioning of Thomas Newcomen's earlier model. And in the early twentieth century we have Henry Ford, a talented tinkerer who pioneered the automobile without benefit of formal schooling in engineering, but with an insatiable curiosity and an enviably practical dexterity.

In contrast, PIS is characterized by 'the primacy of theory over empiricism and the codification of knowledge into abstract systems of symbols that . . . can be used to illuminate many different and varied areas of experience' (Bell, 1973, p. 20). This means that innovation nowadays is premised on known theoretical principles; for example, computer science takes off from Alan Turing's seminal paper 'On Computable Numbers', which set out principles of binary mathematics, and the extraordinary miniaturization of integrated circuits that has allowed the 'micro-electronics revolution' was founded on known principles of physics. Again, the potentially awesome consequences of genetic engineering stem from the identification and codification of humankind's genetic make-up, an ambition that drives the Human Genome Project. As Bell puts it, production in PIS is 'primarily dependent on theoretical work prior to production' (Bell, 1973, p. 25).

The proposal is that nowadays theory is pre-eminent not just in the area of technological innovation, but even in social and economic affairs. For example, governments introduce policies that are premised on theoretical models of the economy. These may be variable – Keynesian, monetarist, supply side and so forth – but they are, nonetheless, each theoretical frameworks which underpin any day-to-day decisions ministers may make in response to exigencies. Elsewhere, one may instance the primacy of theory in social affairs, for example in the creation of educational and medical provision, where experts make their decisions on the basis of theoretical models of the operation of family structures, lifestyle variations and demographic trends. Recent debates, as well as formulation of policies in the UK and beyond, on provision of pensions into the mid-twenty-first century, revolve around projections and models of age structures, longevity, morbidity, employment and migratory patterns.

It is salutary to reflect here on contemporary policies oriented towards resolving environmental problems. It quickly becomes evident that these are not merely responses to particularly pressing problems (an oil spillage at sea, desertification). They do involve such contingencies, of course, but they are also proposals developed on the basis of theoretical models of the ecosystem's sustainability. Thus, for instance, environmental debates are routinely informed by theoretical projections on matters such as population growth, fish stocks and the condition of the ozone layer. Practical policies are imaginable only on the basis of these sorts of theoretical models, as in, for example, appropriate reactions to a noticeably dry or warmer

summer in the UK, things comprehensible only in a context of theoretical models of the long-term likelihood of and consequences of global warming. To be sure, such models, even if complex, are at present inchoate, but they and other instances help us to appreciate that, while theoretical knowledge does not have to be 'true' in any absolute sense, it does play a decisive part in our lives. The theoretical knowledge used here is often imprecise, but this does not undermine the point that it is a prerequisite of action. Where once actions were responsive to practical issues (a technical problem, a social obstacle), nowadays much of life is organized on the basis of theories – of abstract, generalizable principles – of behaviour.

Bell thinks this change has important consequences. Perhaps most important, the primacy of theory in all spheres gives PIS a capacity to plan and hence to control futures to a much greater degree than previous societies. This capability of course accords with the professionals' predisposition to organize and arrange life. In addition, theories are made more versatile thanks to the advent of information technologies. Computerization allows not just the management of 'organized complexity', but also, through programming, the creation of 'intellectual technology' (Bell, 1973, p. 29) that incorporates knowledge (rules, procedures and the like) and in turn facilitates innovations based on theoretical knowledge. For instance, MRI (magnetic resonance imaging) scanners are a key tool of medical diagnostics. They were developed on the basis of known principles of the physics of magnetization and of the atomic nuclei of the human body. Sir Peter Mansfield, a Professor of Physics, was awarded the Nobel Prize for developing the mathematics that made MRI scanners practically useful for radiologists. Mansfield's mathematical formulae are integrated into the scanner, which takes several thousand images in each individual case, so the radiologist, whose expertise is diagnosis of bodily maladies and malformations, has no need to be trained in maths or physics. His or her theoretical knowledge is in the domain of medicine; the MRI scanner incorporates the 'intellectual technology' of other sciences so the radiologist may get on with his or her own job.

Theoretical knowledge is undeniably an arresting idea, one that does, *prima facie*, define a new type of society that hinges on the generation and use of information/knowledge. If theory is at the point of initiation of developments, in contrast to one-time practical demands, then such knowledge could be said to herald a new sort of society. Moreover, we are not talking here merely of more white-collar workers or more bits of information being produced, but of a new foundational principle of social life.

Nonetheless, a difficulty with this notion is defining precisely what is meant by theoretical knowledge (Kumar, 1978, pp. 219–30). Theory evokes abstract and generalizable rules, laws and procedures, and, with this, there can be agreement that advances, especially in scientific knowledge, have resulted in their codification in texts which may be learned by would-be practitioners and which in turn become integrated into their practical work. This principle can reasonably be thought to be at the heart of research and development projects at the forefront of innovations, but it is clearly in evidence too in a large range of professions such as architecture, engineering, construction, food handling and even the design of much clothing.

However, there are those who would extend the notion of theoretical knowledge to encompass a much vaster range, all of which could be cited as evidence of a knowledge-based society. Here, for example, one might include the training of many white-collar employees in law, social services, accountancy, etc. as evidence of the primacy of knowledge in the contemporary world. Indeed, one might argue that the whole of higher education is concerned largely with transmitting theoretical knowledge. After all, it is a common refrain, in Britain at least, that the rapid transition to mass higher education (with over 30 per cent of the age group now attending universities) has been required by the need to equip appropriately large numbers of people to operate successfully in the 'knowledge society'. Such knowledge as is transmitted is undoubtedly codified and generally abstracted from practical applications, and it is even generalizable, though it is surely of a different order of magnitude to the theoretical knowledge expounded in sciences such as chemistry and physics.

Nico Stehr (1994), proposing that we now inhabit a 'knowledge society', does extend the definition of theory in such a way, arguing that nowadays knowledge has come to be constitutive of the way that we live. Recourse to theoretical knowledge is now central to virtually everything that we do, from designing new technologies, producing everyday artefacts, to making sense of our own lives when we draw upon large repositories of knowledge to help us better understand our own location.

Here we are extending the idea of theoretical knowledge a great deal, but it is helpful in so far as Stehr (2001) echoes themes in the work of social theorist Anthony Giddens that merit comment (I discuss Giddens further in Chapter 11 of this book). Stehr proposes a threefold typology of the development of knowledge, from *meaningful* (the Enlightenment ideal of knowledge for better understanding), through *productive* (knowledge applied to industry), to *action* (where knowledge is intimately connected to production, with, for example, the inclusion of intelligent devices, and where it influences the performance of one's everyday activities). This latter form of knowledge appears close to Giddens's emphasis on what he refers to as the *intensified reflexivity* of 'late modern' existence. What Giddens highlights here is that, and increasingly, modernity has been a story of people's release from the strictures of nature and restrictive forms of community, where it appeared that one had to do what one did as it was a matter of 'fate', towards individuals and groups making choices about their own and collective destinies in circumstances of 'manufactured uncertainty'. That is, the world increasingly is not bounded by fixed and unchangeable limits, but is rather recognized as malleable and the outcome of human decisions. A requisite of this is heightened self- and collective interrogation, otherwise reflexivity, though this is not to be perceived as some trend towards self-absorption. Quite the contrary, it is premised on openness to ideas, information and theories from very diverse realms, which are examined and incorporated as circumstances and people so decide.

A key point here is that a 'post-traditional' (Giddens, 1994) society that is characterized by intensified reflexivity of actors and institutions hinges on information/knowledge. Of course, some of this is local and particular (one's biography reflected upon, a company carefully scrutinizing its sales and stock records),

but a great deal is also abstract, emanating especially from electronic media and from other, notably educational, institutions. If one accepts Giddens's argument that we do inhabit a world of 'high modernity' in which reflexivity is much more pronounced than hitherto, it is feasible to conceive of this as heightening the import of information and knowledge in contemporary life. A world of choices, for both organizations and individuals, is reliant on the availability and generation of detailed and rich information. If one accepts Giddens's contention that ours is an era of intensified reflexivity on the basis of which we forge our material as well as social conditions, it follows that this will sustain and will demand a complex and deep information environment. It is perhaps not quite the same sort of theoretical knowledge as that which Daniel Bell has proposed, but in so far as it is abstract and codified it could find inclusion in a suitably widened category.

Nevertheless, there are reasons why we should hesitate to depict any novel Information Society in these terms. Not least is that Anthony Giddens himself is reluctant to do so. While he does emphasize that a 'world of intensified reflexivity is a world of *clever people*' (Giddens, 1994, p. 7), he appears unwilling to present this as other than an extension of long-term trends. Life today is certainly more information intensive, but this is not sufficient to justify projections that it represents a new sort of society.

In addition, Giddens has also raised doubts about the novelty of theoretical knowledge. In 1981 he observed that 'there is nothing which is specifically new in the application of "theoretical knowledge" . . . Indeed . . . rationality of technique . . . is the primary factor which from the beginning has distinguished industrialism from all preceding forms of social order' (1981, p. 262). This being so, we return to the problem of designating as novel today's society in which theoretical knowledge is prevalent.

Giddens's objection also begs the key question: just what do commentators mean by theoretical knowledge? It is clear, from the quotation above, that Giddens feels that the classical sociologist Max Weber's conception of formal rationality which underpins purposive (goal-directed) action (most famously manifested in the growth of bureaucratic structures) might apply on one definition. After all, it involves abstract and codifiable principles, rules and regulations (the entire bureaucratic machine), as well as requiring from participants command of abstract knowledge (how the system works). Theoretical knowledge, in these terms, is not much more than learning the rules and procedures of how bureaucracies function. If so, one is forced also to ask what is especially new about this. This being so, PIS's emphasis on knowledge is essentially an extension and acceleration of industrialism's priorities and we are back to rehearsing doubts about the novelty of PIS.

This leads us to the wider complaint about the imprecision of the term theoretical knowledge. If, for instance, the 'primacy of theoretical knowledge' is taken to refer to known scientific principles (the boiling point of water, the conductivity of elements, etc.) which are codified in texts, this is one matter. However, if theoretical knowledge is taken to include hypothetical models such as the relation between inflation and unemployment, poverty and life chances, or social class and educational opportunity, this surely is another. It may be that such theoretical knowledge is distinguishable from laws of physics only by degree, but this remains

an important difference nonetheless. If theoretical knowledge is perceived as the prominence in modern life of the expert systems that operate services such as water and sewage systems, air traffic control and the telephone networks, on the basis of systematic monitoring of activities which are ongoingly (re)organized on the basis of established principles (of toxicity, safety of margins and so forth), this too is another thing. Alternatively, if theoretical knowledge is to be understood as a trend towards very much more intensified reflexivity among individuals as well as institutions, on the basis of which they then shape their future courses of action, this is another thing again. Finally, if the rise of theoretical knowledge is to be chartered by the spread of educational certification – a common strategy – this is to introduce still another significantly different definition. Such imprecisions lead one to be suspicious of theoretical knowledge as a criterion for distinguishing an Information Society, albeit that a shift towards the primacy of theory does appear to be a marked feature of recent history. It is a subject well worthy of further exploration.

Conclusion

Daniel Bell began some years ago to substitute the concept ‘Information Society’ for ‘post-industrialism’. But in doing so he did not significantly change his terms of analysis: to all intents and purposes, his ‘Information Society’ is the same as his ‘post-industrialism’. However, we have seen in this chapter that his analysis cannot be sustained.

Undeniably, information and knowledge – and all the technological systems that accompany the ‘information explosion’ – have quantitatively expanded. It can also be readily admitted that these have become central to the day-to-day conduct of life in contemporary societies. Nonetheless, what cannot be seen is any convincing evidence or argument for the view that all this signals a new type of society, ‘post-industrialism’, which distinguishes the present sharply from the past. To the extent that this criticism is valid, all talk of developments in the informational domain representing the coming of ‘post-industrial society’ must be refused.

It has been demonstrated that Daniel Bell’s division of society into separate realms, and his further division of the economy into distinct employment sectors – a principle that is essential to support the entire structure of his post-industrial model – collapses on closer examination. Services, white-collar work, even professional occupations have all grown, and they have all manifested greater concern with handling, storing and processing information, but, as we saw, there is no reason here for interpreting their expansion as consequent upon more wealth flowing from a ‘goods-producing’ sector to a separate realm of consumption. On the contrary, services have expanded to perpetuate and secure an established, interconnected, economy (and, indeed, wider political and cultural relations). *There is no novel, ‘post-industrial’ society: the growth of service occupations and associated developments highlight the continuities of the present with the past.*

For the same reasons, more information and more information employees, a starting point for so many enthusiasts struck by the differences between the present and earlier periods, cannot be taken to signal a new social system. As Krishan Kumar bluntly has it, 'the acceptance of the growing importance of information technology, even an information revolution, is one thing; the acceptance of the idea of a new industrial revolution, a new kind of society, a new age, is quite another' (1992, p. 52).

Bell's emphasis on 'theoretical knowledge', analytically if not substantively separable from the more quantitative changes referred to above, has greater appeal than his 'from manufacture to service' theme of post-industrialism. Being a qualitative change, with profound consequences for planning and control of social affairs, it is an arresting thought for anyone interested in social change and the possible significance of information/knowledge in the contemporary world. Intuitively it is persuasive, though it is underdeveloped in the writing of Bell and distinctively secondary to his emphasis on occupational change. In the writing of Bell either it is too vague to be readily applicable or, where made more precise, serious doubts may be cast on its novelty and weight. Nonetheless, it is in my view the most interesting and persuasive argument for our inhabiting an 'Information Society' today and the reason why I return to it in Chapter 11 and 13.

We remain with the fact of living in a world in which information and informational activity form an essential part in daily organization and much labour. On any measure the scale and scope of information have accelerated dramatically. Understandably, social scientists yearn to explain and account for this development. Our conclusion here is that it cannot be interpreted in Bell's 'post-industrial' terminology. Bell's ambition to impose the title 'post-industrialism' on the 'Information Society' simply will not do. If we want to understand the spread and significance of information in the present age we must look elsewhere.

Notes

- 1 Bell distinguishes the terms conceptually as follows: information means 'data processing in the broadest sense'; knowledge means 'an organised set of statements of fact or ideas, presenting a reasoned judgement or an experimental result, which is transmitted to others through some communication medium in some systematic form' (1979, p. 168). In practice he often uses the two terms interchangeably when discussing post-industrial society, though, as we shall see, some of his theorizing depends on a particular meaning of the term knowledge.
- 2 John Goldthorpe complained in 1971 of a 'recrudescence of historicism' among social scientists, and he charged Bell directly, 'even though historicist arguments may not be openly advanced or may be actually disavowed' (Goldthorpe, 1971, p. 263).
- 3 'As national incomes rise, one finds, as in the theorem of Christian Engel . . . that the proportion of money devoted to food at home begins to drop, and the marginal increments are used first for durables (clothing, housing, automobiles) and then for luxury items, recreation, and the like. Thus, a third sector, that of personal services, begins to grow: restaurants, hotels, auto services, travel, entertainment, sports, as people's horizons expand and new wants and tastes develop' (Bell, 1973, p. 128).

- 4 At this point sceptics need to suspend questions regarding the role of high-powered graduates with degrees in subjects such as physics, maths and economics who, in vast numbers, entered banking and finance in the City following the 1987 'Big Bang' deregulation and whose ventures unleashed 'casino capitalism' (Strange, 1997, 1998) – and complex mathematical models for derivatives, hedges, arbitrage, etc. – and did much to bring about the crisis of 2008 with which we are still contending (Lanchester, 2010; Lewis, 2011). It is also pertinent that Adair Turner (2009), one-time head of the City's Financial Services Board, described some of this work as 'socially useless'.

Regulation School

Each generation easily comes to believe that circumstances in its time are unprecedented. And of course they are in so far as each period is historically unique. Some scepticism is in order when hearing those who move beyond this truism to announce that we are going through a 'second industrial revolution' to enter an Information Society. When we encounter such heady talk we might usefully read and reflect on some serious history – one quickly discovers that ours is not the only period of anxiety, upheaval and innovation. But this need for hesitancy does not mean we should remain insensitive to change. Noteworthy transformations are taking place today and we need to take cognizance of them, even while we try to avoid hyperbole. It is widely acknowledged that established relationships are undergoing major change and that, in addition, the pace of change is quickening.

Take occupations: not very long ago most working-class boys in Britain's industrial areas such as South Wales and the North East could expect to follow their fathers into the collieries, shipyards or steel works. Those jobs, already reduced in the 1960s and 1970s, have almost disappeared altogether. In these regions new occupations tend to be either state-created 'govvies' or in areas such as call centres, tourism, leisure and personal care. The terrain and scents of these regions have even been recast, with landscaped former waste heaps forested and the distinctive aroma of coke-fired smelting ovens long gone (Kynaston, 2007). Indeed, occupations such as coal miner that stamped parts of Britain with a distinctive identity (and accounted for as much as 5 per cent of the workforce a century ago) are now becoming as anachronistic as the silk weavers of Spitalfields.

In late 2007 the West entered its deepest recession since the 1930s, after over a decade of growth. Following the burst of a financial bubble created by easy credit and questionable banking practices, finance houses collapsed or were forced into mergers (Northern Rock, Lehman Brothers, Merrill Lynch . . .). Across national borders, notably in Europe, 'austerity' policies followed that meant large-scale redundancies, cuts in public expenditure and reductions in pensions. Worklessness has hit hardest the young and peripheral countries such as Ireland, Spain and Greece. Disparate protests have followed, notably the loose-linked Occupy Movement and the emergence of neo-fascist parties that target immigrants and fiercely assert nationalism. There is palpable discontent with established politics and the practices of financial capitalism.

Politically most people had got used to a world divided into two camps after 1945. But 1989 put an end to that, with what were among the most momentous upheavals of the twentieth century bringing about the collapse of Communist regimes just about everywhere (China remains the major exception, with its queer combination of authoritarian Communism and support for the market). In the space of a few months, what had become an apparent fixture of the political scene had gone. The Soviet Union broke apart, as did the former Yugoslavia, while East and West Germany recombined. The ‘transitional’ economies such as Ukraine, Bulgaria and Estonia have experienced enormous upheaval and uncertainty, and no one can be confident about their long-term future, but a return to the past is unimaginable.

Socially we have had major, if intermittent, riots on the mainland of Britain over the past thirty-five years, erupting in urban centres such as London, Liverpool, Birmingham, Bradford and Bristol. Attacks on police, arson and looting marked many of these insurrections. An especially virulent series of riots, heavily racialized, took place in London and elsewhere in August 2011 that led to several deaths and much property destruction. We cannot know for sure when such lawless uprisings will next recur, but there are few doubts that they will be repeated at some times and in some places in the future. There have been similar such uprisings in places as far apart as Paris (where the *banlieues* raged for weeks late in 2005 and there were smaller repetitions in 2007, 2009 and 2012) and Los Angeles (where intermittent riots broke out during the 1990s, causing massive property damage as well as costing dozens of lives). Less dramatic, but perhaps as unsettling, we are experiencing profound changes in intimate relations, all reflected in changing family forms (what sociologists call ‘families of choice’ to encompass same sex relations, cohabitation and remarriages) and the daily anxieties of parents about what to do for the best for their offspring (and, increasingly common, stepchildren). Moral guardians may cry, ‘Back to basics’ and politicians insist on ‘respect’, but few think that urban lawlessness will be easily halted or that it is possible to resurrect marriage ‘till death us do part’ when children were just ‘brought up’.

It is easy enough to admit of all this turmoil, not least because we are made aware of it by more intensive and extensive mass media than have ever before been available. Every day on our televisions we learn about political instabilities, about economic problems and about disturbing social issues. Since every home has access to television, and since each television set is supplemented by several radios, newspapers, magazines and free sheets, we are not surprised that people can agree things are changing radically and at an accelerating pace. What these changes mean is, of course, a matter of debate, but of the scale, scope and rapidity of change itself there is little dispute.

That people become aware of changes largely through media alerts us to the fact that a key feature of upheaval is information and, of course, the technologies which handle, process and act upon it. The mass media themselves have been radically changed by new ways of gathering and transmitting information – from lightweight video cameras, now mostly mobile phones, which make it possible to access areas once hard to penetrate, to global satellite links which make it feasible to receive pictures on screens thousands of miles away in the space of a

few minutes. The whole world could watch as the Berlin Wall came down, when the former Yugoslavia was torn apart between 1992 and 1996, when the Twin Towers were demolished by hijackers using civilian aircraft as bombs in September 2001 and while the Iraq War raged from the 'Shock and Awe' invasion in 2003. Huge expansion of the symbolic environment – books, pamphlets, radio, television, video, the internet – has also meant that information on issues such as sexual relations, their satisfactions and their difficulties (from expectations of behaviour to the AIDS epidemic) is more widely available than hitherto, and this unavoidably enters our consciousnesses.

But the import of information in current change is much more than matters of increasing the messages audiences receive. Many new jobs, for instance, are today what one might call *informationally saturated*, requiring not so much manual dexterity and effort, but talking, writing and guiding, something illustrated poignantly by former coal miners now employed in showing visitors around the reconstructions of collieries in industrial museums such as at Beamish in County Durham and at the Black Country Living Museum in Dudley, West Midlands. There is also a widespread awareness that new technologies are an integral element of the turmoil itself: the application of computers in factory work means we cannot expect much job expansion there and very many of the jobs of the future presume familiarity with computerized equipment. Moreover, computerization accelerates changes in the here and now, and promises continuous change and a consequent need for ongoing adaptation among the workforce. Further, the extension of telecommunications around the globe means not only that it is easy to contact friends and relations pretty well anywhere in the world, provided they are near a phone, an internet café or a computer terminal, but also that economic and political strategies can, and indeed must, be developed and instigated with a sensitivity towards global factors.

Quite how much information and information technologies are causes or correlates of the tremendous changes taking place is a difficult matter to judge, but there are few dissenters from the view that change is deep seated, that it is taking place on a broad front, that it has been accelerating in recent decades and that information is an integral part of the process.

Moreover, change is much more than a matter of coming to terms with events and exigencies. As I implied at the start of this chapter, it is easy enough to recollect times that are more challenging than those we face today. For instance, the uncertainty and upheaval of the years 1939–45 put anything today in the shade for most people with a trace of historical sensibility. Yet the key difference nowadays is surely that changes are not just a matter of encountering crises of one sort or another, but of almost routine challenges to our ways of life. Thus after the Second World War nations could reconstruct themselves, aiming to improve on what went before, but by and large endeavouring to create a world that was familiar to most people. Factories would be reopened, former jobs taken up, old habits renewed. The pace and reach of change today challenges us on all fronts, from the obliteration of once secure occupations to reproduction of the species, from confidence in national identity to alarms about health and safety, from assaults on religious beliefs to questioning of moral values.

There are numerous attempts to understand the major forms of these changes, some of which we have already encountered and others that I shall discuss in later chapters. To some scholars we are amidst a transfer from an *industrial* to a *post-industrial* society, with Daniel Bell and others suggesting it is much to do with a shift from a manufacturing to a service society; to such as Zygmunt Bauman (1992) it indicates the transition from a *modern* to a *postmodern* world; to Scott Lash and John Urry (1987) it represents a move from *organized* to *disorganized capitalism*; while to Francis Fukuyama (1992) it reveals nothing less than the ‘end of history’, the triumph of the *market economy* over a bankrupted *collectivist* experiment. Each of these scholars endeavours to explain much the same phenomena, though with different emphases and, of course, strikingly different interpretations of their meaning and significance (Fisher, 2010).

To restate a major theme of this book: writers such as Daniel Bell and Alvin Toffler set out to persuade us that we are moving into a new type of society, the arrival of the Information Society. Most thinkers we encounter in this chapter acknowledge changes, but stress that they are mutations of capitalism, thereby underlining that familiar practices and principles remain in force, albeit that information has come to play a core role in ensuring capitalism’s continuity into the twenty-first century. And, to state the obvious, this is no mere academic debate. If the argument that we are now living in a profoundly different society prevails, it follows – as we saw with Daniel Bell – that some forms of critique and campaigns for change are invalidated. Contrariwise, should one be persuaded that capitalism remains the primary factor, rather familiar terms of analysis and action retain their force (though these may be pro or anti capitalism).

In this chapter I want to concentrate on thinkers who may be divided, for analytical reasons, into two interlinked camps, one suggesting that the way to understand contemporary developments is in terms of a shift from a *Fordist* to a *post-Fordist* era, the other arguing that we are leaving behind a period of *mass production* and entering one in which *flexible specialization* is predominant. These approaches are, in my view, among the most systematic and influential accounts of contemporary social, economic and political change.

It should be said that within these two schools there are differences of opinion and in what follows I shall try to indicate something of this variety, at the same time holding on to my analytical framework. In my discussion of a purported transition from Fordism to post-Fordism it is my intention to concentrate on ideas emanating from what has become known as *Regulation School* theory. Here major originators are economists Alain Lipietz (1987), Michel Aglietta (1979, 1998) and Robert Boyer (1990), though I shall incorporate several independent analysts. As I turn to flexible specialization theorists I focus attention on the most influential single publication in that area, Michael Piore and Charles Sabel’s *The Second Industrial Divide* (1984).

To present the full depth, disagreement and diversity of these contributions is too formidable a task for a single chapter, so I shall be offering a simplified account of what I intend to be an encompassing review. That said, in my discussion I shall pay particular attention to the role and significance of information in change and in these explanations. I do this not only for the obvious reason that information is the

subject of my book, and not only because, as we shall see, information is at the centre of all these accounts of supposed transition, but also because it will allow greater appreciation of information's salience and particular forms in the contemporary epoch.

Regulation School theory

The fundamental question asked by Regulation School is: how does capitalism ensure its perpetuation (Boyer and Saillard, 2002)? How does a system that is premised on the achievement of profit and continuous expansion achieve stability? Or, to put this in terms Regulation School theory thinkers prefer: how is *capitalist accumulation* secured? They have little patience with assertions that capitalism tends towards equilibrium if left alone, insisting that much more is needed to ensure social order than the 'hidden hand' of the market. Of course, it could be argued that any system which is in a constant state of motion, and capitalism is undeniably one such, is inherently unstable and that therefore there is something odd about Regulation School's search for the roots of stability in a dynamic economy (Sayer and Walker, 1992). Regulation School thinkers concede the point that instability is part and parcel of capitalist relations, freely admitting that employees will always want more from their employers than the latter are willing to give, that inter-firm competition will mean there is a perpetual need for innovation, that corporate takeovers are part and parcel of economic life. However, they are also taken with the question: how does capitalism manage to continue in spite of all these sources of tension? In other words, Regulation School seeks to identify ways in which instabilities are managed and contained such that continuity can be achieved amidst change. How does capitalism manage to readjust so it can be regularized over time? To the degree to which they address this question they may be thought of as trying to present an alternative to neoclassical theories of general economic equilibrium.¹

Regulation School thinkers seek to examine the *regime of accumulation* that predominates at any one time. By this they mean to identify the prevailing organization of production, ways in which income is distributed, how different sectors of the economy are calibrated and how consumption is arranged. Their contention is that, since the mid-1970s or so, the ongoing crises with which we are more or less familiar (recession, unemployment, bankruptcies, labour dislocation, etc.) are addressed by the establishment of a new regime of accumulation to replace the one that secured stability for a lengthy period after the Second World War. The suggestion is that the Fordist regime of accumulation, which held sway from 1945 until the mid-1970s, became unsustainable and that, hesitatingly and with considerable disruption, it gave way to a post-Fordist regime which would – perhaps – sustain the health of capitalist enterprise.

In what follows I shall concentrate attention on contrasting the Fordist and post-Fordist regimes of accumulation. This will, inevitably, be at the expense of much attention being given to *modes of regulation* by which social control is achieved, from legal statutes to educational policies. Readers ought to be aware of

that omission in what follows (Hirsch, 1991). Particularly as they read of attempts to construct a post-Fordist regime during the 1980s, they might reflect on the control mechanisms that were introduced during those years, from Margaret Thatcher's fatal weakening of the labour movement during the 1980s through changes in the legal status of trades unions, to revisions of the structures and syllabuses of schools and higher education, to reorganization of local government – notably the abolition of a major government critic, the Greater London Council (Kavanagh, 1990).

Fordist regime of accumulation, 1945–73

Regulation School theorists contend that these years may be characterized as the *Fordist–Keynesian* era, during which a number of interconnected features ensured that the system as a whole maintained equilibrium. Briefly, this was an expansionary period in which mass production and consumption were in reasonable balance, in which state involvement in economic affairs helped keep that harmony, and in which government welfare measures assisted in this as well as in upholding social stability.

Because Ford was the pioneer of production techniques which allowed the manufacture of goods at a price which could encourage mass consumption, while he was also at the forefront of payment of (relatively) high wages which also stimulated the purchase of goods, his name has been applied to the system as a whole. However, it would be an error to suppose that Ford's methods were established either everywhere or in the same way (Meyer, 1981). Rather, the terminology indicates that the Ford corporation was the archetype, especially at its peak in the post-Second World War phase when it came to represent many of the key elements of advanced capitalist enterprise. Similarly, since Keynes is the economist whose policies are most closely associated with state intervention in industrial affairs the better to manage matters, the term Keynesian should be understood paradigmatically rather than as suggesting that governments acted in a uniform manner across different nations.

The Fordist–Keynesian era had a number of important distinguishing features. We consider each of the most significant in turn.

Mass production

Mass production of goods was the norm. Here, in areas such as engineering, electrical goods and automobiles, it was characteristic to find standardized products created in large volume in largely undifferentiated patterns (fridges, vacuum cleaners, televisions, clothing, etc.) from manufacture using common processes (the assembly line system). Typically, manufacturing plants were large; at the upper end the Ford factory in Detroit had 40,000 employees on the one site, but even in England the motor vehicle plants in Oxford (Cowley) and Birmingham (Longbridge) each had considerably over 25,000 workers in the late 1960s; and, since everywhere cost-effective mass production required the economies of scale which came with size, factories of several hundred or even thousands of employees were typical.

Thus in the United Kingdom by 1963 fully one-third of the labour force in private sector manufacture worked for organizations with at least 10,000 on their payroll and over 70 per cent of people in manufacture worked in companies with more than 500 employees (Westergaard and Resler, 1975, pp. 151–2). A corollary was the development of distinctive localities, often entire towns, though more commonly a particular district – known by what they produced: for example Derby for its railway works and Rolls-Royce factory, Shotton, Corby and Consett for their steel works, Shildon and Swindon for railway construction, Coventry for its automobiles and Birmingham for engineering enterprises.

Industrial workers

Throughout this period the predominant group in employment was industrial workers. These were those predominantly male, blue-collar employees in manufacture and some extractive industries that evidenced strong regional and class attachments that were echoed in political affiliations and attitudes. Constituting 70 per cent of the British workforce in 1951, male manual workers still accounted for almost 60 per cent of the total twenty years later (Harrison, 1984, p. 381) and, in the early 1960s, about 60 per cent of all employment was located in sectors covering a range of industrial activities from mining to chemical production, while 43 per cent of jobs were accounted for by manufacturing alone.

In industry there was a high degree of unionization among the workforce that was recognized by most employers and channelled into institutional arrangements for handling labour and management relationships. At the local level this found expression in agreed negotiation procedures while at the highest levels it was reflected in a tendency towards what became known as corporatism (Middlemas, 1979), in which arrangements employers' representatives, trade union leaders and politicians would meet to resolve issues of mutual concern. This reached its peak in the 1960s with 'beer and sandwiches' meetings at 10 Downing Street and the formulation of the Social Contract between the Prime Minister and leading trade unionists.

Above all, perhaps, the longest boom in capitalism's history meant continual economic growth and, with it, full employment. Unemployment in Britain virtually disappeared, rates hovering around 2 per cent throughout the 1950s and early 1960s. This 'frictional unemployment', accounted for chiefly by those temporarily out of work while seeking alternative jobs, meant there was stability, assurance and confidence for the majority of the population.

Mass consumption

Over these years mass consumption became the norm, facilitated by (relatively) high and increasing wages, decreasing real costs of consumer goods,² full employment, the rapid spread of instalment purchase³ and credit facilities, and the stimulation that came with the growth of advertising, fashion, television and cognate forms of display and persuasion.

In the United Kingdom, lagging some way behind the United States, ordinary people gained access to hitherto scarce and even unimagined consumer goods – from toiletries and personal hygiene products, stylish and fashionable clothing, vacuum cleaners, fitted carpets, refrigerators, radios and televisions, to motor cars – in the years following on from 1945. Thus by 1970 nine out of ten homes had a television, seven out of ten a fridge, and over six out of ten a washing machine, while car ownership rose from 2.3 million in 1950 to 11.8 million in 1970, leaving over half the nation's households in possession of a car (Central Statistical Office, 1983, Table 15.4).

Most important, mass consumption relied on working-class people gaining access to what was offered since it was they, being the overwhelming majority, who constituted the biggest market for goods. As they achieved entry, so did they verify the slogan of the then Prime Minister Harold Macmillan that people 'had never had it so good'. Indeed they had not, since consumer goods had simply been unavailable at affordable prices for the mass of the population (major exceptions, of course, were 'beer and baccy').

More than this, however, *mass consumption became an axis of continuous and stable mass production*. That is, during this epoch it became clear that steady and sustained mass consumption of goods was a requisite of an expanding production base which in turn ensured full employment. During the Fordist era the health of the economy was increasingly determined by the strength of consumer purchases (and by extension borrowing and credit terms), notably in automobiles and white goods, but extending much further into other less prominent areas. Baldly, it became something of a virtue to consume, a remarkable transformation since previously the dread of poverty and the insecurities of employment made many unwilling to 'take on debt' (Kynaston, 2007; cf. Ewen, 1976).

The crucial point is that there was achieved some calibration, some mutual balance, between mass consumption and mass production. This supplied what one might think of as a virtuous circuit by which continued growth of consumption supported full employment, and jobs for all boosted consumer expansion. To ensure that this continued, a whole edifice of marketing and design techniques was developed – annual model changes in cars, a burgeoning advertising industry, new layouts of shops, trade-in deals and easy terms for purchase – but most important was the assurance of full employment and continuous real increases in income. So long as consumer demand was strong (and the state intervened frequently to ensure that it was), the economy could remain vibrant.

Nation state and national oligopolies

Throughout this period the nation state was the locus of economic activity and within this territory sectors were typically dominated by a cluster of national oligopolies. That is, surveying the industrial scene, one would characteristically identify three or four dominant companies in any one area, be it electronics, plastics or engineering. In line with this, in 1963 the leading five businesses in British manufacture accounted for almost 60 per cent of all sales in any trade area (Westergaard and

Resler, 1975, p. 152). More generally, the top one hundred companies achieved one-third of all Britain's manufacturing output in 1960, underlining the hold of large corporations. Moreover, indigenous companies had a firm hold on the domestic market, manufacturing industry being, as late as 1968, 87 per cent British by output.

With hindsight we can see that British industry was rather comfortably situated. It controlled most of the domestic market, it had few competitors, it was participating in steadily growing and secure markets and, increasingly, it was vertically and horizontally integrated such that it could maximize control and co-ordination over its interests.

Planning

Underpinning much else was an acknowledged role for planning (Addison, 1975), something most vividly manifested in the growth of the Welfare State, but also expressed in a broad consensus as regards the legitimacy of state involvement in the economy (i.e. Keynesian policies were bipartisan). Significantly, for example, the tide of nationalizations in the UK that followed the Second World War and took over much energy supply and communications was turned back by the Conservatives only in the steel industry during the 1950s. Other areas such as coal, gas and electricity were accepted across the party divide. The suggestion of Regulation School theorists is that this sort of accord bolstered extensive planning in many areas of life, as well as winning support from most people who felt that state-supplied education and health especially were of great benefit to themselves, thereby helping maintain stability through the Fordist system.

This description of the Fordist regime of accumulation involves much generalization, a good deal of which critics will find objectionable. Portraying the post-war decades in Britain as stable and prosperous too easily underestimates stubborn problems of poverty, conflict and economic uncertainty. Many who have lived through the 1950s and 1960s may find it somewhat strange to see this period described as an era in which taboos against credit were removed or as a time when British industries were immune from foreign competition (Sandbrook, 2005, 2006). Further, the depictions of Fordism too easily generalize from particular North American and West European experiences of post-war development. Just what application this has for, say, Malaysia, Japan or even for Italy and Greece is a moot point.

Again, the question of periodization is problematical – when, precisely, was Fordism? As we have noted, Henry Ford established his factories in the second decade of the twentieth century, and it is worth remembering that the concept was originated by Marxist Antonio Gramsci in an essay written during the early 1930s (Gramsci, 1971, pp. 277–318). It is generally argued that Britain lagged behind the leading Fordist country, the United States, but the fixing of dates (why 1945 onwards?) is rather puzzling, as, indeed, is a label applied to nations with markedly different forms of state intervention (compare, for instance, the more *laissez-faire* orientation of the United States with France).

At a later stage I shall present further criticisms of the Regulation School model, but stick here with the general accuracy of this description of Fordism's features. One may get a better appreciation of the Fordist regime by taking into account some of the major social and economic trends and events of the 1970s. It was at this time that, amidst a sharp recession and the shock of sudden large-scale oil price rises in 1973, there came about awareness that developments were taking place that meant the Fordist regime was no longer sustainable. Post-Fordism, signalled by the trends that undermined Fordist conditions, began to emerge during this period. As we shall see, at the centre of these changes were ways of handling, storing and acting on information.

Globalization

Probably the most important factor that has led to the downfall of Fordism, and something which is often thought of as a defining characteristic of the post-Fordist era, is globalization. In recent years the term has become one of the most frequently used by social scientists as well as by political and business leaders concerned with managing change (Held *et al.*, 1999; Steger, 2003). It is a long-term development, one still far from accomplished, but which accelerated during the 1970s and has continued since. The term refers *not* merely to an increasing internationalization of affairs that suggests more interaction between autonomous nation states. Globalization means much more than this: it signals the growing *interdependence* and *interpenetration* of human relations alongside the increasing *integration* of the world's socio-economic life. There is a tendency to conceive of globalization as primarily an economic affair, manifest in the tying together of markets, currencies and corporate organizations. It is this, but it is simultaneously a social, cultural and political condition evident in, for example, an explosive growth of migration, tourism, hybrid musical forms and heightened concern for global political strategies to meet threats and challenges to survival.

Capitalism, which has pioneered globalization, has proved itself extraordinarily successful: it has extended its reach across the globe simultaneously with penetrating deep into intimate realms of life. Thus, for example, capitalist activities are today at once worldwide (and rapidly extending into hitherto isolated areas such as the former Soviet Union and China) and, at the same time, well able to enter into spheres such as child care, personal hygiene and provision of everyday food-stuffs. Moreover, as it has done this, capitalism has brought the entire world into networks of relationships such that, for example, we may get our coffee from one part of the world, our wines from another, they their television from one region and their clothing from another, all of this conducted by interconnections which integrate the globe. Quite simply, the trend is towards the world being the context within which relationships are conducted, no matter how localized and particular the way in which an individual life may appear to be experienced (Wolf, 2005; Bhagwati, 2004).

In addition, and crucial to the operation of globalization, is the expansion of *transnational corporations* (TNCs) that have provided the major foundations of this

phenomenon. To be sure, TNCs have been a feature of most of the twentieth century, the Ford Motor Company, for instance, itself having an international presence long before the Second World War. However, it is important to appreciate the rapid growth and spread of transnationals and what Dicken terms their 'global networks of production, distribution and consumption' (2011, pp. 429–30) in recent decades. There are over 50,000 transnationals and, though in 1950 the vast majority of North American TNCs had subsidiaries in fewer than six countries, nowadays only a tiny few operate on such a limited scale (Dicken, 2003, p. 50).

The size and scope of TNCs can be hard to grasp, but some idea might be gauged by noting that, when the wealth of nations and corporations is scaled, TNCs can account for half of the largest one hundred units. In fact, in financial terms only a couple of dozen countries are bigger than the largest TNC. Figures from the business magazine *Fortune* demonstrate that the likes of General Motors (2012 revenues \$150 billion), IBM (\$107 billion), Royal Dutch Shell (\$484 billion), BP (\$386 billion), Citigroup (\$103 billion) and General Electric (\$147 billion) are indeed 'the dominant forces in the world economy' (Dicken, 1992, p. 49), and transnational corporations account for as much as 25 per cent of total world production and the vast majority of world trade (Held *et al.*, 1999, p. 282). Moreover, they are themselves highly concentrated, the biggest of the TNCs accounting for the lion's share of activity in any given sector. For instance, Dicken (1992) identified a 'billion dollar club' of just six hundred TNCs which supply more than 20 per cent of total industrial and agricultural production in the world's market economies, yet within these giants 'a mere seventy-four TNCs accounted for fifty per cent of the total sales' (p. 49).

Globalization, in crucial ways operationalized and constructed – if not controlled – by transnational corporations, has a number of especially significant features. Prominent among these are the following.

Globalization of the market

This means that the major corporate players may now work on the assumption that their markets are worldwide and that these are now open to all entities with the resources and will to participate in them. Of course, even nowadays few TNCs operate with a pure global strategy. Suggestions that TNCs are 'placeless' can be overstated since most have large proportions of assets and employment in a 'home' nation, but the trend is inescapable: calculations of 'transnational indexes' over time, which measure foreign assets, sales patterns and employment distributions, show a steady upward movement (Dicken, 2011, p. 165).

Globalization means that markets are today bigger than ever and that increasingly they are restricted to those with the enormous resources necessary to support a global presence. Paradoxically, however, markets are in key respects *more fiercely competitive* than previously precisely because they are fought over by giant corporations with the resources to have a global reach. At one time a national market might have been dominated by a local oligopoly, but, over the years, these have increasingly been trespassed upon by outsiders (and, of course, energetic indigenous

corporations have themselves moved outside their home country to attack other markets). These new challengers, in establishing a global presence, are at once bigger and more vulnerable than hitherto. Look where one will and one sees evidence of this process: for instance, the motor industry now operates at a global level, with vehicles being marketed on a world scale, something which means that one-time national champions can no longer be secure, a point underlined by the collapse in 2005 of the last major British motor vehicle manufacturer, Rover, following a decade of uncertainty, retrenchment and desperate partnerships to keep the company afloat. Rover had been a subsidiary of British Aerospace, then it linked with Japan's Honda and followed this with being bought by Germany's BMW. All failed and production virtually ceased a few years after BMW divested its stake. In the late 1960s Rover's forerunner, the British Leyland Corporation, had been the fourth biggest car maker in the world. Much the same features are manifest in petrochemicals, pharmaceuticals, computers, telecommunications equipment and consumer electronics. In fact, virtually everywhere nowadays the market is increasingly a global one.

This world market is roughly divisible into three major segments – North America, Europe and the Far East – since the remainder of the globe offers pretty poor prospects for return on investment, but of course the major TNCs operate extensively in all three domains. Moreover, noting this broad tripartite division usefully reminds us of something else that globalization of the market means. I refer here to the emergence of what are today perhaps the archetypical global corporations, namely Japanese conglomerates which profess to having no national roots (other than in those countries in which they happen to invest). The likes of Honda Motor (2012 revenues \$106 billion), Panasonic (\$99 billion), Hitachi (\$122 billion), Toyota (\$235 billion) and Sony (\$82 billion) have distinctive global strategies for their product ranges. Over the years, in automobiles, consumer electronics and, most recently, information and communications technologies, these have proved to be a serious threat to the dominance of Western corporations. Be it automobiles, office equipment, televisions, video or computers, the Japanese challenge has rocked what was for a time a comparatively settled economic order.

Globalization of production

It follows that, as corporations are increasingly involved in global markets, so they arrange their affairs on a world scale. Global production strategies are a central feature of such a development, TNCs increasingly arranging, for example, to locate their headquarters in New York City, design facilities in Virginia, manufacture in the Far East, assembly perhaps in Dublin, with sales campaigns co-ordinated from a London office. This may be an exaggerated case, but the inexorable logic of globalization is for TNCs to plan for such strategies in order to maximize their comparative advantage.

This development, as with the globalization of markets, catapults informational issues to the fore, since how else can market strategies and worldwide manufacturing facilities be organized other than with sophisticated information services? I have more to say about this later, but here observe that the globalization of production

also encourages the growth of what Dicken (1992) calls ‘circulation activities’ that ‘connect the various parts of the production system together’ (p. 5). That is, an essential condition of the globalization of production has been the *globalization of information services* such as advertising, banking, insurance and consultancy services which provide ‘an emerging global infrastructure’ (Dicken, 1992, p. 5). For instance, American Express, Citicorp, BankAmerica and Lloyds also straddle the globe, servicing the corporate industrial outfits that they closely parallel in their structures and orientations.

Globalization of finance

So a central aspect of globalization is the spread of worldwide informational services such as banks, trading houses and insurance corporations. These suggest something of the globalization of finance, but this latter refers also to something more, nothing less than the development of an *integrated global financial market*. With sophisticated computer communications systems in place, plus the deregulation of stock markets and the abolition of exchange controls, we have facilities for the continuous and real-time flow of monetary information, for round-the-clock trading in stocks, bonds and currencies. These developments have enormously increased both the volume and velocity of international financial transactions, bringing with them a heightened vulnerability of any national economy to the money markets.

The scale and speed of these informational flows is breathtaking. Twenty years ago Will Hutton (1994) observed that foreign exchange turnover now dwarfs the size of national economies and makes trade flows (a traditional method of measuring national economic activity in terms of import and export levels) appear small in comparison. Thus ‘[t]he total level of world merchandise trade in 1993 is two-thirds of U.S. GDP; it will take turnover in the foreign exchange markets less than a fortnight to reach the same total – leaving aside the cross-border derivative, bond and equity markets’ (Hutton, 1994, p. 13). Offering a historical perspective, Joyce Kolko (1988) traced an exponential growth in foreign exchange trading during the second half of the twentieth century. This has continued apace, more than doubling over the past decade to reach about \$4 trillion per day by 2013. For instance, flows through the Clearing House Interbank Payments System (a cooperative of about fifty finance and banking corporations based in the US) now average well over \$1 trillion daily (i.e. \$1,000,000,000,000 per diem). This daily flow is more than double the 2011 gross domestic product of Sweden, is five times that of Ireland and about the same as that of Canada and Spain. It is difficult to understate the influence of this on national governments.

Peter Dicken (2011) highlights the spread of ‘financialization’ into ‘an all-pervasive system of values based on the overriding prioritization of an equity culture, in which “shareholder value” and profitability have become central to *all* aspects of economic activity to the virtual exclusion of all interests’ (p. 59). Financialization is a phenomenon that acts with great speed, often in a herd-like manner. When nations lose the confidence of these markets their governments must act promptly to restore ‘confidence’ or face the collapse of their currency.

Globalization of communications

Another dimension of globalization, again intimately connected to these other features, is the spread of communications networks that straddle the globe. Clearly there is a technological dimension to this – satellite systems, telecommunications facilities and the like –, but here I would draw attention to the construction of a *symbolic environment* that reaches right around the globe and is organized, in very large part, by media TNCs.

This has many important social and cultural consequences, but here I would emphasize only the bringing into being of an information domain which provides people with common images. For instance, movies originating in the United States achieve far and away the largest audiences wherever they are shown across the globe. The top twenty movies of all time worldwide are all American products, ranging from *Avatar* (2009), *Skyfall* (2012), *Titanic* (1997), *The Lord of the Rings: The Return of the King* (2003), *Harry Potter and the Deathly Hallows* (2010 and 2011 for the sequel), *Pirates of the Caribbean* (2001 and 2006 for the sequel), *Star Wars 1* (1999) and *Jurassic Park* (1993) towards the top, through *Forrest Gump* (1994), *Mission Impossible* (2011), *Mamma Mia* (2008) and *Men in Black* (1997) at mid-point, to *Aladdin* (1992) and *Indiana Jones and the Kingdom of the Crystal Skull* (2008). None of these grossed less than \$600 million, and *Titanic* and *Avatar* took over \$2 billion. These movies were box office leaders in Germany, Britain, Italy, France, Spain, Australia and the United States – indeed, pretty well everywhere where there were cinemas. This situation provides audiences, widely diverse in their responses and dispositions though they be, with a mutual symbolic sphere – and much the same could be said about today's television shows, news agencies or, indeed, fashion industries. Nationally centred media remain very important (Tunstall, 2006), but it is the case that globalization is bringing into being shared symbolic spaces.

However much one might want to qualify statements about just what consequences this might have when it comes down to particular people and particular places, this globalization of communications has a significant part to play in the functioning of the global economic system. It cannot be said unequivocally that American television soaps dispose viewers towards the lifestyles portrayed, that the advertisements carried successfully persuade, that the designs displayed in the movies stimulate yearnings among audiences, or that the rock music emanating from Los Angeles and London encourages the world's youth to seek after the styles of clothing and foods eaten by its performers. Moreover, it is unarguable that these global images often incorporate several elements of different cultures so they are not entirely unidirectional in their orientation. In this respect Ulf Hannerz's (1996) description of 'Nigerian Kung Fu' is apposite. But what surely cannot be dismissed is the view that it is hard to imagine large parts of the world's economic forces continuing successfully without the underpinning of this symbolic milieu. It may not be sufficient in itself to persuade, but it is necessary to most commercial endeavour. To this degree one may conclude that the globalization of communications plays a supportive, if at times ambiguous, role in the global market system of which it is itself a major manifestation. It is hard to conclude anything else given

the centrality to contemporary marketing of 'branding', the association of products and even corporations with imagery which is propagated through the media industries. Consider in this light the centrality of symbols to Nike, Calvin Klein or to the Virgin label. These brands may on occasion be damaged or subverted by aspects of the global media, but it is scarcely disputable that without it they would not prosper.

Information infrastructure

Each of the dimensions of globalization requires and contributes towards an information infrastructure to cope with the changed stresses and strains of worldwide operation. That is, as globalization grew and as it continues, so ways of handling *information* and *information flows* have been put in place. We can identify major elements of this informational infrastructure:

- The worldwide spread and expansion of services such as banking, finance, insurance and advertising are essential components of globalization. Without these services TNCs would be incapable of operation. Information is, of course, their business, the key ingredient of their work, information about markets, customers, regions, economies, risks, investment patterns, taxation systems and so forth. These services garner information and they also generate and distribute it, having added value by analysis, timeliness of response or collation.
- Globalization requires the construction and, where necessary, enhancement of computer and communications technologies. In recent years we have seen the rapid installation and innovation of these technologies, which are a requisite of co-ordination of global enterprises.
- This information infrastructure has resulted in the growth of information stores and flows at an extraordinary rate (Cukier, 2010). For instance, business magazine *Fortune* (13 December 1993, p. 37) reported that international telephone connections to and from the United States grew 500 per cent between 1981 and 1991 (from 500 million to 2.5 billion). By 2002 it had been estimated (Lyman and Varian, 2003) that the world's telephones (of which there were over 1 billion) were busy for almost 4,000 billion minutes, meaning that for every person on the planet there were 10 hours of telecommunication (though of course most traffic is in the affluent areas). A reanalysis of Lyman and Varian's (2003) pioneering study that tried to measure the growth of information by Bounie and Laurent (2012) estimates a 75 per cent increase in information stored worldwide between 2003 and 2008. In bald figures this is a growth from 18 million terabytes to 31 million terabytes. Most of us will not be able to appreciate these numbers, such is their scale, but it may help to note that 1 byte makes the 8 bits that are sufficient to encode a single character of text. A megabyte constitutes 1 million bytes or 10 to the power of 6; a terabyte is 10 to the power of 12, a trillion. As Americans put it, 'go figure', then marvel.

The demise of Fordism?

Globalization means Fordism is increasingly hard to maintain. How could things be otherwise when Fordism's organizational premise – the *nation state* – is undermined by the international spread of transnational corporations and the constant flow of information around and across the globe? Fordism hinged on the sovereignty of nation states, on governments' capacity to devise and implement policies within given territories, on the relative immunity from foreign competition of indigenous companies and on the practicality of identifying distinctively national corporations. But these conditions are increasingly rare in the days of global marketing, frenetic foreign exchange dealings and enterprises located at multiple points around the world.

The nation remains important for a great many aspects of life, from law and order to education and welfare, and it remains a crucial component of people's identities, but economically at least it has declined in significance. There are two particularly significant indications of this. The first is that the rise to prominence of transnational corporations obscures what is owned by any given nation. To what extent, for example, can one consider GEC (until recently the UK's premier electronics company) or Hitachi a particular nation's property? Corporations such as these are usually given a national label, but with very large proportions of their production and investments abroad it is difficult to unambiguously designate them British or Japanese. As early as the 1970s, in Britain over 50 per cent of manufacturing capacity in high technology (computers, electronics, etc.) and heavily advertised consumer goods (razors, coffee, cereals, etc.) was accounted for by subsidiaries of foreign firms (Pollard, 1983). Are industries located in Britain, such as Nissan (Sunderland), IBM (Portsmouth) or Gillette (London), British, Japanese or American? About half of the output of Britain's top fifty manufacturing companies takes place overseas – a fact which surely confounds government strategies to bolster 'domestic' industries. Illustrative of the difficulties of imposing national identities on global corporations was GEC's response to British government efforts in 1998 to create a single European aerospace and defence company. A GEC spokesman rejected the overture as follows: 'We are a transnational firm, the sixth biggest US company. We are keen not to be seen as British' (*Guardian*, 1 June 1998). Since GEC closed and was amalgamated with British Aerospace to form defence contractor BAE Systems in 2000, and shortly afterwards much of the remainder of GEC went to Ericsson, there is much truth in this comment.

A disturbing second issue arises: to whom, then, are these TNCs responsive? If they have substantial investment outside the jurisdiction of what one might think of as their 'state of origin', to whom are they answerable? That begs the question of ownership, a matter of considerable obscurity, but we can be confident, in these days of global stock market dealings, that TNCs will not be owned solely by citizens of any one nation. To the extent that private corporations remain responsive primarily to their shareholders, this international ownership necessarily denudes conceptions of the 'national interest' and strategies developed by particular nation states.

A second way in which the nation state, and thereby Fordist regimes, is undermined is by pressures generated by operating in a global economic context (Sklair, 1990). If nation states are becoming less relevant to business decisions as investors and TNCs seek the highest possible returns on their capital around the world, individual countries must encounter overwhelming pressures to participate in, and accord with, the global system. As Premier Tony Blair (2005) bluntly put it: 'I hear people say we have to stop and debate globalisation. You might as well debate whether autumn should follow summer.' This is nowhere more acutely evident than in the realm of financial flows, with nation states nowadays especially vulnerable as regards currencies and investments should governments attempt to do anything unorthodox. They always fall into line.

Most nations now seek, more or less avidly, investment from TNCs, but the necessary precondition of this is subordination to the priorities of corporate interests which are committed to market practices (in so far as these maximize their interests) and at the same time are not restricted to particular territories. Thereby the freedom of particular governments to determine their national policies is constrained by the need to succour foreign investors.

Again, the outcome of unification of the world's financial markets has been that individual governments find their monetary sovereignty challenged whenever investors and traders sense vacillation or weakness. This means that political options and the autonomy of governments are taken away, since

an anonymous global capital market rules and its judgements about governments' credit-worthiness and sustainability are the ultimate arbiter – and much more important than the opinion of national electorates. It is before these that so many governments quail. If they do not obey the . . . policies that the market approves, then their debt and currencies will be sold – forcing them to face an unwanted policy-tightening.

(Hutton, 1994, p. 13)

During the mid-1960s the then Labour Prime Minister Harold Wilson complained of mysterious 'gnomes of Zurich' whose trading in sterling compelled his government to devalue the pound and reduce public expenditure. These experiences are frequently cited as instances of the power of financiers to limit national policies. And so they are, but how much more inhibiting are the pressures of today's immensely more integrated, electronically connected, financial centres.

Post-Fordism

These trends – the imperatives to develop global corporate strategies, an unprecedented degree of competitive ferocity between transnational behemoths, the undermining of national sovereignty with the globalization of financial affairs – combined with the recessions which afflicted advanced capitalism during the 1970s, have stimulated the creation of a new regime of accumulation. The suggestion is that, after a twenty-five year period of stability, Fordism had run its course.

With regard to Britain, historian Dominic Sandbrook (2010) writes that at this time the country ‘stood on the brink of a profound transformation’ (p. 13). The past still weighed, but new circumstances required radical changes, not least a thorough *restructuring* of corporate organizations if they hoped to achieve the sustained expansion once enjoyed and to come to terms with the new milieu in which they found themselves.

An important part of this was to be an assault on organized labour, initially the trade unions, but extending to collectivist ideas *tout court*. At one level labour needed to be constrained because its traditional practices were an obstacle to change, but at another it was symptomatic of the more generally cumbersome and entrenched character of the Fordist era. Globalization and continuing economic uncertainty demanded, as we shall see, rapidity and versatility of response, things which Fordism’s stolid ways could not deliver.

A requisite of profound change was therefore an industrial relations policy which disempowered the trade union movement. In the United States this was relatively easy, and after President Reagan’s defeat of air traffic controllers in the early 1980s there was little resistance to change. In Britain there was a more formidable labour movement, but it too was defeated by a variety of means, from legislation which weakened the effects of pickets and increased the financial liability of unions in law, a willingness to tolerate high unemployment, which grew over 200 per cent between 1979 and 1981 and cut a swathe through manufacturing industry, where were found the most organized working-class jobs, to a very determined government which defeated attempts – notably by the miners in a long and bitter strike during 1984 and 1985 – to thwart proposals to radically change their industries and occupations. A close correlate was moves to shed labour, a necessary corporate response to stagnant markets, but of longer duration in two respects. First, what is euphemistically termed ‘downsizing’ continued through the 1990s and beyond, with many successful corporations proving themselves able to generate ‘jobless growth’.

The second feature is more often regarded as a distinguishing aspect of post-Fordist organization. The suggestion is that corporations have begun increasingly to vertically disintegrate, by which is meant that, instead of producing as much as is possible within the single organization (and hence endeavouring to be vertically integrated), there is a trend towards contracting with outsiders for as many as is possible of the company’s requirements. This strategy of *outsourcing* fits well with downsizing since it requires relatively few employees in the central organization and helps when it comes to redundancies (contracts are not renewed instead of staff being sacked).

It will be evident that vertical disintegration is feasible only when there is an adequate *infrastructure of communications and computer facilities* of sufficient sophistication to allow the co-ordination and control of dispersed activities. How else could the likes of Benetton and the Body Shop, with hundreds of dispersed outlets, each with a designated geographical region for which they are responsible, co-ordinate affairs? This infrastructure – technological of course but also requiring personnel to provide vital information services – is regarded as an essential component of post-Fordism for several reasons, all of which underline the heightened

role of information in the new regime. I have already drawn attention to aspects of it in the discussion of globalization which presaged post-Fordism, but several features of the information infrastructure may be highlighted:

- 1 It is essential to allow the orchestration of globalized production and marketing strategies. Several commentators propose that we have witnessed the spread of a *new international division of labour* (Fröbel *et al.*, 1980), one overseen by transnational corporations capable of managing production, distribution and sales worldwide, co-ordinating sites in dozens of international locations. Just as outsourcing depends upon computerized communications which enable organizations to achieve continuous observation of suppliers and distributors without employing large numbers of staff in-house, so too is a global corporate strategy feasible only on the basis of a sophisticated information network. Furthermore, the restructuring process to which we alluded above, in all its dimensions, but especially in its 'global option' (shift production to Manila, component supply to Prague, enter markets in Moscow and get some facilities in Cork), 'would have been inconceivable without the development of information technologies, and particularly telecommunications' (Henderson, 1989, p. 3).
- 2 It is crucial to the handling of the global financial trade and cognate information services that are essential components of a globalized economy. Without reliable and robust information networks the extraordinary volume and velocity of share trading, stock market exchanges, inter-bank and bank-to-client communications, plus associated activities, would be untenable, and so, by extension, would be the post-Fordist regime of accumulation.
- 3 It is an integral element of endeavours to enhance competitiveness in an ever more intensely rivalrous context. To stay abreast of the competition, it is essential that companies are to the forefront of new technologies – in the words of one-time Minister of Industry, Patrick Jenkin, the choice is now 'Automate or Liquidate.' But the pressure to improve one's competitive edge extends to much more than having state-of-the-art computerized technologies on the shop floor. As important is that one's networks are developed and used optimally, within and between the organization that efficiency may be increased, to and from one's subsidiaries and suppliers that weaknesses may be eradicated and strengths built upon, and to one's markets that opportunities may be seized. Increasingly it appears to be the case that the successful corporation is that which is highly automated on the shop floor and offers the best product available, but which also possesses a first-class network that provides excellent databases on its internal operations, on real and prospective customers, and on anything else which may be germane to its affairs – and which can act quickly on the information it has available.

David Harvey (1989b) conceives the sum of these processes as resulting in what he calls 'time-space compression' (p. 284), something which has been taking place over centuries, but which since the 1970s has entered a particularly intense phase during which one-time limitations of space have been massively reduced (courtesy of

information networks, corporations can orchestrate their interests across huge distances) and the constraints of time have been eased (real-time trading is increasingly the norm in an age of global networks). Once places were so *far* away and it took so *long* to get there – just consider how long it took to get to the United States round 1900, or even to get from London to Paris – nowadays they are contactable immediately and continuously through ICTs. It is certainly true that an important element of time–space compression has been the spread of rapid means of transport, notably air travel, which, in the course of a few decades, has shrunk the distance between continents dramatically. But even more important has been the establishment of complex and versatile information networks that enable the continuous and detailed management of dispersed affairs with relatively little concern for the restrictions of time. When one considers, say, the provision of perishable fruits and vegetables in a typical supermarket, supplies which bring, from around the world, foods made available the whole year round, one begins to appreciate what ‘time–space compression’ means for life in the twenty-first century. Much the same imagination can be applied to the manufacture and supply of microchips, fridges, clothes and even books. Still more striking is the plethora of call centres in locations as diverse as Scotland, the Bahamas and Bangalore, far away from customers and corporate headquarters but combining cost-effectiveness and ready monitoring of activities.

These features each suggest a quality that is always highlighted in descriptions of post-Fordism – *flexibility*. However much individual thinkers may disagree about particulars, there is uniformity in the assertion that flexibility, on a range of definitions, is the norm. And this is posed, as a rule, as a distinct contrast with the circumstances that prevailed under Fordist regimes that were characterized as cumbersome, structured and standardized. Let us review some of the commonly considered aspects of flexibility, and as we do so one may bear in mind that Fordist times were characterized by their opposites.

For most thinkers influenced by Regulation School theory, the regime of ‘flexible accumulation’ (Harvey, 1989b, p. 147) is different from its predecessor in three ways:

- 1 There is a new *flexibility of employees*. That is, post-Fordist workers are those who neither no longer hold to rigid job descriptions nor have the attitude that, once equipped for an occupation, they stay there for the rest of their working life. In contrast to the era of ‘demarcation disputes’ and ‘once a fitter always a fitter’, today we have adaptability as a central quality, with ‘multi-skilling’ the norm. Here the image is projected of ‘lifetime training’, of realization that change is continuous in these ‘new times’, and that therefore employees must above all be ‘flexible’. Orientations to the job and to training are but one facet of this flexibility, since there is also *wage flexibility* (a trend towards paying individuals for what they do rather than at an agreed union or national rate), *labour flexibility* (be prepared to change jobs every few years, to which end it is increasingly common to be employed on fixed-term contracts) and *time flexibility* (part-time employment is growing fast, as are ‘flexi-time’ and pressures to work shifts and, frequently, through the weekends).

- 2 There is *flexibility of production*. Here the proposition is that Fordist methods are outdated by the spread, thanks to information networks, of more versatile and cost-effective production such as 'Just-in-Time' systems, which wait until orders are taken before the factory manufactures, hence saving on warehousing and, of course, on unsold products. To function, such systems must be flexible enough to respond with alacrity since, of course, customers will not wait long for the goods they have requested. Nonetheless, market competition puts a premium on such flexibility and impels corporations to invest in the information systems that can deliver it. Another form of flexible production is the vertical disintegration trend referred to above. It is evident that extensive use of subcontracts provides the corporation with the option of painlessly switching suppliers and products without the burden of offloading its own personnel.
- 3 There is *flexibility of consumption*. Here the suggestion is that electronic technologies allow factories to offer more variety than was possible in the uniform Fordist period. Nowadays shorter runs are cost-effective because computerization provides the assembly line with unprecedented versatility. In addition, and I return to this below, customers are turning against the uniformity of Fordist products, looking for *different* things which might express their own particular lifestyles and dispositions. Thanks to the information and communication infrastructure, goes the argument, customers' desires can at last be satisfied, with increasing amounts of customization of production in the post-Fordist epoch.

These elements of flexibility, it ought to be understood, are in practice combined to a greater or lesser degree. Thus in the archetypical post-Fordist organization the customer's order is received, its particulars are routed to the factory where the plant is programmed to meet individual specifications, and a multi-skilled workforce sets to and manufactures what is required with adaptability and urgency. Note, too, that the entire process hinges, at each stage, on information processing, application and distribution. From the level of ordering through to that of supply a rapid, versatile and sophisticated information network is a *sine qua non*.

It follows from these trends that we may observe in the post-Fordist era the *decline of mass production*. In place of centralized plant, what emerges are globally dispersed – but very high tech – units employing in any one place only a few hundred people at the most, though worldwide the organizing corporation is likely to have many more locations than before. In metropolitan centres opportunities for transnational corporations to reorganize internationally have exacerbated this trend, leading often to the movement of production to offshore and out-of-town locations, while occupations such as those in banking, insurance and business services have mushroomed since they offer crucial information services in key urban locations.

What this signals is profound changes in the sort of jobs available in countries such as Britain. The male industrial worker is becoming outmoded, factory work beginning to take on a museum-like character, this to be replaced by part-time females on fixed-term contracts in the service sector. Manufacturing jobs have, since about 1970, been in steady and seemingly irreversible decline and it is especially women who have entered the 'flexible workforce' (Hakim, 1987). By the 1990s little

more than a quarter of all jobs were left in industry, while services now account for over 70 per cent, where the majority of tasks are performed by women. We have experienced the undermining of much unionized labour and a collapse in its efficacy when trying to organize a new type of employee. Furthermore, in many organizations there appears to be a pattern of downsizing to a core group of permanent employees, and increased flexibility introduced by drawing on a large pool of peripheral labour (part-timers, those with insecure tenure). This has been described as the 'contingency workforce' (those employed only when circumstances are favourable – and dropped as soon as they are not), which has been estimated at 25 per cent of the US labour market. Within work, the emphasis is increasingly upon the versatile, information-oriented employee, at the upper levels those managerial groups whose numbers have burgeoned with restructuring and globalization, but even lower down 'information jobs' are on the increase in the clerical, sales and secretarial realms.

The emergence of post-Fordism transforms geographical areas too, breaking up regions formerly distinctive in their work, class and political outlooks. The decline of manufacture and the rise of service occupations have been both a story of gender shifts and one of a transfer of opportunities from the north. The pattern is more pronounced in the United States, where the 'rustbelt to sunbelt' trend is much observed, but even the UK has seen occupations and firms grow in the south of the country while other regions have undergone comparative decline.

Accompanying this is a shake-up of political and social attitudes. The mass industrial workers, their solidaristic unionism and their collectivist presumptions, have little appeal to the post-Fordist citizen. Instead we have a revitalized enthusiasm for individualism and the 'magic of the market' that replaces the discredited planning of the post-war years. Historian Kenneth Morgan goes so far as to argue that '[i]f there is one supreme casualty in British public life . . . it is the ethos of planning' (1990, p. 509), an ideology seemingly out of touch with the rapidity of change and *laissez-faire* operation of these 'new times'.

Nowadays it can seem that even the language of class has lost much of its salience. Long the core concept of social scientists ('Tell me your class and I'll tell you your politics, work, educational expectations . . . even your sexual habits'), today there is markedly less interest in its contours, conflicts and inequalities. It all seems dated, too resonant of the 1960s, of Alan Sillitoe novels, the dreary industrial north – rather old-fashioned and out of time. The best sociologists do continue to demonstrate that class still matters, but even they struggle to identify ways in which the language of just a generation ago fails to capture the variabilities and values of the unequal society that is Britain today (Savage *et al.*, 2005).

To be sure, there is in some intellectual circles interest in an *underclass*, thought to inhabit the inner city ghettos and isolated parts of the regions, but significantly it is considered a tiny group *detached* from the vast majority of society, separate and self-perpetuating, which, if an irritant to law-abiding, is apart from the bulk of the populace, which is mortgage owning, self- and career centred. Interestingly enough, some of the more compelling recent accounts of class in Britain come from deeply conservative thinkers eager to insist that class does still matter, though their analyses focus almost exclusively on those on the periphery of the system who are outcast,

alien, without a stake in post-industrial society and to be pitied, feared and condemned (Dalrymple, 2005; Mount, 2004).

It is commonplace now to insist that the majority of the population is to be understood in terms of *different lifestyles*. In the post-Fordist regime class categorizations, and with them an associated common culture (the working-class male: work, community, club, mates, pigeons, football, horses, beer), have given way to consideration of *differentiated* ways of life, to choices, options and – as noted above – customization of production. Uniformity and sameness are out, replaced by variety both within the individual and within social groups.

Some commentators insist that this results in the fragmentation of people's identities, in a loss of stability and satisfactions, while to others it is a democratizing force which opens up new experiences and opportunities, stimulates the 'decentred' self and generates excitement. However, whatever differences of viewpoint here, the condition of post-Fordism is agreed upon: there is a *new individualism* around, an acknowledgement of variable lifestyles, and recognition that class has lost force as a predictor of other dimensions of attitude and behaviour and as a basis of mobilizing people on the political or industrial front. Indeed, consumption (and increasingly home-centred consumption at that) has become a major definer of identity, replacing former notions of class that were rooted in where people stood as producers and where they lived in rather homogeneous localities (Kynaston, 2009, p. 221).

We can appreciate here yet again how information and information circulation play an especially pertinent role in the post-Fordist regime. As Fordism is transformed from a production- to a consumption-oriented system, not only is there a decline of the mass industrial worker, but also there emerges a more individualist and consumption-centred person. Information necessarily takes on a greater role in his or her life, first because consumers must find out about what is available to consume and, second, because in the individualized present they are eager to make statements about themselves through their consumption. Both factors promote information, the former because it concerns advertising and promotion of goods and services (information to reach the consumer), the latter because it involves the symbolic dimensions of consumption, people using objects and relationships to make statements about themselves, thereby generating more information.

Reichism

Much of this sort of thinking was drawn together by Robert Reich (1991) in his book, *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*. This work was important not only because it cogently articulated a new post-Fordist consensus which took hold in the 1990s,⁴ but also because it was written by a scholar who was to serve as Secretary of State for Labor from 1992 to 1996 in the Clinton administration and who was influential in the then emergent thinking in the rise of New Labour and 'Third Way' politics more generally. By the end of the millennium Reich's influence was such that New Labour's policies could accurately be described as Reichian. The argument proposed is that recent developments,

especially globalization, have placed an onus, not so much on ICTs, as on capabilities of people for information processing, analysis and distribution.

This intriguing suggestion revolves around Reich's claim that the ground rules of economic behaviour have changed. Reich suggests that what was once good for American corporations was indeed good for the United States since their production was concentrated inside the country (and hence provided jobs for Americans), but that globalization has transformed this situation. Today it is no longer possible to refer with any accuracy to distinct national economies. Such is the fluidity of capital and production that nowadays 'the very idea of an American economy is becoming meaningless, as are the notions of an American corporation, American capital, American products, and American technology' (Reich, 1991, p. 8). Now the economy operates irrespective of national frontiers, held together by what Reich describes as a 'global web' of relationships between, within and even across corporate organizations that are owned by dispersed shareholders.

Impelled by globalization, corporations are *vertically disintegrating*, undergoing a delayering of bureaucratic levels. This process has been evidenced in a host of 'downsizing' cases that have stripped middle management layers from the 're-engineered' corporation. The long-held dogma of sociology, as well as of businesses, that bureaucratic organization was a requisite of efficiency since rules and procedures, combined with a distinct hierarchy of command, were essential for smooth operation, has been undermined. The globalized economy is too fast-paced to allow for such cumbersome arrangements, and too competitive to allow the luxury of layers of bureaucracy. The upshot is that these are cut away simultaneously with the enhancement of authority for those who remain and who are able to be successful in this new world (of which more below).

There has been a shift away from mass towards *high value production and services*. This stimulates differentiation, innovation and the contribution of knowledge to economic matters generally, and to work more specifically, since specialized markets are constantly being sought, novel products being permanently developed, and their symbolic import and/or technical sophistication always increased.

The Fordist era of mass production is giving way in a globalized, but increasingly specialized, market to flexible customization, something that is sensitive to market needs and sensibilities. Products are increasingly *knowledge and information intensive*. The design on the tee-shirt (and the marketing that goes with it) is more valuable, for instance, than the actual materials used in manufacturing it. In addition, operation in a global market places a premium on those capable of defining niche markets across the globe, of spotting opportunities wherever they might occur, of cutting costs by dexterous accounting or management skills. All of this prioritizes the contribution to products and services of those most capable of adding value. A mere capacity to fabricate is no longer sufficient; the crucial factor is the ability to increase the worth of the good and/or the success of the organization. More generally, this shift towards high value increases the contribution of what Lester Thurow (1996) calls 'brainpower industries', such as biotechnology, media production and computer software, since these are the only sure bet in a global economy where cheap labour is abundant, but incapable alone of offering sophisticated new products which yet may come at prices lower than asked today,

since once a product is designed and developed the costs of production are minimal.

Combined, these factors result in the *prioritization of certain types of occupations* – those which manage and operate across global networks, those which are capable of offering design intensity, those which can provide high added value to products and services through scientific excellence, imaginative skill, financial acumen or even effective advertising.

To Robert Reich (1991) these are the 20 per cent or so of all occupations that he terms ‘symbolic analysts’, who hold together and advance the ‘enterprise networks’. They are the people who are ‘continuously engaged in managing ideas’ (p. 85) and who are in possession of the ‘intellectual capital’ crucial for success in the twenty-first century. Symbolic analysts ‘solve, identify, and broker problems by manipulating symbols’ (p. 178) and are represented in occupations that place stress on abstraction, system thinking, experimentation and collaboration. They are problem-solvers, problem-identifiers and strategic brokers located in jobs such as banking, law, engineering, computing, accounting, media, management and academe.

What all these jobs hold in common is that they are *informational*. Of course they hold expertise in particular areas, but precisely because they operate in a world of constant and frenetic change, their greatest quality is their high-level *flexibility*, hence a capacity to adapt their generalized abilities to ever-new circumstances. Information labour is always capable of retraining itself, alert to the latest thinking in its areas, holding a keen eye for shifts in fluid markets, watchful of changes in public feelings, constantly able to improve the product.

Thus equipped, symbolic analysts tend not to occupy permanent positions in a solid corporate bureaucracy, but rather to move around *from project to project* on a short-term and consultancy basis, drawing on their extensive networks and renewed knowledge to ensure effectiveness. Informational labour is characterized by that which moves from one research project to the next, from one marketing contract to another, from one media assignment to another. It features a ‘portfolio’ career that is self-designed rather than a bureaucratized one approved by the corporation (Handy, 1995).

To some this might appear to be a world without security and one that is characterized by increasing social fragmentation (Hutton, 1995), but there are more positive interpretations. Pekka Himanen (2001), for instance, conceives of a ‘hacker ethic’, a modern-day version of the Protestant work ethic that motivated so many of the makers of the industrial capitalism. While once some were wholly devoted to work and expansion of industry in the name of the Lord, so the ‘hacker ethic’ now combines counter-cultural outlooks that are open and non-hierarchical with commitment to the cause of creating innovations and change with the latest technologies, to which end ‘hackers’ will dedicate themselves to producing a piece of software, a piece of kit or some new computer game. Not unrelated is Francis Fukuyama’s (1997) claim that today’s successful ‘flat’ organizations empower employees, so they may find satisfaction in the autonomy they have and, while there may be a diminishing commitment to the organization, the fact that these highly skilled freelancers combine with like-minded people on specific projects might actually stimulate ‘social

capital' since there are ethical and professional bonds of loyalty between them. Tom Friedman (2005) echoes this take on the emergence of 'flat' organizations that give people their independence and thereby stimulate commitment among like-minded people.

The Prime Minister of Britain from 1997 to 2007 shares much of this positive interpretation and regularly voices his optimism. Thus Tony Blair (2005) insisted that 'in the era of rapid globalization, there is no mystery about what works: an open, liberal economy, prepared constantly to change to remain competitive'. In this globalized world Mr Blair refused to compete in terms of low wages, putting his faith in the 'knowledge, skills, intelligence, [and] the talents Britain has in abundance if only we set them free'. It is hard to imagine a more Reichian statement from a major politician.

The trouble with post-Fordism

Fordist/post-Fordist theorizations have attracted much attention in intellectual circles. For some, initial interest came from the search to explain the inability of the Left in Britain to win electoral support, voters recurrently (in 1979, 1983, 1987 and 1992) being unwilling to endorse collectivist appeals. There had to be a reason for this failure; after all, the people had frequently supported Labour between 1945 and the 1970s, so what had changed? More generally, there was awareness of rapid transformations taking place – redundancies in traditional industries, new job titles, a rush of new technologies, dramatic exchange rate upheavals and so on – which convinced many commentators that something radically different was coming into being. Not surprisingly a good deal of writing was produced which highlighted 'New Times' (1988).

Unfortunately, however, it is precisely this emphasis on radically 'new times' conjured by the concept *post*-Fordism that causes difficulty. The suggestion is, necessarily, that society has undergone deep, systemic transformation. And, indeed, what else is one to conclude when post-Fordism's characteristics are presented as so markedly *different* from what has gone before? On virtually every measure – from the conduct of production, class structures, the manner of consumption, work relations, even to conceptions of self – post-Fordism's features are presented in ways which mark it as a break with the Fordist era (Hall and Jacques, 1989).

It is because of this that one may note an ironic congruence between post-Fordism and the conservative post-industrial society theory of Daniel Bell that we encountered in Chapter 4, there being a shared concern to sharply distinguish the present from the recent past, to depict a new age coming into being, albeit that the conceptions have significantly different intellectual traditions. In fact, Krishan Kumar (1992) goes so far as to identify post-Fordism as a 'version of post-industrial theory' (p. 47), one which concerns itself with remarkably similar themes and trends.

Against this it is salutary to be reminded that, to the extent that private property, market criteria and corporate priorities are hegemonic – and these are acknowledged to be such at least in Regulation School versions of post-Fordism – very familiar features of capitalism still pertain. Hence it might be suggested that the

term *Neo-Fordism*, with its strong evocation of the primacy of *continuities* over change, is more appropriate. Put in this way, the suggestion is that Neo-Fordism is an endeavour to rebuild and strengthen capitalism rather than to suggest its supersession.

Most objections, at least to strong versions of the theory, also centre on the conception's tendency to emphasize change over continuity. This leads adherents too readily to endorse a binary opposition (Fordism or post-Fordism) which oversimplifies historical processes and underestimates the uninterrupted presence of capitalist relations through time. Some of the more telling criticisms of the theory include:

- The depiction of Fordism suggests an equilibrium that was far from the case between 1945 and 1973 (cf. Kynaston, 2009). For example, in Britain between 1950 and the mid-1970s one-third of farm workers' jobs were lost (Pollard, 1983, p. 275), a striking feature of the agricultural landscape, but one which brought forth no social theories of profound social change.

Indeed, when one comes across post-Fordists insisting that, for example, class politics are outmoded because the working class (taken to be manual workers) is disappearing, it is as well to remember that the *industrial* working class has always been in a minority in all countries *except* Britain (and even there it only just constituted a majority for a short period), and that manual work for much of modern history has been undertaken very largely by agricultural labourers. In Britain, for instance, farm workers accounted for 25 per cent of the occupied population in the mid-nineteenth century, more than the sum of those engaged in mining, transport, building and engineering (Hobsbawm, 1968, pp. 283, 279). Agriculture's continual decline since then (it is now less than 3 per cent of total employment) highlights the fact that the working class (i.e. manual workers) has a long history of recomposition (Miliband, 1985), with certain occupations growing and others in decline.

This being so, we might then also be sceptical of those commentators who conclude that a steady growth of white-collar work announces the end of the working class. This very much depends upon one's definitional criteria. Thus the expanding army of non-manual employees certainly does have particular characteristics, but it may be premature to assume that they are more decisively differentiated from the factory worker today than was the engineering tradesman from the agricultural labourer at the turn of the century or the carpenter from the refuse collector more recently. Moreover, recollecting these sorts of divisions within manual occupations, we might usefully reflect on the fact that there has never been a period of working-class homogeneity as suggested by the Fordist typology. After all, to take just voting preferences, we may be reminded that the 1950s in Britain were a period of continuous Conservative Party ascendancy despite the fact that manual workers contributed the overwhelming majority of voters.

In sum, it is as well to hold in mind that the equation of manual work with the working class, and this with homogeneity of outlook, is in part at least a construction of intellectuals. It may imply a confluence that in reality

is absent, just as it may suggest an unbridgeable gulf separating the working class from white-collar (and thereby middle-class?) work. Finally, while we ponder these problems, we might also remember that manual work has far from disappeared in the 'post-Fordist' era – in Britain today it still amounts to almost half the total workforce.

- Post-Fordism makes a good deal of the decline of work in factories and the shift to service occupations such as in finance and leisure. This is undeniably empirically true, but, as we saw in Chapter 4, it is hard to contend that this marks a really profound change. On the contrary, the spread of many services is to be explained by divisions of labour introduced to make more effective capitalist activity.
- The post-Fordist emphasis on consumption has met with many objections. Prominent among these are the following:
 - (i) Consumption has been a concern since at least the latter part of the eighteenth century when industrial techniques began to make consumer goods available on a wide scale (McKendrick *et al.*, 1982). Seen from a long-term perspective, recent developments may indicate an acceleration of trends, but scarcely a seismic change 'from production to consumption'. Accordingly, doubt is cast on post-Fordism's portrayal of its novelty.
 - (ii) The argument that consumption expresses increased individuation among people (the stress on difference) that corresponds to a capacity among today's manufacturers to supply personalized products, is questionable.

Several objections are made here, chief among which is that mass consumption and mass production continue unabated. While during the 1960s this came in the form of television and automobiles, today it is still cars, but also computer games, laptops, home computers and dishwashers, fitted kitchens, flat-pack furniture and the like which represent the latest generation of mass-produced consumer goods (stimulated, in part at least, by market saturation of other areas). To be sure, there are more consumer goods available today, but they are squarely within the tradition of mass production for mass consumers. These are entirely standardized objects (designed often on a modular basis) that presuppose considerable homogeneity among purchasers.

Further, the assertion of post-Fordists that mass consumption is anti-pathetic towards individualism (the image of the dull and dreary 1950s is always evoked) is dubious, not least because it is perfectly possible today – as it was a generation ago – to employ mass-produced goods in ways which reinforce one's sense of individuality. For example, one may select from a variety of mass-produced clothes combinations which when mixed are unusual and suggest individuality. Indeed, modularization of consumer products, a conscious strategy of corporate suppliers, is an endeavour to manage consumers' desire for choice *within* a framework of continuing mass manufacture. Think IKEA or Benetton here.

- Observing that mass production remains preponderant leads one to consideration of those responsible for organization of the corporate sector. Here one of

the recurrent themes of post-Fordist theory is that in the present era the emphasis on flexibility provides opportunities for small, fast-paced and innovative organizations to enter markets and beat their bigger competitors because they can be more responsive to consumer needs.

Against this should be set the history of the last fifty years that has been one of unabated expansion and aggrandizement of long-established corporations. Among the major characteristics of globalization has been the continued pre-eminence of transnational corporations that, wherever they operate, account for a huge share of the market. *Any* examination of the leading sectors of *any* market of economic significance will bear that out – be it computers, cars, telecommunications, white goods, sound systems, fruits or whatever. Indeed, what is particularly impressive is the way in which so many corporate leaders of yesteryear retain their prominent positions at the forefront of today's globalized economy – for instance Ford, General Electric, Shell Oil, Siemens, Proctor and Gamble, Daimler-Benz, Coca-Cola, Kellogg, IBM, ICI, Kodak, Philips, General Motors and Fiat. For sure, Google, Facebook and Microsoft are new behemoths, but what the evidence indicates is that there are fundamental continuities (occasional name changes and amalgamations apart) in post-war (and even pre-war) history, something which should make one hesitant to announce any 'post' developments.

Furthermore, there is little evidence to suggest that these industrial titans cannot respond to, or even create, consumer diversity in their production activities. Adoption of new technologies, allied to more versatile marketing, means that TNCs are 'quite adept at mass producing variety' (Curry, 1993, p. 110). One of the false premises of much post-Fordist theory is that global corporations are somehow incapable of responding with alacrity to local and particular needs. But there is no logical incompatibility between global reach and local responsiveness (Harrison, 1994), hence the strategy of 'glocalization' effected by such as McDonald's and News Corp. Indeed, astute marketers, armed with appropriate information bases and networks, are well able to *target* customers distributed around the globe and organize production appropriately. Thereby globalism and local responsiveness can be harmonized in the 'flexible transnational' (Robins, 1999b, p. 27) corporation. One might add too that TNCs have one particularly powerful form of flexibility denied to smaller outfits, the resources that allow them to buy smaller and impressively entrepreneurial companies that have shown promise by perhaps pioneering an innovative product or market niche.

There are a good many more criticisms of post-Fordism, the gist of which is to deny that Fordism, in so far as it is an accurate description of capitalist enterprise, is under serious challenge.

Flexible specialization

Such criticisms of post-Fordist conceptions carry weight, but they can always be responded to, at least by Regulation School-influenced theorists, by the insistence that what is being considered is not an entirely new system, but rather a mutation of capitalist regimes of accumulation. One can complain of ambiguity and uncertainty

in their analyses – how much is continuity, how much is change, just what is the balance between continuity and change? – but because most authors start their accounts from an interest in the dynamics of capitalism, there always remains the defence, to the charge that capitalist relations continue, that all that is being identified is another mode of capitalist enterprise.

However, there is another influential school of thought that, starting from a more focused position, presents a variant of post-Fordism that does suggest a more decisive break with the past. The writing of Michael Piore and Charles Sabel (1984), centring on work (or, in the academic terminology, labour processes), was pioneering in suggesting that the spread of flexible specialization/production offers the prospect of widespread improvement in ways of life. Moreover, because this theorization places particular emphasis on the role of information/knowledge in post-Fordist work situations, it merits here separate review from the more general Regulation School theory.

The argument is that during the era of Fordism, when mass production predominated, large volume manufacture of standardized products demanded specialization of machinery and a congruent specialization of labour which was, unavoidably, characterized by low levels of skill. Conjure the image of the assembly line in the large factory and one can readily picture this scene. It was one in which Taylorist techniques (rigid time and motion, hierarchical supervision, restriction of operatives to narrowly conceived routines designed by management) were the norm and semi- and unskilled labour the typical requirements.

For reasons I review below, Piore and Sabel contend that ‘we are living through a second industrial divide’, comparable to the first, which brought about mass production in the late nineteenth century. The most recent heralds ‘flexible specialization’, a radical break with the repetitious and low skilled labour of Fordism, one which will increase the skills of employees and allow greater variety in the production of goods. This flexibility is the keynote of the new age, one which portends an end to stultifying labour and a return to craft-like methods of production (Sabel, 1982). Piore and Sabel dream even of a revival of ‘yeoman democracy’ (1984, p. 305) in small co-operative enterprises that can respond rapidly to shifting market opportunities.

Three main reasons are adduced to explain the emergence of flexible specialization. First, it is suggested that labour unrest during the 1960s and the early 1970s encouraged corporations to decentralize their activities by, for example, increasing the amount of subcontracting they used and/or divesting themselves of in-house production facilities. This stimulated the spread of small, technically sophisticated firms, themselves often established by those displaced in consequence of the restructuring strategies of large firms, but eager for work, possessing high skills and adaptable. Second, changes in market demand have become evident, with a marked differentiation in consumer tastes. This provided opportunities for low-volume and high-quality market niches to which flexible specialization was well adapted. Third, new technologies enabled small firms to produce competitively because the advantages of economies of scale were reduced as skilled outfits began to maximize their versatility thanks to the flexibility of modern computers. More than this, though, the new technologies, being extraordinarily malleable

through appropriate programming, at once increase the competitive edge of the fast-footed small firm and upgrade existing skills because they 'restore human control over the production process' (Piore and Sabel, 1984, p. 261).

For my purposes it is necessary only to make two major points about flexible specialization. The first concerns the quite extraordinary diversity of opinion which endorses the notion. In what appears to be a generalized reaction against Harry Braverman's (1974) once popular contention that capitalist advance results in the progressive deskilling of labour (Penn, 1990), a host of thinkers now announce flexible specialization as the coming of an age which may upskill employees. In the UK these thinkers range from economist John Atkinson (1984), whose early studies of the 'flexible firm' struck a chord with political and business leaders who pressured for a flexible workforce as a response to competitive threats and recession (Atkinson and Meager, 1986), to Paul Hirst and Jonathan Zeitlin (1991), contending that flexible specialization may be formed anywhere where there are available favourable patterns of 'co-operation and co-ordination' which supply the necessary 'irreducible minimum of trust' between workforce and employers (p. 447) to make it happen. Across the Atlantic there is a correspondingly wide range of exponents, from radical critics like Fred Block (1990) who see 'postindustrial possibilities' bringing 'higher skill levels' (p. 103), to Soshana Zuboff (1988) of the Harvard Business School, who discerns the prospect of 'a profound reskilling' (p. 57) in recent developments.

The second point is that *information* is regarded as having a critical role to play in flexible specialization, in several ways. One is that, concentrating on production work as many of these writers do, ICTs are arguably the major facilitator and expression of flexibility. The new technologies are 'intelligent', their distinguishing feature being that they incorporate considerable quantities and complexities of information. As such the programmes that guide them are their fundamental constituents rather than any specific function they may perform. It is these information inputs that determine their degrees of flexibility, enabling, for example, cost-effective small batch production runs, customization of products and rapid changes in manufacturing procedures. Furthermore, it is this information element that provides flexibility in the labour process itself, since to perform the operatives must, of course, be multi-skilled and adaptable, hence more flexible (which in itself promotes the role of information). Where once upon a time employees learned a set of tasks 'for life', in the age of information technology they must be ready to update their skills as quickly as new technologies are introduced (or even reprogrammed). Such 'skill breadth' (Block, 1990, p. 96) means employees have to be trained and retrained as a matter of routine, a pre-eminently informational task.

Another way in which information is crucial also stems from this increased reliance on programmable technologies. The very fact that the machinery of production is so sophisticated requires that workers possess information/knowledge of the system as a whole in order to cope with the inevitable hiccups that come with its operation. Thus not only does information technology stimulate regular retraining, but it also demands that the employees become knowledgeable about the inner workings. In this way production workers become in effect information employees. In the terminology of Larry Hirschhorn (1984), these are 'postindustrial workers'

who 'must be able to survey and understand the entire production process so that they are ready to respond to the unpredictable mishap' (p. 2). Information technologies on the shop floor are a 'postindustrial technology' (p. 15) which takes away many of the physical demands and tedium of assembly work, but also requires 'a growing mobilisation and watchfulness that arises from the imperfections, the discontinuities of cybernetic technology'. Therefore 'learning must be instituted in order to prepare workers for intervening in moments of unexpected systems failure', something which requires comprehension of the overall system and a constant state of 'preparation and learning'. In this way we may foresee 'the worker moving from being the controlled element in the production process to operating the controls to controlling the controls' (pp. 72–3). As such the worker becomes part of 'educated labor' (Block and Hirschhorn, 1979, p. 369), impelled by information technologies to lead a 'fluid, flexible life course' (p. 379).

More than this, flexible specialization also encourages employee participation in the design of work. That is, computerization of production provides a 'feedback loop', 'cybernetic feedback' (Hirschhorn, 1984, p. 40) to the operative that enables him or her to act by reprogramming the system in appropriate ways. Here we have the worker depicted as informationally sensitive, made aware by advanced technologies of what is happening throughout the production process, and able to respond intelligently to improve that overall system. It is this which Soshana Zuboff (1988) refers to as the *reflexivity* that comes from working with ICTs, an 'informating' process that she believes generates 'intellective skill' (p. 10).

Scott Lash and John Urry (1994) take this reflexivity element to greater heights, en route relegating the emphasis on ICTs in favour of information itself, while also taking aboard concern for areas of work other than those involved with production. In their view we inhabit an era of 'reflexive accumulation' where economic activity is premised on employees (and employers) being increasingly self-monitoring, able to respond to consumer needs, market outlets and, not least, rapid technical innovation, with maximum speed and efficacy. In such circumstances information occupies centre stage since it is this that is the constituent of the vital reflexive process that guides everything and which is a matter of continuous decision-making and amendment on the basis of ongoing monitoring of processes, products and outlets (Thrift, 2005).

In addition, production of things has become infused with symbols in so far as *design* elements have become central to much manufacture while, simultaneously, there has been an explosive growth of work that is primarily and pre-eminently symbolic (for instance the culture industries). These changes are manifest, argue Lash and Urry (1994), in the motor industry (where a great deal of innovation is a question of design rather than narrowly conceived technical refinement), but how much more have they penetrated the music business, television production and publishing, fast-expanding cultural industries where information soaks into every aspect of work (pp. 220–2).

The contention here is that work increasingly features 'design intensity' as its informational dimensions move to the fore, whether it is in the manufacture of 'stylish' clothing and furniture or whether it is in the area of tourism and entertainment. Further, against the perception that work is largely a matter of routinized factory

production, Lash and Urry emphasize ways in which even goods production has been influenced by wider developments which impel products to incorporate cultural motifs (they have been 'aestheticized') and which intrude into work relations such as to inculcate a 'university'-like ethos in pioneering areas such as the IT industry.

Scott Lash (2002) locates such trends in the even wider context of a shift from a 'logic of manufacture' to a 'logic of information' that heightens unpredictability and introduces an imperative to live with the 'disorganization' that accompanies an unstable economy revolving round knowledge-intensive innovation and a culture that is equally insecure. This amounts to us living in a 'disinformed Information Society', one characterized by upheaval and ephemera, a lack of fixity in everything that we do, that information at once enables and undermines.

In such chaotic circumstances work can take one of two forms: either innovation can be devolved to the shop floor and operatives allowed a larger role in the process (in the manner of Hirschhorn), or it can bypass the shop floor altogether, with its functions taken over by 'professional-managerial workers' (Lash, 2002, p. 122) such as found already in the high tech and advanced producer and consumer services. Lash envisages radical alternative societies emerging in this milieu. There may be 'dead zones' of deindustrialization that fail to adapt to the information economy and come to be marked by high unemployment while hanging on to traditional cultures that are 'tame zones' in so far as they remain reasonably orderly, traditional in outlook with some common ways of life. On an opposite pole Lash perceives 'live zones' that thrive economically in knowledge-intensive and innovative work practices, yet which also subscribe to established culturally 'tame zones' (for example the conservative habitus of lawyers and accountants commuting from the shires to the City of London). Yet Lash can also see 'live zones' that are commercially buoyant, being engaged in informational activities such as fashion, music and media, yet which adopt a radical cultural outlook, thereby inhabiting a 'wild zone' of innovative and challenging lifestyles (e.g. as found in parts of London such as Camden and Shoreditch). Against this, one might also identify areas of disintegrated and combative culture in a 'wild zone' that is economically unsuccessful, perhaps where low-paid and insecure jobs are accompanied by a collapse of common values and behaviours. In this emerging world, whatever the cultural forms that emerge, there can be little doubt that the best prospects are found in the highly skilled information occupations that manifest 'flexible specialization'.

Web relations

We may recall Robert Reich's (1991) work here because of its suggestion that 'symbolic analysts' have become the key drivers of the economy and organizers of innovation readily connect with concepts of flexible specialization. Reich suggests that 'symbolic analysts' – those who do the thinking, analysing and planning in the information age – rely on and develop ways of working which are best understood, not as positions within a particular corporate hierarchy, but rather as situated amid 'global webs'. This idea has been endorsed by other influential social scientists, not least Manuel Castells, whom I cover in Chapter 6.

The argument is that work is increasingly a matter of horizontal rather than vertical relationships. In the Fordist era most people worked for the company and edged their way up the career ladder over the years, in return for their loyalty getting an annual increment and a guaranteed pension at the end of working life. Today, however, corporations have de-layered corporate hierarchies for reasons of cost saving (and because ICTs allow them to do this), as well as to improve competitiveness, but as they have done so they have necessarily empowered those who guide and initiate innovation (and thereby provide market edge). These latter are well educated and highly skilled, and not as a rule much concerned with bureaucratic niceties. They have loyalty not to the company (which anyway has withdrawn much of this in search of efficiency and competitiveness), but to the project on which they happen to be working. Their identities, moreover, are much more attuned to the colleagues – who are widely spread geographically – who work in the same sort of areas. Praise from them is a key motivator, not a year's increment on salary or an away day with the company.

Further, in day-to-day operations they rely heavily on networks of colleagues who may be at a considerable distance apart. Nevertheless, so long as they are on the 'web' they can be brought together expediently for the project. In a world in which flexibility is a must for competitive advantage, these information experts who are able to act rapidly and who possess a record of achievement demonstrated by a series of successful projects are at a premium – though the company has little to offer them on any long-term basis. If one imagines the work practices of top-level software engineers, academic researchers or journalists, then one may readily appreciate this phenomenon. Such people's top priority is rarely a particular company, university or newspaper, but more often the esteem of their peers. Their main concern is the piece of software on the go, the research project or the story on which they are working, to which end they routinely draw on the expertise of their own networks. Such employees routinely reskill themselves, learning from peers and thirsting for the next project, and they move readily from one project to another. They are, in short, flexible specialists *par excellence*.

These ideas of flexible specialization, with the suggestion of work being information-intensive and of higher skill levels than hitherto, are understandably appealing. The notion of a constantly learning worker evokes an image of 'flexibility' that has achieved considerable credibility. Still more attractively, one can recognize the professionalized employee in the cultural industries, eagerly on the lookout for new 'ideas' or 'styles' to take up and explore, dealing all the time with information in a reflexive manner, while searching out market niches by constantly innovating. The writer of self-help books, the travel guide, the producer contracted to Channel 4, the management consultant are all of this type. It is possible, as we have seen, to suggest that those who take up such occupations are driven in ways reminiscent of the protestant work ethic, monetary reward being inadequate to motivate these sorts of people (Himanen, 2001).

However, theories of 'flexible specialization' have had to encounter a great deal of hard-headed criticism. Prominent among this are the following:

First, with some of the advocates there is, often in spite of explicit disavowals, a strong trace of technological determinism. Those such as Hirschhorn (1984) who

place emphasis on the cybernetic capabilities of computers fall too easily into a tradition which presumes that advanced technologies bring with them advanced skill requirements. From his perspective ‘industrial technology’ is ‘transcultural’, unavoidably ‘shap[ing] social life in the same mould everywhere’, only to be broken (and liberated) by ‘postindustrial technology’ (*sic*) which brings flexibility (p. 15).

Second, ‘flexible specialization’ is presented as the opposite of mass production and, with this, in some way contrary to the continuing dominance of large corporate organizations. However, it is doubtful whether this is the case, for several reasons. One, which has already been reviewed, is that it underestimates the flexibilities of giant corporations that are well able to introduce into their affairs new modes of working, new technologies that enhance versatility and modular products that allow for significant product differentiation while continuing mass production practices. As Michael Sabel concedes, ‘existing Fordist firms may be able to meet the changing demand without sacrificing their fundamental operating principles’ (1982, p. 194). Case studies of large motor manufacturers indicate this possibility; Nissan, for example, established a new and flexible production plant in Sunderland, but continued relations which entailed close control over a subordinated labour force (Garrahan and Stewart, 1992). Again, a study of Nike (Vanderbilt, 1998) concludes that production remains thoroughly Fordist, with the added benefit for the company that 70 per cent of its trainers are manufactured in China and Indonesia, with organization and marketing – the critical information work and ‘value added’ in terms of what can be charged for the shoes – located in the United States. Amazon, the quintessential smart and uber-flexible corporation founded in 1994, stores stock in giant warehouses where orders are processed by drone-like employees (Williams, 2013), ‘pickers’ who follow a route to retrieve objects set out on a hand-held computer (which also monitors the pickers’ speed and schedule), walking between 7 and 15 miles per shift and subject to arbitrary ‘release’ (redundancy) (O’Connor, 2013). Perhaps, as Keith Grint (1991) observes, it is unwise to conceptualize changes in terms of such decisive differences as flexible versus mass production might imply. More likely, ‘[w]hat we have . . . is not the replacement of one form of production by another but the development of parallel and juxtaposed systems operating for different kinds of markets’ (p. 298).

A third objection is that, in spite of undoubted examples of flexible specialization that may be found, mass production remains dominant throughout the advanced economies. Thus any suggestion of a marked change is empirically false. Still another insists that there is little new about flexibility since it has been a feature of capitalist enterprise since its origination (Pollert, 1988, pp. 45–6). The nineteenth century is replete with instances of specialist enterprises to meet market segments, but no one has ever felt a need to present the rag trade or toy makers (cf. Mayhew, 1971) as illustrative of flexible specialization. Connectedly, while enthusiasts present flexible specialization in positive terms, it can be interpreted as the re-emergence of what others have termed ‘segmented labour’. That is, while there may indeed be a core of confident, skilled and versatile employees, there are also identifiable much more vulnerable (and hence flexible) ‘peripheral’ people working part time, casually or on short-term contracts (Gordon *et al.*, 1982).

Arguably these ‘peripheral’ groups have expanded in recent years, though there is some doubt about quite how much this has happened and certainly they have long been a feature of capitalist enterprise.

Fourth, a serious objection to the view that what is emerging with post-Fordism is a self-starting, fast-adapting and easily disposed-of workforce, is that tenure in jobs is not in decline. While considerable anecdotal evidence (Sennett, 1998) exists about ‘contingent’ employees and contracts of short duration, more systematic data find that actual job tenure increased for most over the 1980s and 1990s (Bowers and Martin, 2000). Now, this may be because people are sitting tight in uncertain times, or it might be because they can change adeptly within a given organization. Equally, however, it may be that the entire theory of flexible specialization is overblown, the product of journalists (who do appear to have little job security) and academic entrepreneurs projecting their own experiences and apprehension on to the wider society.

Finally, perhaps the sharpest attack has come from Anna Pollert (1988, 1990), who criticizes the vagueness and catch-all character of ‘flexibility’, which, when broken down into more testable elements (flexibility of employment, of skill, of time, of production), loses much of its force and originality.

Conclusion

This chapter has undertaken a review of claims that there has been a transition from a Fordist to a post-Fordist regime of accumulation and the related argument that mass production has given way to flexible specialization. It is difficult to sum up the state of the debate since a good deal of the argument is ambiguous and uncertain, often unable to state directly whether we are supposed to have experienced a systemic change or whether what has emerged is more a continuation of established capitalist relations.

What is clear, I think, is that we ought to be sceptical of suggestions that we have undergone a sea change in relationships. Features of capitalist continuity are too insistently evident for this: the primacy of market criteria, commodity production, wage labour, private ownership and corporate organization continue to prevail, establishing links with even the distant past. Nonetheless, from the premise that capitalism is a dynamic form of economic and social arrangement, it is surely indisputable that we can observe some significant shifts in orientation, some novel forms of work organization, some changes in occupational patterns and the like. We should not make the mistake of going beyond acknowledgement of these changes to the contention that we have witnessed a system break of a kind comparable with, say, slavery’s supersession by feudalism or, more recently and certainly more profound than any Fordism to post-Fordism transition, the collapse of Communist regimes and the attempts to replace these with market-based systems.

This qualification aside, I believe that several major changes in post-war capitalist organization may be registered:

- The recession that hit capitalist societies in the 1970s impelled a restructuring of relationships that unavoidably resulted in upheaval and instability.

- The process of globalization, in its diverse aspects, continued and accelerated, making it untenable for corporations to continue as before, and presented them with challenges and opportunities that had to be met.
- Throughout the period transnational corporations expanded in size, scope and reach, in ways without historical precedent that made them the major players in the global economy.
- Something of the success of changes represented by post-Fordism can be noted in response to the 2008 financial crisis of the Western economies and the recession/depression that followed. Despite the severity of the crisis and the readily identified anger with the bankers and financiers at its storm-centre, the general inability to offer alternatives is remarkable.

Combined, these developments precipitated major changes in capitalist activity, not least an acceleration of change itself, something which encouraged more flexible strategies of production, marketing and, to some degree at least, consumption. And absolutely axial to these developments, and to the handling of change itself, was information, from the level of the factory and office floor to worldwide corporate operations.

Information may not have brought about these changes, but today it indisputably plays a more integral role in the maintenance and adaptability of capitalist interests and activities. By way of a conclusion, let us signal some of the crucial ways in which information contributes:

- Information flows are a requisite of a globalized economy, particularly those financial and service networks which tie together and support dispersed activities.
- Information is central to the management and control of transnational corporations, both within and without their organizations.
- Information is crucial to the emerging phenomenon of global localism (otherwise known as glocalization), whereby international and local issues and interests are connected and managed.

Information now plays a more integral part in work practices, at once because computerization has pervasive effects and also because there has been an increase in the information intensity of many occupations. The organizing, planning and implementation of much activity nowadays require specialists in information, Reich's 'symbolic analysts', and in turn their actions have major consequences for everyone else.

Notes

- 1 To the extent that it shares this problematic it can be appreciated that Regulation School theory, as an apparently critical theory of capitalism which derives a good deal of its concepts and insights from Marxist writings, fits rather neatly into a conservative framework. After all, if one seeks to explain how and why capitalism maintains itself, is this not tantamount to denying the Marxist theme that capitalism will be supplanted?

Regulation School theory does present a somewhat functionalist account, one that, in identifying how order is maintained under capitalism, somehow elides the ragged edges of the system.

- 2 Arthur Marwick (1982) demonstrates that average weekly earnings rose 130 per cent between 1955 and 1969; over the same period retail prices rose only 63 per cent. Moreover, while prices of food and other necessities rose steadily, many consumer goods such as cars, televisions and washing machines actually cost less (p. 118).
- 3 Eric Hobsbawm (1968) calculates an almost 300 per cent increase in instalment debt in Britain between 1957 and 1964 (p. 225).
- 4 Other pertinent thinkers, notably Lester Thurow (1996), Tom Friedman (2005) and Manuel Castells (1996–8), whom I discuss separately in Chapter 6, were also formulating this thinking.

Network society: Manuel Castells

Manuel Castells is the stand-out scholar of information issues and has been so for a generation. His trilogy *The Information Age*, the first edition of which appeared between 1996 and 1998, offered a systematic understanding of what Castells conceives of as the 'network society'. *The Information Age* was reprinted often and has been translated into over twenty languages. Reviewers even ranked Castells alongside the classics of social thought. Impressed by the encyclopaedic character of his study and its remarkable conjoining of empirical data and bold theorization, many regard Castells as a fitting successor to Karl Marx, Max Weber and Emile Durkheim.

The Information Age presented a thorough account of the social, economic and political features of 'informational capitalism' and I discuss these below. In the intervening years Manuel Castells has continued to build on his earlier analyses. This has taken him, most noticeably, into closer examination of media and mediation in general, the vital symbolic dimensions of the 'network society' that have such a heightened role in life today (think round-the-clock television and radio, the media saturation of politics, and the ready availability of web-based news services).

In this, Castells persists with his abiding interest in power relationships (in who gets what, how and in what circumstances). A core concern is how the presence of media is consequential for pretty much everything that goes on nowadays: it is pervasive and it is where power is actioned, encountered and mobilized. Wanting to understand the dynamics of domination and resistance, Castells has a close eye for media, how they are used by those at the top and how those below take to them. His book *Communication Power* (2009) draws attention in particular to the vital role of symbolic politics from *above* (with established political parties and interests), from *below* (in insurgent social movements that can use new and old media to effect) and from *beyond* (in so far as media flows increasingly transcend national borders, so then does their capacity to affect domestic politics). Most recently, Castells (2012) – a long-term scholar of social movements – has turned his attention to 'networks of outrage and hope', hence to the Arab Spring, to anti-Austerity protests, to the Occupy movements in and beyond the United States. His analyses of these and associated networks – those 'horizontal' networks that seize opportunities for 'mass self-communication' – in effect address a spate of commentary that sees in new technologies democratizing opportunities because of their interactive capacities and massive potential reach. I will discuss more directly Castells's contribution to this theme later in this chapter (pp. 120–2), but such is its vibrancy that it recurs throughout this book.

Anyone attempting to examine the role and character of information must come to terms with the work of Manuel Castells. There is no better place to begin that task than with *The Information Age* trilogy. Born in Barcelona in 1942 in a Francoist family, as a student left-wing radical Castells fled into exile from Franco's dictatorship at the age of 20. He went to Paris, where he completed a doctorate, taught at the University of Paris, was caught up in the *événements* of 1968 and published in 1972 an innovative and influential text, *The Urban Question*, which was shaped by the then popular structuralism of Marxist philosopher Louis Althusser (1918–90). Castells moved in 1979 to the University of California, Berkeley, where he was Professor of City and Regional Planning and Sociology for two decades. He has since moved back to Barcelona, where he is professor at the Open University of Catalonia, though he maintains a position in the United States at the University of Southern California in Los Angeles.

Manuel Castells's reputation was long ago established as an urbanist. However, *The Information Age* synthesizes and extends his earlier work on cities to present what is in effect an account of the overall character of contemporary civilization. Simultaneously it reveals a long-term movement from a youthful Marxism to what may be termed a post-Marxist social science. This is not to say that Castells has abandoned his radicalism. He remains passionate about politics and is a committed social democrat.¹ There is palpable excitement in his references to the protesting *indignados* he studied in Spain, Castells (2012) confessing that he 'connected spontaneously with the values and style of the movement' and might have joined them physically, but his 'old bones would not take easily to sleeping on the pavement' (p. xi). Indeed, an *engagé* quality drives and informs his intellectual work, something he shares with social analysts as diverse as C. Wright Mills, Ralf Dahrendorf and Daniel Bell. I rather think that deep concern, even commitment, is characteristic of the highest forms of social science scholarship, though of course one must never think partisanship is sufficient to produce high quality research.

While Castells remains politically ardent, still he is a post-Marxist in so far as *The Information Age* embraces and elaborates criticisms of Marxism that were prefigured in his earlier book, *The City and the Grassroots* (1983). His post-Marxism is evident in various ways: in a conviction that radical political change is unlikely to stem from the working class (the proletariat as the privileged agent of change is now illusory); in scepticism, even hostility, towards Communism; in a conviction that identity politics such as feminism now matter enormously and that these cannot adequately be explained in terms of class; and in a jaundiced perception of intellectuals' political advice (Castells, 1998, p. 64, 359).

Yet still Marxism has left an impress on Castells's thinking. As we shall see, this is evident not least in his retention of Marxist concepts such as 'mode of production', and in his insistence that the role of capitalism should be highlighted. Marxism's influence can also be tracked in the organization of the three volumes that make up *The Information Age*. Volume 1 stresses social structural matters such as technology, the economy and labour processes that lay the foundations for the 'information age'. Volume 2's primary concern is with the sociology of the 'network society', in particular with social movements that have arisen in response

to these fundamental changes and then take advantage of the new circumstances presented. Volume 3 is the most explicitly concerned with politics, a primary theme being social inclusion and exclusion, and subjects considered range from the former Soviet Union to the future of Europe, the rise of the Pacific Rim and the significance of global crime networks. This procedure and prioritization are evocative of Marxist methodology, moving as it does from structural features, on to social forces and finally to political affairs. They provide an organizational framework for *The Information Age*, but – as we shall see later – they also give insight into Castells's views regarding the most important causes of change. The priority goes to matters of economy and technology, after which come matters of consciousness and politics.

A Marxist legacy is also evident in Castells's commitment to a holistic account of the world today. His approach suggests that to explain adequately the workings of the world, the most consequential social, economic and political features should be examined as interrelated elements. This is not to say that Castells presents a functional account of how each part supports an overall operation. Not at all: his approach is one which emphasizes the connectedness of parts, though often these are in contradictory relationships and their very frictional character is an important contributor to change.

Castells's pursuit of the 'big picture', one that provides at once a broad brush and textured portrait of contemporary civilization, is unfashionable. Nowadays 'grand narratives' are regarded with suspicion, enthusiasm reserved for accounts of particularities and differences. More than this, Castells is unafraid to identify the most important features of the world in which we live. In this project he is at one with the Marxist tradition (though he does not necessarily share its priorities) and at odds with Foucaultian post-structuralist thinking (where reference to more or less salient features of a society are readily met with the accusation that these selections are but a reflection of the author's own entrapment in a particular 'discourse'). Hence when Manuel Castells sets out to delineate contours of the network society and how these interconnect, he is swimming against a tide of postmodern orthodoxy.

In the following I set out major elements of Castells's thought as expressed especially in *The Information Age* (see Webster, 1995, ch. 9 for discussion of specifically urban dimensions). This is something of a misrepresentation of his work since it reduces it to a series of abstract and theoretical observations. It cannot be stated too forcefully that an especially impressive quality of Castells's work is its *empirical* materials. This does not mean that he just describes situations, piling up data and description. Castells is theoretically informed, sophisticatedly so, but he prioritizes in his work engagement with evidence. He does not start with a theory that is then obstinately held to in face of facts. Manuel Castells (2000a) advocates 'disposable theory', in large part as a reaction against an overemphasis on abstract theorizing that has so marked social science and the humanities in recent decades. Against this, Castells's work is marked by its inclusion of a remarkable amount of empirical material, drawn from around the world. He presents this evidence in an impressively coherent framework of analysis, whether it concerns the 'wild capitalism' of post-1989 Russia, the inner city ghettos of North America or the intricacies of the European Union, but always he is at pains to incorporate and respond to substantive trends and events.

Continuity/change?

Castells's core argument is that the 'information age' announces 'a new society' (Castells, 2000c, p. 693) which has been brought into being by the development of networks (enabled by computer communications technologies) and which gives priority to information flows. I shall say more about this, but for now would note that Castells does not straightforwardly suggest the arrival of an 'Information Society'. In his view all societies have used information, and hence the term 'Information Society' is of limited analytical value with regard to the distinctiveness of the present era (Castells, 2000d, p. 21).

Castells adopts the concept 'informational capitalism' when describing the present epoch. Both the adjective and the noun here are important. On the one hand, the adjective allows him to draw attention to developments of such import that they mark the arrival of entirely new relationships. Informationalism, a key term to Castells, identifies 'the action of knowledge upon knowledge itself as the main source of productivity' (Castells, 1996, p. 17), and it heralds a 'new economy' as well as a 'new society'. On the other hand, his retention of the noun capitalism lets Castells observe that familiar forms of economic relationships (profit-seeking, private ownership, market principles) prevail. Indeed, he goes further to observe that 'informational capitalism' is an especially unforgiving, even rapacious, form of capitalism because it combines enormous flexibility with global reach (both of which were absent in previous capitalist eras) thanks to network arrangements (Castells, 1998, p. 338).

Theories of the Information Society has distinguished thinkers who emphasize systemic change by evoking the concept of an 'Information Society' and those who contend that continuities from the past are the most telling feature of the present. So where, one might ask, does Castells fit into this schema? He appears to stress at once the profundity of change and simultaneously to emphasize that capitalism persists and that it is even more entrenched than hitherto. At once Castells is recognizing that capitalism plays a lead role in the present period (and this necessarily means that former relationships are perpetuated and even extended), and at the same time he is forwarding the view that fundamental changes have come about because of the establishment of a 'network society' and that these networks are requisites of any future social organization. As he puts it, we have a society that is 'certainly capitalist, but of a new brand of capitalism' (Castells, 2009, p. 33). A tension here between the view that capitalism is the most salient feature of the world today (continuity) and that it is informationalism which is of primary importance (change) runs through the *oeuvre* of Manuel Castells.

Castells (2004a) is conscious of this issue. Thus he rejects as 'a bit pretentious' those who 'label our society an information or knowledge society' because 'I know no society in which information and knowledge have not been absolutely decisive in every aspect of society.' In such a way he unhesitatingly jettisons 'Information Society' concepts. He has even distanced himself from the prioritization of information, so the term 'informational capitalism' has become less prominent in his writing. At the same time Castells plainly states that the emergence of a 'network society' does mark a novel society. Thus 'while we are not in an

Information Society . . . we are in a networked society' and this is a 'fundamental, morphological transformation of society' (Castells, 2004a). Continuity and change sit together somewhat uneasily here.

The network society

Castells argues that we are undergoing a transformation towards an 'information age', the chief characteristic of which is the spread of networks linking people, institutions and countries. There are many consequences of this, but the most telling is that the network society simultaneously heightens divisions while increasing integration of global affairs. Castells's concern is to examine ways in which globalization both brings together people and processes and fragments and disintegrates. This supplies the primary theme of his trilogy.

Castells traces roots of the Information Age to the 1970s, to that period of capitalist crisis I considered in Chapter 5 that marked the end of what has been described as the 'post-war settlement' (full employment, rising living standards, state welfare systems, etc.). This precipitated a period of restructuring of capitalist enterprise, as corporations caught in recession and facing sharper competition than before sought sources of profitability. This restructuring happened to coincide with the appearance of what Castells terms the *informational mode of development*, a phenomenon closely associated with the growth of ICTs.

The restructuring of capitalism was, in key ways, a matter of taking up the new technologies and coming to terms with ICTs, in search of a new means of successful commercial activity. Especially since the 1970s, a renewed form of capitalism – what Castells refers to as 'informational capitalism' – has been that which utilizes information networks to conduct its affairs, from within the factory (with new ways of working) to worldwide marketing. Moreover, this is closely involved with the long-term, ongoing and accelerating process of globalization; so much so that the 'network society' is one in which capitalist activity is conducted in real time around the world, something that is unthinkable without sophisticated ICTs.

For many writers the spread of global information networks heralds the demise of the nation state, since frontiers are irrelevant to electronics flows and, accordingly, marketing, production and distribution are increasingly conducted on a world stage that undermines national boundaries. There is acknowledgement of this tendency in Castells, but still he does not suggest that networks mean the death of the nation state, especially in the sense that national government might be of diminishing importance. The nation state is certainly drawn into the global marketplace, but Castells insists that its role remains important. Chiefly this is because, though global integration is the trend, there is a cognate need for maximum adaptability of participants. Radical and frequent shifts in market situation and opportunity are the order of the day in a world where 'creative chaos . . . characterises the new economy'. To meet this 'relentlessly variable geometry' (Castells, 1996, p. 147), governments are responsible for seizing opportunities (and shouldering blame) depending on circumstances. Thus judicious encouragement

of strategically important research projects, or timely involvement in important contractual negotiations, above all in ensuring good governance, is a vital role of nation states today. Hence they still matter enormously, even if they are compelled to operate in a global maelstrom of information flows.

Castells offers a whirlwind tour of winners and losers in the globally integrated world, highlighting the variability of results in Latin America, the former Soviet Union and the potential of post-apartheid South Africa. His theme here is that the *differences* across this changing world scene, where conventional terms such as North and South confuse rather than clarify, are important things to note, something which demonstrates that appropriate government strategies can make a substantial difference in this new world. Effective government actions steered the likes of Japan and Singapore towards success, while the 'predatory states' of much of Africa pushed nations such as Zaire and Uganda to the margins of the global network society, condemning them to eke out an existence by 'the political economy of begging' (Castells, 1998, p. 114).

The international division of labour may be variable, but the general direction is evident, and it leads towards four forms (Castells, 1996, p. 147); namely, those areas divided into:

- producers of *high value* (based on informational labour), which are concentrated in North America, Western Europe and Japan;
- producers of *high volume* (based on lower-cost labour), where China is especially important;
- producers of *raw materials* (based on natural resources), where oil and gas supplies are crucial;
- *redundant producers* (that are reduced to devalued labour), where there is little capital, few resources, unstable government and poor infrastructure.

The network enterprise

We have now entered a new epoch that is a network society that has emerged from the coalescence of capitalism and the 'information revolution'. Castells believes that this is not just a matter of globalization, important though that is. It has also profoundly changed organizational forms, since with the global integration that has come from the growth of networks has come about a *de-bureaucratization* of affairs. What is suggested is that, even where the corporation is a transnational giant, hierarchies are being pulled down, and power shifting to the real movers and shakers, those information workers who operate on the networks, fixing deals here and there, working on a project that finds a market niche, owing more commitment to people like themselves than to the particular company which happens to employ them for the time being.

Castells is not blind to the presence of transnational corporations in this network society, but his assertion is that they, like everyone else, are profoundly threatened by it, so much so that they must themselves change or risk collapse. In consequence, claims Castells, transnational corporations are moving from being

vertically integrated to being so disintegrated as to transform into the *horizontal corporation* (Castells, 1996, p. 166). He argues that, because in a network society speed of response and adaptability in a global market are at a premium, what count above all else are networks. In turn, however centralized and hierarchically arranged the corporation might appear in a formal sense, what delivers products and services on time and at a favourable price is the networks that are made and constantly remade by the players inside or outside the company. In short, what we have is the 'transformation of corporations into networks' (p. 115), where strategic alliances are made and abandoned depending on particular circumstances and participants, and where what Toyota management thinkers call the 'five zeros' (zero defect, zero mischief (i.e. zero technical faults), zero delay, zero paperwork and zero inventory) are the recipe for success.

Castells's suggestion is that, even if transnational corporations continue to exist, they have been dramatically changed. Gone are the days of a global empire planned and operated by centralized command from the metropolitan centre. In the information economy 'the large corporation . . . is not, and will no longer be, self-contained and self-sufficient' (1996, p. 163). Instead it must devolve power to those with access to the network of 'self-programmed, self-directed units based on decentralisation, participation, and co-ordination' (p. 166). In such ways the 'globalisation of competition dissolves the large corporation in a web of multidirectional networks' (p. 193).

There is an echo of post-Fordist theory in all of this and the post-Fordist mantra 'flexibility' is repeated throughout Castells's books. While Castells rarely refers explicitly to Fordist literature, he has suggested (Castells, 2000b) that today's paradigmatic corporation is Cisco, a company whose web site is the locus of its business and through which 80 per cent of its business is conducted. For Castells (2000e), while the Ford company's huge manufacturing plants, standardized production and top-down management structures epitomized the era of industrial capitalism, the Cisco corporation is the archetypical 'network enterprise' of the Information Age (pp. 180–4).

This is *au courant* with management theory and can be read about regularly in the pages of the *Financial Times* and in the columns written by Tom Friedman for the *New York Times*. To be sure, the global economy is fast-moving, unstable and risky to pretty well everyone, a condition that owes much to the processes of globalization that have brought once relatively immune (by virtue of their protected domestic markets) corporate players into fierce competition on a world scale. But what Castells is postulating is something at once much simpler and more profound. He baldly states that 'the logic of the network is more powerful than the powers in the network' (Castells, 1996, p. 193), a gnomic phrase that translates into saying that ICTs have reduced the effectiveness of global corporations and dramatically empowered those people and organizations who are entrepreneurial and effective in terms of networking. These people may actually be employed inside corporations, yet the new technologies have brought about the devolution of power from their employers to the network players.

Castells (1996) goes on to extol what he calls the 'spirit of informationalism' (p. 195). Here he borrows from Max Weber's famous argument that there was in

Calvinist theology an ‘elective affinity’ with the development of capitalism – the ‘Protestant ethic’ gelled with the ‘spirit of capitalism’ – to suggest a comparable element in operation today. Capitalism is still around, but ‘in new, profoundly modified forms’ (p. 198), at the core of which is this ‘spirit of informationalism’. Castells’s depiction of this ‘spirit of informationalism’ evokes an image of those participants in cyberspace who are at ease with information exchanges, are well connected, and are so effectively networked that they may seize the day. He notes the capacity of network decisions to radically transform lives and events across the world in waves of ‘creative destruction’ (to use Schumpeter’s terms).

It must follow, he asserts, that those who make such decisions are a new type of person, answerable not even to their employers, and always open to those with the talent to network. It is not surprising, then, that Castells ends in describing this new state of affairs as being where ‘Schumpeter meets Weber in the cyberspace of the network enterprise’ (p. 199), names which conjure a heady mix of tumultuous change, creativity and personal drive. Castells’s co-author, Pekka Himanen (2001), has extended this thesis to suggest that a ‘hacker ethic’ is evident today, being a combination of adventure and lawlessness in which the motivated work for the hell of it.

Castells also pays considerable attention to changes in work practices and employment patterns. The conclusion of a lengthy definitional and statistical tour is that, in the view of Castells, information work has massively increased throughout society, that in the round it is more satisfying than the labour that was available in the past, that it is much more individuated than previously, and that the changed circumstances of the ‘network society’ mean that people must get used to being ‘flexible’ in what they do and in what they expect to be doing in the future if they are to survive amid the ‘systemic volatility’ of informational capitalism.

Cultural consequences of informational capitalism

Midway through, *The Rise of the Network Society* reflects on the cultural consequences of technological change, a subject he gives book-length attention in his later study *Communication Power* (2009). In *The Information Age* trilogy Castells does not worry much about the content of the emerging network (the usual anxieties about pornography, violent imagery, political extremism, etc.). He detects deeper consequences of new technologies, tapping the legacy of Marshall McLuhan for his insight that television announced the end of print and its supersession by a new cultural form. The argument is that, just as a vital thing about television in politics today is less the particulars of coverage but that to be a participant in politics one must be *on* the television, so the most pressing thing about the network society is not what gets said on it, but the fact of having *access* to the network itself. If you are not on the network, attests Castells, you will not be able to play a part in the network society, hence you will be irretrievably marginalized.

Furthermore, computer networks portend the end of the mass communication system that was television (a centralized production system transmitting to a homogenized audience). The network society is different because it individuates

audiences (thereby offering heterogeneity) and allows them to interact with others who also have access. This latter can empower those formerly denied access to media, a radical transformation that allows what Castells (2009) has come to call 'mass self communication', though without access to the network this prospect is nugatory and, indeed, to be denied access is to experience an especially severe form of social exclusion. The cultural effect of most weight, therefore, is the issue of being networked, so one may be able to access and produce information, interacting with whomsoever, whensoever, one needs. A popular description for this is the end of the consumer of media and the emergence of the *prosumer*, who creates and receives content.

Castells is concerned about some of the technological developments that have preceded the spread of the internet, since they can increase social fragmentation, something that recurs throughout his work. For instance, cable and satellite television have developed in ways that target audiences to receive a pre-selected diet of programmes, dividing those who watch, for instance, Sky Sports from those drawn to rock music channels. This is why Castells, in an inversion of McLuhan's well-known aphorism, refers to such things as the 'message is the medium', since what they transmit is dependent on the perceived requirements of segmented audiences. This all happens alongside the global concentration of television resources, dramatically evidenced in Murdoch's News Corporation, which yet can supply customized and even diversified programmes and channels to market-appelling and disparate audiences. Castells is also apprehensive about an increase in home-centredness that accompanies the introduction of these technologies, especially where they are driven by entertainment interests. Nevertheless, and paradoxically, this very spread of consumer (brand) culture alongside corporate concentration can result in more diversified – if entertainment-led – programming, since 'while capital is global; identities are local or national' (Castells, 2009, p. 72).

However, there are countertrends operating here. To Castells (1996) the internet possesses 'technologically and culturally embedded properties of interactivity and individualisation' (p. 358) that connect rather than divide people and that can contribute to more diversity of content. Castells even envisages that the 'Internet will expand as an electronic agora' (p. 357) to announce an 'interactive society' (p. 358). The consequences of these developments are multilayered, 'in spite of the growing concentration of power, capital and production in the global communication system, the actual content and format of communication practices are increasingly diversified' (Castells, 2009, p. 136). There is much to play for in this emergent situation because effects will be varied and even contradictory.

In a second edition of *The Rise of the Network Society* (2000d) Castells tempered some earlier optimism, acknowledging the 'mediocre materialisation' which opposes the 'noble goals' of the new technologies (p. 398). He even acknowledged 'electronic autism' as an apt descriptor of much blogging (Castells, 2009, p. 66). One may use e-mail and the internet routinely, and it is very helpful to contact people with whom one shares interests, but it is often not much more than a convenient and usually abbreviated form of letter writing and a means of locating the nearest dry-cleaning outlet. Any genuine sense of community, the return of which courtesy of ICTs is a favoured theme among futurists, cannot be a matter of such

restricted communication, since it involves connecting with *whole* people rather than the specific 'bits' which are what constitutes a good deal of virtual relations (a musician's bulletin board, a professional listing, a business communication, an electronic purchase) that can be easily disposed of when interest wanes (Talbot, 1995). Indeed, there is something disturbing about online relationships with others that can be abandoned at the touch of a keyboard. Such superficial, non-disturbing and self-centred links scarcely merit the term community, which, if nothing else, involves encountering others in real places and real times. Real community can of course confirm one's opinions and bolster prejudices, but it can also challenge conduct and convictions without prospect of electronic evasion (Gray, 1997).

One-time enthusiast about the promise of the PC to help expand the horizons of the self, psychotherapist and scholar Sherry Turkle (2010), after years of reflection on her clients, is now hesitant. She sees the internet as bringing about a situation of 'alone together', where family members may sit close at mealtimes, but each is isolated and insulated inside their private electronic networks. They may be linked in to their virtual friends through Facebook and avidly texting comments on schoolwork, but oblivious to siblings and parents sitting right by their sides.

Turkle's description of what she found among her American subjects is provocative, but her study is considerably more delimited than Castells's project. It is likely that he would concede her findings, but remind us too of the multilayered character of the network society, such that one can have, simultaneously, *more* individualization and *more* diversity of information and *more* engagement with others in the virtual realm. The cultural consequences of the internet are multidimensional and complicated and remain uncertain.

Continuing the McLuhanite legacy, Castells argues that 'the price to pay for inclusion in the system is to adapt to its logic, to its language, to its points of entry, to its encoding and decoding' (Castells, 1996, p. 374). Castells believes that the cultural effects of ICTs are of utmost consequence. He writes of 'real virtuality' to capture the amalgamation of text, audio and visual forms that multimedia entail and life in a 'network society' means. He suggests that, strung out on the network, even where we are interactive with others, the media are all the reality we experience. Thus it is a system in which 'reality itself . . . is entirely captured, fully immersed in a virtual image setting, in the world of make believe, in which appearances are not just on the screen through which experience is communicated, but they become the experience' (Castells, 1996, p. 373). There is something in this argument that mediation of life is now pervasive, such that experience is in very large part through technologies. Our knowledge of places, people and events is decidedly of this character.

Castells illustrates this novel cultural condition by describing an amalgam of television soap and political issues with reference to a Dan Quayle experience. During the 1992 election campaign the then US Vice-President used a character from a soap opera to illustrate his argument for 'family values'. After Quayle's speech the soap retorted by including an item about his intervention in the next episode. Fact and fiction seemingly blur here, something that Castells suggests as an instance of the 'real virtuality' that is a product of new media. In my view this is an unconvincing case for persuading us that a novel situation has come upon us.

Not far off two hundred years ago Charles Dickens did much the same thing in serialized stories such as *Oliver Twist* and the *Pickwick Papers*, and large parts of everyday experience involve drawing on fictional characterizations to explore the real ('He's a bit of a Scrooge', 'No Podsnappery here', 'He's a real Uriah'). Fiction supplies us with a good deal of ways of talking about social reality and thereby may blur apparently sharp distinctions between fact and fable. It has done so for years, certainly long before the spread of multimedia and even before television. These new forms of culture offer similar representations that may or may not be adopted, but we may be confident that most people will not have too much trouble distinguishing the literal from the literary (Slouka, 1995).

The space of flows

Castells's ideas on 'the space of flows' will be familiar to readers of his earlier *The Informational City* (1989). In *The Information Age* he restates his distinction between the 'space of places' and the 'space of flows', and puts the emphasis in the network society on the latter. With information flows becoming central to the organization of today's society, disparate and far-flung places can become 'integrated in international networks that link up their most dynamic sectors' (Castells, 1996, p. 381). Castells emphasizes his argument that regions and localities do matter, but suggests that we are experiencing now a 'geographical discontinuity' (p. 393) which throws established relations out of kilter. New 'milieu of innovation' will determine how particular places prosper or decline, but all will be integrated into the 'network society'.

Cities, especially those which act as 'nodal points' of the wider network, take on an especial importance and manifest particular characteristics. Insisting that the 'global city is not a place, but a process' (Castells, 1996, p. 386) through which information flows, Castells maintains that megacities (such as Tokyo and Mumbai) are 'development engines' (p. 409) that are at once 'globally connected and locally disconnected, physically and socially' (p. 404), a feature obvious to any but the most casual visitor. Castells includes an intriguing discussion of the 'dominant managerial elites' (p. 415) who play a key role in the networks. They are cosmopolitan and yet must retain local connections to ensure their coherence as a group, a force for serious psychological tension. These people have global links and lifestyles (similar sorts of hotels, similar pastimes) and characteristically they separate themselves within the cities they inhabit, frequently using advanced technological systems to insulate themselves from the 'dangerous classes' nearby. Despite their elite standing and global connections, Castells cannot bring himself to describe these people as a class. On the contrary, he concludes that there is 'no such thing as a global capitalist class', though there is a 'faceless collective capitalist' (p. 474), of which more below (pp. 122–3).

Timeless time

When he introduces the concept of 'timeless time' Castells takes up arguments about time–space compression in the modern world to emphasize that the

network society endeavours to create a 'forever universe' in which limits of time are pushed further and further back. Castells shows that time is constantly manipulated by 'electronically managed global capital markets' (1996, p. 437) and, related, how work time is increasingly acted upon ('flexitime') in order to maximize its most effective use.

In addition, the network society induces a 'blurring of lifestyles' (Castells, 1996, p. 445) in which there is a characteristic 'breaking down of rhythmicity' (p. 446) such that biological stages of life are manipulated. Thus we have 50-year-old women bearing children alongside attempts (cryogenics and suchlike) even to 'erase death from life' (p. 454), regular assertions that 'sixty is the new forty' and talk of 'sexy' eight-year-olds, alongside resistance to ageing through exercise regimes, drugs and cosmetic surgery. We come here to consideration of genetic engineering breakthroughs, which Castells links to information and communication matters: both contribute to the promotion of a culture of timelessness.

Castells identifies 'instant wars' as those fought in short decisive bursts by the powers that command the most advanced technologies, and which are presented around the world in global media. Most people are aware of the development of Information War (Tumber and Webster, 2006), certainly after the Iraq assaults in 1991 and 2003, the crushing of Serbia in 1999 by NATO forces, and the speedy invasion and overthrow of the Taliban theocracy in Afghanistan late in 2001 (the latter was followed by over a decade of morale-sapping resistance by locals who were able to inflict casualties on occupying NATO troops with suicide attacks and roadside bombs, characteristic weapons of the weak in asymmetrical warfare).

However, Castells makes more of the end of conventional war than this. He reminds us that participation in war, for people in Europe at least, was a *rite de passage* for much of history, something he argues provided an unforgettable reminder of one's own mortality while serving afterwards always as a point of reference for those who survived. That has now gone, and bolsters too the cult of 'timeless time', leaving us living in a permanent present. In addition, Castells (1996) discerns in the network society an emphasis on instant communication, such that we gather information almost immediately from around the globe, which is presented to us in hypermedia forms that raid history without offering historical context, so much so that we are exposed to a 'no-time mental landscape' (p. 463). All comes together in a culture of the network society that induces 'systemic perturbation' (p. 464), a constant instantaneity, lack of continuity, and spontaneity.

Identity and social movements

Volume 2 of *The Information Age* switches attention away from the construction of the network society towards a concern for collective identities. How do people see themselves? How do they mobilize in their perceived interests? How do they envisage their lives now and in the future? Castells's focus is with shared identities, not just an individual's, since his reasoning is that collective identities continue to matter enormously. The central subject here is *social movements*, by which Castells (1997a) means 'purposive collective actions [which] transform the values and

institutions of society' (p. 3), and which provide people with central elements of their identity. In other words, this book's concern is with the politics and sociology of life in the contemporary world.

The core argument is concerned with how identities are to be made when traditions are being challenged. Castells suggests, for instance, that nation states and their associated legitimizing institutions (notably welfare provision such as health provision and pensions) are being destabilized. He evokes a period during which some sort of stability was achieved on the basis of a settlement between various forces inside nation states. Unions struck bargains with employers, governments acted with effect on the national economy and, above all, welfare measures – schools, hospitals, housing, etc. – made more acceptable market relationships. In this milieu people received and built identities: with the nation, within the class system, with institutions that reflected 'our ways of life'.

However, now the globalizing and highly competitive network society upends much of this. Thus the Welfare State is threatened everywhere by pressures to reduce public expenditures (and thereby taxation), the national economy is exceedingly difficult to control in an era of real-time and continuous trading in the yen, the dollar and the euro, and political democracy itself is denuded by the growth of 'informational politics' which are mediated by information and communications media that are global, irreverent and drawn to focus on scandal. The labour movement, traditionally concerned with nationally based issues and once able to negotiate a *modus vivendi* that made capitalism palatable to the many, finds itself profoundly weakened in a world of global competition and instant movement of capital. Once cherished benefits such as occupational pensions, job security and agreed pay rates now appear fragile and tenuous.

In an interesting aside, Castells suggests that the nation state cannot even harness the new technologies to effectively monitor and control its populations, since states are themselves subverted by the emergence of semi-autonomous regions (and even by cities), citizens connect with others thousands of miles away with ease, and a global, but differentiated, media is somewhere exposing the machinations of politicians. Consider, for instance, the rise(s) and fall(s) of Silvio Berlusconi, Italy's longest-serving Prime Minister. Berlusconi first became Prime Minister in 1994 as leader of his conservative party, Forze Italia. Before this – but continuing through his leadership – he created a large media holding, Mediaset, that is the largest commercial broadcaster in Italy, with three networks that gave Berlusconi command over the overwhelming majority of Italian broadcast television, which he harnessed (along with his substantial interest in advertising and PR) to promote his politics. In spite of these formidable resources, Berlusconi has faced repeated exposures and criminal investigations, ranging from tax evasion convictions to charges of having sex with under-aged girls, from alleged mafia connections to bribery of police officers and judges, from money laundering to soliciting minors for prostitution (the so-called RubyGate affair). His first administration was plagued by investigations into accusations of corruption. Despite this scandal Berlusconi returned as Prime Minister in 2001, 2008 and again in 2011, latterly with his new party, the People of Freedom. But he has been continually pursued by investigations into his affairs and disclosures about his flamboyant sex

life which his own media empire can do relatively little to stem. Late in 2012 he was sentenced to four years imprisonment (later shortened to one year) for tax evasion (he is appealing); a further twelve months was awarded in 2013 for his leaking to a newspaper, owned by his brother, the contents of an illegal phone tap he had arranged concerning a political rival and related to a 2005 banking scandal; and his trial on charges of having sex with a juvenile continues, one that carries a heavy custodial sentence. Outside his native land Mr Berlusconi is widely regarded as a sex-addicted and corrupt buffoon, in the words of the pro-business *Economist* (2011), 'a disastrous, even malign, failure'. Domestically, he commands a massive media business, yet still there is opposition. Beyond Italy's shores, he is manna to a media industry that thrives on sex and scandal. Those who have fears about an Orwellian state coming into being with the spread of network technologies, with developments interpreted as the coming of 'Big Brother', might look at Italy and perhaps fear more Castells's (1997a) prognosis: 'Our societies are not orderly prisons, but disorderly jungles' (p. 300). This may be a less chilling vista than one in which citizens are relentlessly 'watched', but here we may see that everything is rootless and uncertain, traditions broken apart, former certainties lost forever (cf. Lyon, 2007, 2009).

Castells reasons that identities are forged in actions, thus the 'network society' induces movements of *resistance* and even of *project* identities. We are then launched into an analysis of resistance movements of various kinds (from Mexican *zapatistas* to the neo-fascist Patriots in the United States, from Japanese fanatics in the Aum Shinrikyo to religious fundamentalism in versions of Islam, from ethnic nationalism in the former Soviet Union to territorial struggles in places like Catalonia). Castells offers neither approval nor disapproval of these reactive movements, but sees in them evidence of the formation of collective identities in face of enormous new and heightened pressures.

Illustratively, Castells details the project-oriented movements of environmentalism and feminism, the influence of which has already been enormous, but will surely continue to tell. Note, too, that these movements cannot be considered simply as reactions to the stresses and strains of the 'information age', since they all themselves adopt and take advantage of the facilities available in the network society, to aid organization and the dissemination of their views. They campaign locally, but such social movements are adept at use of ICTs and transnational in their outlook, orientation and connections.

Castells's analysis on feminism demonstrates that patriarchy, for centuries the norm in human society, is ineluctably on the wane, for at least four reasons. First, there is the fact of women's increasing participation in the labour force, something closely connected to the spread of information work and the emphasis the network society places on 'flexibility'. Second is the increasing control over their biologies that is most evident in genetic engineering of one sort or another, freeing women from the restrictions of reproduction. Third, of course, is the feminist movement in all its diverse forms. And fourth is the spread of ICTs which enable the construction of a 'hyperquilt of women's voices throughout most of the planet' (Castells, 1996, p. 137). Combined, these forces are extraordinary, challenging sexual norms that have continued for centuries and thereby 'undermining . . . the

heterosexual norm' in intimate as well as in public domains. Castells refers to 'practical feminists' (p. 200) around the world who are acting to change their lives, and in the struggles developing new identities as they bring about the 'degendering [of] the institutions of society' (p. 202).

Mediation

In his more recent books, *Communication Power* (2009) and *Networks of Outrage and Hope* (2012), Manuel Castells has extended his study of social movements and moved analysis of mediation more to the centre of his concerns. The latter book is more closely concerned with resistance movements, focused on the Arab Spring, the Occupy movements and anti-Austerity protest. It is an analysis produced at speed, sure to date quickly, yet full of insights that are consonant with his general approach to the network society.

Communication Power is the more scholarly and ambitious. It takes us into the burgeoning field of media, where Castells's scholarship is certain to have a large influence. The book addresses politics in the present era and, as such, has a good deal to say about campaigning in general. Its central concern is with power, how it is developed and effected. Castells observes that there has been a transition from power enforcement by coercion to implementation by persuasion; hence the means of persuasion – media broadly conceived – are of pressing importance in examination of power relations. *Communication Power* is situated in his general conception of networks, with full acknowledgement that we now inhabit a mediated world wherein which politics is played out. Baldly, in the network society 'politics is primarily media politics' (Castells, 2009, p. 194). Indeed, he reiterates that politics that is not engaged in the media process is doomed to marginality. This means, necessarily, that politics and political activity must be thoroughly symbolic in this day and age.

For Manuel Castells the central concern is with the dynamics of resistance and domination, recognizing from the outset that power is not all one way. Nowadays that means the power of persuasion cannot be taken for granted since it almost always meets with counter-information and dissent. Stating this, Castells underlines his view that, while vertical relations persist (the powers that be can still issue edicts from on high), more horizontal relations are also in evidence. In the case of politics this means that, while established corporate and state interests adopt all manner of ways in which they may professionalize their activities (PR, the judicious leak, the sound bite, the photo-opportunity, the grooming of candidates . . .) the better to persuade, there are also counter-forces likely to upset the operation. A significant one is an institutionalized media that has an abiding interest in scandal, not least because it is highly newsworthy and aids sales (Thompson, 2000).

There are at least two factors in play here. The first is that audiences do not straightforwardly absorb messages. Instead, they interpret them, bringing to them values and meanings gleaned elsewhere. This is a truism of media research, but Castells (2009) goes further than endorsing 'active audience' theory, to conceive of a 'creative audience' (p. 132) that not only interprets what it receives, but also

can interact with those messages to challenge, expand, reject or embrace. Advancing this view, Castells writes extensively on the obstacles faced by those setting out to persuade audiences. The commonsense notion that an argument is won by the party that marshals the strongest evidence is deemed false. Facts are not enough and nor are rhetorical skills, because audiences selectively perceive, drawing on deeply held emotions that have been established early in life. Castells suggest that this primacy of *feelings* among media receivers is the starting point for any campaigner hoping for success, since trust in candidates and spokespeople and tapping deeply felt values and beliefs are the most telling factors. Thus personality, emotions and character are crucial factors, overriding substantive matters.

The second factor involves the growth and extension of the internet while also drawing on features of the creative audience. This allows what Castells terms 'mass self communication', the ability to send from small groups and even individuals messages that potentially reach large audiences or combine to constitute a potent force. Think, for instance, of the April 2013 funeral of Baroness Margaret Thatcher. On her death, as with most long-term Prime Ministers in Britain, there was due solemnity and homage given by politicians and media. It is beyond doubt that Thatcher was a strong and determined leader throughout her Prime Ministership (1979–91). However, the organization of a ceremonial funeral with military honours (a *de facto* state funeral because of the scale of the ceremonial involved, especially with royal attendance), paid for by the government, appeared to suggest that as national leader she was a unifying figure. The only Prime Minister in Britain to have been awarded a state funeral in the twentieth century was Sir Winston Churchill in early 1965, the uniqueness of the event testimony to his singular leadership through the Second World War when the fate of the entire country really was in jeopardy. Very quickly Twitter comments began to question the appropriateness of a comparable honour for Baroness Thatcher. Negative comments soon were trending: many observing that the code name 'True Blue' suggested that the funeral would be laden with Conservative Party propaganda, others criticizing the cost to the taxpayer (estimates of £10 million were suggested), but many more recalled her divisiveness, victims of her policies (notably the industrial North) and her part in the deregulation of the City of London that led to the 2008 financial crisis. A Twitter campaign resulted in a song from the *Wizard of Oz*, 'Ding, Dong! The Witch Is Dead', climbing to number two in the singles chart for downloads. These misgivings, now in a public domain, were picked up and acknowledged on the television news and in some newspapers. The funeral went ahead, with assurances that the Thatcher family would make a contribution to the costs, but it was accompanied by protesters (despite heavy policing and apprehension among some would-be attendees) and any thought that Mrs Thatcher and her fierce pro-market policies might be presented as acceptable to all was dismissed. It is likely that there would have been objections anyway, but the adroitness of the internet meant that dispersed individuals created a 'voice' that rapidly shaped discussion and more mainstream media coverage.

This sort of development, evident in blogs, web sites, email and the like, can empower what might appear initially to be weak movements since access to the

symbolic domain is much easier than ever before and once fragmented voices can come together. In this way the internet enables the emergence of horizontal forms of power that can respond to messages from more hierarchical institutionalized forces, and even initiate them. For example, in times of conflict, state institutions are well practised and prepared for 'winning the information war', yet they cannot guarantee their own messages will persuade, since other institutional outlets may not be entirely onside (there is characteristically some autonomy of news service, essential for them to maintain credibility) and we may be sure that anti-war activists will be ready with their counter-materials to challenge the military perspective and inject their own stories (Gillan *et al.*, 2008).

New forms of stratification

Castells suggests that the network society overturns previous forms of stratification, bringing in its wake new types of inequality. I have already observed his arguments about the development of the horizontal corporation that may be bad news for the bureaucrat, but which empowers those left behind, and his argument that, on a global scale, the information age brings capitalism that is systemic yet lacking a guiding capitalist class. It is worth saying more about stratification under informational capitalism, so profound are its expressions and its consequences. With the coming of these new forms of stratification come changes in power relations, the allocation of resources and prospects for the future. Above all, the divide between labour and capital, the division that underpinned political allegiances (and much else) until the closing years of the twentieth century, has apparently been destroyed.

In place of capitalism directed by a ruling class we now have capitalism *without* a capitalist class. Network-oriented and adept 'informational labour' is responsible for running capitalism nowadays. This group has become the key force in society, responsible for just about everything from designing technology to managing corporate change and agitating for legislative reform. Conjure, for instances of this group, the money-exchange dealer in the City of London, the corporate lawyer ensuring intellectual property rights are duly accorded, the high-level accountant advising companies how to minimize their tax liabilities, the venture capitalist ranging far and wide searching for lucrative deals, the research scientist working with a multinational team on pharmaceutical products, the chief executive whose qualities of leadership are accrued across countries and employers . . . However varied in particulars, such characters share elite educational qualifications, excellent networking abilities and proven achievements in a variety of domains.

In turn, manual workers (termed 'generic labour' by Castells) are increasingly redundant and ill at ease in informational capitalism. They are constantly threatened by their own rigidity, which leaves them unable to cope with change, as well as by informational labour, which, as the innovative and wealth-producing force, frequently finds itself imposing change on them. This generic labour, typically male, represents what sociologists (and others) used to refer to as the 'working class', whose days, accordingly, are numbered. Further, a crucial social cleavage

concerns those pushed to the margins of informational capitalism – the unskilled and educationally ill prepared. At best, they find low-level and insecure employment, and at worst they occupy the fringes of organized crime.

As these new divisions develop, established forms of mobilization are undermined. With the old stratification system transformed, class politics become outdated and are superseded by social movements that are better able to engage with the changed circumstances of a network society and the lifestyle and identity politics that characterize the present era. Leaders of these new movements also possess the media and organizational skills necessary for effective mobilization in the information age.

Though Manuel Castells is reluctant to present his analysis directly in relation to other contemporary social thinking (the likes of Anthony Giddens, Ulrich Beck and Daniel Bell get only passing mention), it is clear that his views are consonant with a good deal of their writing. More specifically, Castells's emphasis on a profoundly changed stratification system, especially his concern with the centrality of well-educated informational labour, and his stress on new forms of political mobilization that transcend former class divisions, encapsulates a spectrum of beliefs that 'new times' are upon us.

The demise of the working class

Castells foresees the end of the traditional working class in two ways. First of all, this class, once the anchor of all radical political movements, is numerically in decline and being replaced by a non-manual, increasingly female, workforce. Second, its contribution to society has been taken away: the labour theory of value should be replaced with an information (or knowledge) theory of value. In Castells's (1997a) words, 'knowledge and information are the essential materials of the new production process, and education is the key quality of labour, [so] the new producers of informational capitalism are those knowledge generators and information processors whose contribution is most valuable to the . . . economy' (p. 345).

While in the past the working class was subordinate to the owners of capital, it was widely accepted that it was still indispensable. After all, miners, factory operatives and farm workers were needed if coal was to be won, assembly lines to run and food to be produced. This essential contribution of the working class is what underlies the labour theory of value and the strong theme of 'inheritor' politics in socialism – the idea that 'the working class create the wealth and one day they will reap their just rewards'. Nowadays, however, this is not so. A new class – informational labour – has emerged which makes the old working class disposable. Informational labour acts on generic labour in ways that make abundantly clear who is most important to society. It does this in diverse ways, perhaps by automating generic labour out of existence (by using computerized technologies), or by transferring production to other parts of the world (readily done by planners with access to high technology), or by creating a new product towards which generic labour, being fixed and rigid, is incapable of adjusting.

In the new world, informational labour is the prime creator of wealth, while the working class is in terminal decline because it cannot change fast enough to keep pace. In current parlance, it lacks 'flexibility'. As a result, politics is shifting away from class (which was, anyway, hopelessly mired in the nation state, another reason why the working class is impotent in a globalized world) towards social movements such as feminism, ethnicity and environmentalism. These movements reach far beyond traditional class allegiances and appeal to the lifestyles and identities of supporters. They, too, are noticeably infiltrated by information labour of one sort or another. Consider, for example, Amnesty International, Greenpeace or Friends of the Earth, each with global reach, computerized membership lists and extensive networks of highly educated, scientifically trained and media-conscious staff and supporters.

Further, while Castells emphasizes that informational capitalism is extraordinarily powerful and pervasive, especially in the ways in which it inhibits actions that are inimical to market practices, he is also insistent that there is no longer an identifiable capitalist class. Since capitalism has gone global, individual states have radically reduced options for manoeuvre, most obviously in terms of national economic strategies. This is not to say that government actions are insignificant – actually quite the reverse, since inappropriate steps bring especially rapid responses from the world economy. However, we would be mistaken to think that there is a capitalist class controlling this world system. There is, states Castells, a 'faceless collective capitalist' (1996, p. 474), but this is something beyond a particular class. What one imagines by this is that, for example, constant trading on world stock markets or in foreign currencies means there is scarcely room to opt out of the mainstream of capitalist enterprise. Yet the functionaries of this system are not propertied capitalists; rather, it is informational workers who are the prime players. This scenario suggests that it is the accountants, systems analysts, financiers, account investors, advertisers, etc. who run capitalism today. He insists, however, that there are no 'grand designers' around, since the system has its own inbuilt momentum, the network being greater than any single or even organized group. Moreover, it must be stressed that these people are where they are not because they are property owners, but by virtue of their expertise. They will be diverse, ranging from high-level mathematical competences in some to first-class imaginative capabilities in others, from expert physicists to innovative deal-makers. Nonetheless, all possess demonstrable and, for the more senior, achieved expertise in their separate fields. They are information workers of one sort or another, and as such they announce the end of both the old-fashioned propertied class and the working class.

Finally, we have the unskilled and/or irrelevant to informational capitalism, those whom Castells refers to as the 'fourth world' and who have no part to play because they lack resources of capital and/or skills that might make them appeal to globalized capitalism. Here he writes evocatively about the ghettoized poor in the United States, those mired in the underclass living cheek by jowl alongside the informational labour that is so central to the new world system, and often working in unenviable circumstances as waiters, nannies, janitors and servants of this new class. Castells notes the fear that generic labour may, in the longer term, sink into this underclass if its members cannot come to terms with the flexible demands of the new economy.

To sum up: Castells considers that the stratification system has been radically transformed by informational capitalism. Above all, this is manifested in the emergence of the 30 per cent of the occupational structure of OECD countries accounted for by informational labour. In an argument which echoes a great deal of current thinking, from the enthusiasm of Robert Reich (1991) for 'symbolic analysts', through Peter Drucker's (1993) belief that 'knowledge experts' are now the 'central resource' of capitalism, to Alvin Toffler's (1990) identification of the centrality of the 'cognitariat' in the 'knowledge society', Castells contends that informational labour is that range of jobs which generates change, holds together the new economy, and generally does the thinking, conceiving, planning and operationalizing required by informational capitalism.

Informational labour is thus the glue bonding informational capitalism together. As already noted, it has usurped old-style capitalist classes since ownership of capital is no longer sufficient to make headway in today's world. Those who run companies must be equipped with the informational skills that allow them to remain viable in face of enormous uncertainty and constant change. Sitting on a pile of stock is no longer enough because without the informational labour to keep pace it will be lost. Accordingly, those information occupations which manifest abilities to analyse, plot strategy, communicate effectively and identify opportunities are a priority, and, as such, they move to the core of capitalist enterprise.

Specific skills, of course, matter, but they are less important to these people than the overriding skill of adaptability. That is, they are 'self-programmable', able to train and retrain wherever necessary. This makes them especially suited to survival in the fast-paced and dauntingly 'flexible' world of informational capitalism. Gone are the days of permanent and secure employment in the large bureaucracy, this having been replaced by contract work for the duration of the particular project. This frightens many, but not informational labour, since it eagerly adapts to 'portfolio' careers in which capability is demonstrated by a record of achievement on a range of jobs (Brown and Scase, 1994). Old values, such as loyalty to a particular company, are increasingly things of the past. These nomads happily move to and from projects, drawing on their network contacts rather than the corporate hierarchy for the next deal. They do not seek security of tenure, but rather the excitement and challenge of the latest development in their field. Indispensable, but not especially attached to the company, such workers sign up for a 'project', then happily go their way. Think of the freelance journalist able to turn a hand to pretty well any piece of reportage; the software engineer who is devoted to the particular piece of programming he or she is developing and connected to perhaps a few hundred like-minded people around the globe; or the professor whose allegiance is to his or her peers rather than any particular institution.

One cannot escape the contrast with generic labour. While the latter is fixed and rigid, yearning for job security and able to perform the same tasks day after day that were learned in early training, informational labour is able to navigate, and is even eager for, change. Informational labour is nowadays the prime source of wealth, whether busy making tradable services in accountancy, engaged in 'knowledge-intensive' businesses such as software engineering and biotechnology,

designing fashionable clothes, making appealing advertisements or simply conceiving a more cost-effective way of delivering products.

Meritocracy

This promotion of the category informational labour carries with it a strong echo of the idea of meritocracy, where success hinges not on inherited advantage but on ability *plus* effort in the educational system. Informational labour, even if it is not discipline specific, does seem to require possession of high-level education. In universities there has been considerable interest in inculcating 'transferable skills' in students so that graduates might be able to offer what appeals to employers: communicative abilities, team working, problem-solving capability, adaptability, commitment to 'lifelong learning' and so forth. It can be no accident that the age participant ratio in higher education is now in all advanced capitalist countries around 30 per cent and rising.

Castells's treatment of the theme of informational labour reminds us of meritocracy because of its insistence that success in the occupational structure requires not (inherited) economic capital, but informational abilities, most of which are the sort of things students gain from a university education. In so far as employees enter the elite arena of informational labour they must have the credentials that come from a university degree (though, for continued success, they will need to acquire an impressive track record). Castells endorses a meritocratic principle in so far as he insists that capitalism today is led by those with informational capital, while possession of economic capital is no longer sufficient to control the levers of power. Unavoidably, then, the gates are opened for those who attain academic credentials, and then continue to build an impressive portfolio. Conversely, they are closed to those who, no matter how advantaged their origins, are incapable of achieving the qualifications to be an informational worker.

A correlate of this position is that the stratification system of informational capitalism is unchallengeable since it is deserved. Reflect on how this contrasts with the traditional picture of capitalism, where the workers created the wealth, which was then expropriated by the rich not because of any superior qualities of the owners, but simply because capital ruled and kept the working class subordinate by economic exigency.

Critique

Castells's argument, whatever its meritocratic implications, presents several difficulties. A major problem is that his emphasis on the transformative capacities and characteristics of informational labour recalls a host of earlier claims that the world was changing because of the emergence of 'experts' of one sort or another. André Gorz (1976), Serge Mallet (1975), Kenneth Galbraith (1972), Daniel Bell (1973) and, to go back even further, Henri Saint-Simon (Taylor 1976) each had their own emphases when it came to describing the features of the educated in society. Some stressed their technical skills, others their cognitive capabilities and

still others their formal education. But at root they present the same argument: educated elites of one sort or another are the key players in society. Such positions are unavoidably technocratic to a greater or lesser degree. They hinge on the presupposition that either or both the division of labour and technology carry with them an inevitable hierarchy of power and esteem, resulting in a 'natural' form of inequality that is supra-social although of inordinate social consequence (Webster and Robins, 1986, pp. 49–73). Perhaps this is so, but there is much evidence of continued inequality, where those with the most privileged origins continue to dominate the privileged destinations, so much so that any unqualified acceptance of meritocratic assertions must be questioned (Heath *et al.*, 2005).

A second difficulty is that Castells's concept of informational labour is extraordinarily multidimensional. By turns he emphasizes education, communicative skills, organizational abilities and scientific knowledge, in this way lumping together a wide range of disparate activities and capacities under one blanket designation. At times it seems that Castells is saying little more than that dispersed activities require people with organizational skills or management training to co-ordinate them, or that organizations tend to be headed by actors who possess communicative abilities. A host of thinkers have long since said much the same thing. Consider Robert Michels's (1959 [1915]) classic *Political Parties*, in which the qualities of oligarchic leaders appear to be much like those of Castells's informational labour: organizational knowledge, media capabilities, communicative skills and the rest.

Castells's catholic definition of informational labour leaves the term short of analytic power. At one and the same time he can describe as informational labour those possessing technical knowledge sufficient to use ICTs with ease; those with scientific knowledge such that theoretic principles are embodied in the brains of educated actors; and management as a generic category, embodying those qualities which facilitate organization of institutional matters, writing skills and a capacity for strategic planning. There is surely a host of differences between stockbrokers working in the City and water engineers maintaining reservoirs in the Home Counties, yet to Castells they are both informational labour. Similarly, the journalist on a daily newspaper is to Castells an informational worker in much the same way as is the surgeon in a hospital. But all that these people may share is a high level of educational attainment, and no amount of labelling can merge them into a homogeneous group. Indeed, one can with just as much credibility argue that the jobbing carpenter, perhaps self-employed, belongs to the same informational labour category as the manager of an import–export business. Both need to communicate effectively, analyse, calculate and co-ordinate their activities. So elastic is Castells's notion of informational labour that it stretches far enough to encompass just about any group of people in even minor leadership roles, even in relation to classically 'proletarian' organizations such as in trade unions and working-class parties.

The historical development of informational labour

Accepting for the moment that there is an increased representation of informational labour in the workforce, one may ask questions of its novelty, its size and its

significance. Historian Harold Perkin's book *The Rise of Professional Society* (1989) is an especially useful source, since it maps the rise to prominence of professional occupations not, as with Castells, in the recent past, but over the past century. The history of England since at least 1880, argues Perkin, may be understood as the emergence of 'professional society' that claims its ascendancy especially by virtue of 'human capital created by education' (p. 2). Professionals are undoubtedly 'information workers', yet they have been on the rise, according to Perkin, for well over a hundred years. This continuous and long-term growth of informational labour over the century must lead one to doubt its novelty – and the argument that places weight on the expansion of the category.

In addition, one might query the novelty of knowledge-intensive industries. Biotechnology and software engineering may excite commentators today, but there are equally obvious examples of important knowledge businesses in the past. Petrochemicals, pharmaceuticals, aerospace, electrical engineering and even banking are industries with roots in the early decades of the twentieth century, ones which have made a significant contribution to GNP as well as to employment. It ought to be remembered that developments such as solid-state physics, nuclear energy, radar, the jet engine, plastics and television are important industrially (and, indeed, in everyday life), and each has an important knowledge input, yet all date from at least the inter-war period.

A look around at the turbo-capitalism of today suggests that most information workers are subordinate to the marketplace, far removed from the picture of the powerful brokers envisaged by Castells. They are controlled rather than controllers, eager to find a niche in the market system rather than exercise some countervailing influence. To be sure, this need not entirely invalidate Castells's point that the functionaries of the market system – those battalions of MBAs, economists and accountancy graduates – are nowadays more central to the operation of corporate capitalism than an outmoded propertied class. However, we need to pause before we ascribe special powers to such people. It would seem often that their actions are in fact tightly circumscribed. Better perhaps to see them as cogs in a machine, essential to capitalism's operation yet fixed in a place that renders them incapable of autonomous action. It is not difficult to conceive of financial and banking staff, investment analysts and actuarial scientists in this way, players entirely subordinated to maintaining the market system and their employers' position there. For instance, it might seem reasonable to identify university vice-chancellors (increasingly termed chief executives) as the epitome and apex of the 'information worker'. These are the captains of higher education, at the helm because of their proven academic achievement, their capacity for strategic thinking and their enviable people management skills. Universities in the UK, moreover, still benefit from public funding, providing them with autonomy from market imperatives. Such characteristics and conditions one might expect would provide considerable influence and independence of the 'information workers' steering higher education institutions. Nevertheless, casting an eye over universities in Britain over the past thirty years, despite rapid growth, it is hard to discern much action that does not fit into a mould shaped by market imperatives: commercialization, commodification and the spread of instrumentalism towards the

curriculum are the distinguishing features of today's 'business universities' (cf. Slaughter and Leslie, 1997; Tuchman, 2009). The glaring exceptions are the most prestigious institutions, Oxford and Cambridge, that occupy such a stellar position that they may still retain large numbers of Classicists and Philosophers and even hesitate to admit Business Schools (Oxford hesitated to accept the £23 million donation to build their school from arms dealer and banker Wafic Saïd).

Moreover, since the mid-1970s there have been assaults on the privileges of many professions (e.g. teachers, architects, lawyers and librarians), a huge expansion of higher education and a manifest decline in the returns on higher educational certification. A great deal of this testifies, again, to the power not of 'informational labour' but of the market system, which – whatever the intellectual capacities of the employee – appears to be the most decisive factor. The rise of informational labour appears to have done little if anything to limit the determining power of capital.

It is worth commenting here on the rapidity with which commentators move to assert that greater participation in higher education of itself demonstrates the spread of information labour. Awkward questions need to be asked as regards changed standards demanded in an expanded higher education system, as well as regards the fit between occupations and educational attainment. There are serious questions to be raised about standards in higher education as participation rates have burgeoned, and, while these are matters of debate (Phillips, 1996), there can be little doubt that there has been serious inflation of demand for qualifications from employers even while occupations themselves have not necessarily been upskilled (and arguably many have been deskilled [Beaudry *et al.*, 2013]). There are definite signs that a university degree is exhibiting the classic symptoms of a positional good: the more students who achieve a degree, the less valuable a degree becomes in terms of attaining a prestigious job, and the more valuable becomes the relative exclusivity of the institution by which the degree was awarded.

This raises the question – especially pertinent given Castells's emphasis on merit in the creation of information labour – of access to the most prestigious universities, entry to which opens the way for careers in the highest-level informational occupations, those found at the hub of informational capitalism. In Britain the signs are that the most exclusive universities, Oxford and Cambridge, have become if anything more closed in recent decades as regards the social origins of candidates. Thus, while only 7 per cent of the relevant age group benefit from private education in the UK, half of all students at Oxford and Cambridge come from such schools (Adonis and Pollard, 1997), whereas this figure stood at one-third a generation earlier. The association of high reputation universities with disproportionately privileged student origins is hard to miss. In the top ten or so British universities one finds proportions of the privately educated ranging from 25 to 50 per cent, though they are a much smaller element – less than 10 per cent – of the age group at school. This is not, moreover, a reflection of prejudice on the part of universities. Rather, it expresses the capacity of private schools to ensure their pupils perform disproportionately well in the public examinations that most influence university entrance. This raises a crucial issue that is underexamined by Castells: whether avowedly meritocratic social systems may still favour certain socio-economic groups.

The persistence of a propertied class

Though it is undeniable that globalized capitalism is an unsettling and uncertain phenomenon for all concerned, including capitalist corporations themselves, there is good evidence to suggest that the main stakeholders are constituted by a propertied class that enjoys concentrated ownership of corporate stock. The work of John Scott (1982, 1986, 1991, 1996) is a crucial source in this regard since, while it does not directly address the question of the significance of informational labour, it scotches many of the key claims of Castells with the evidence it presents. For instance, Scott reminds us that an important change in capitalism has been the shift from personal to impersonal forms of control. That is, outright individual ownership of firms has declined, to be replaced more commonly by dispersed share ownership. Thus nowadays various institutions such as banks and insurance companies typically own corporations, with individual shareholders usually accounting for small percentages of total shares.

Castells acknowledges this too, but then claims, drawing on a long tradition of 'managerial' sociology, that a 'managerial class' runs these corporations and, there because of its managerial abilities, 'constitute[s] the heart of capitalism under informationalism' (1997a, p. 342). However, Scott demonstrates that the growth of the joint stock corporation has not meant a loss of control by capitalist classes, since networks of relationships, based on intertwined shareholdings, link them together and ensure their position is maintained through a 'constellation of interests' (Scott, 1997, p. 73).

Contrary to Castells, it appears still that there is a capitalist class at the helm of the capitalist system (Sklair, 2001). It is a good deal less anonymous than he believes, though this propertied class may not direct capitalism in any straightforward sense. Castells is surely correct to draw attention to capitalism's instability and unpredictability at all times, but perhaps especially today. One need only reflect on news from the Far East and Latin America or the morass of contemporary Russia to appreciate the volatility, even uncontrollability, of capitalism nowadays. Nonetheless, this does not mean that the upper echelons of the system are not monopolized by a propertied group.

There has undoubtedly been a partial dissociation of 'mechanisms of capital reproduction' and 'mechanisms of class reproduction' (Scott, 1997, p. 310). That is, capitalists are still able to pass on their property to their heirs, but they cannot guarantee transmission of the associated top management positions. Nevertheless, this dissociation, which owes a great deal to the demand for educational achievement, has not extended very far. Indeed, Scott suggests that the propertied class also 'forms a pool from which the top corporate managers are recruited'. Moreover, this propertied class is especially advantaged in the educational system, so much so that it tends to emerge with the high-level informational skills stressed by Castells. This is surely a major reason for the exclusivity of entry to Oxford and Cambridge referred to above. As Scott points out, this propertied capitalist class has interests throughout the corporate system, and is able to ensure its continuity over time through its monopolization of the educational system as well as its monopolization of wealth. It stands at the top of the stratification system, enjoying

superior life chances to those in the subordinate service class that fill the rungs of the corporate hierarchies (p. 20).

Doubtless all top corporate managers are informational labour of one sort or another, but it is a serious mistake to bracket them with the remaining software engineers, accountants and journalists who also work with symbols. At the hub of globalized capitalism are indeed informational workers, but for the most part they are where they are, and able to continue there in large part, by virtue of privileged origins, cosseted education and the inestimable advantage of inherited wealth. It is the case that, as capitalism has globalized, so have patterns of capitalist classes become more variegated. However, even here there may be signs of the disproportionate influence of propertied groups that manifest a striking degree of self-reproduction (Useem, 1984).

The origins of informational capitalism

I return now to more conceptual aspects of *The Information Age*. Castells draws a distinction between what he terms an *informational mode of development* and a *capitalist mode of production*. The latter derives from Marxist traditions, and refers to a market economy, production for profit, private ownership and the like. However, a mode of development refers to the means of producing a given level of wealth. Industrialism was one mode of development, and now we have entered a new 'socio-technical paradigm', the informational mode of development, which presents us with a new way of creating wealth. In Castells's (1996) view the informational mode of development is where 'the action of knowledge upon knowledge itself [is] the main source of productivity' (p. 17). As noted above, in Castells's view the historical coincidence of capitalism in trouble in the 1970s and the 'information revolution' has given birth to the 'informational capitalism' of today.

But let us reflect a little on the conceptual apparatus that is being used here. It involves an insistence that we can examine change on two separate axes, the one a mode of production and the other a mode of development, one that provides wealth, the other that arranges and organizes that wealth. It is illuminating here to evoke the pioneering work of Daniel Bell. It is well known that Bell originated the concept of 'post-industrial society', later terming it the 'Information Society', though he developed his argument from within a resolutely Weberian framework. Manuel Castells (1996), while he situates himself in a more radical intellectual tradition than that of Bell, is conscious of his debt to his predecessor, whom he acknowledges as a 'forebear . . . of informationalism' (p. 26). However, the affinities are more profound than this passing note suggests, and they are ones which raise major question marks over the approach of Castells.

In this context it is useful to be reminded of Daniel Bell's theoretical premises because they reflect so closely those of Castells. It is especially useful in what follows to hold in mind that Bell's argument originated in an engagement with Marxism, a starting point congruent with that of Castells. In *The Coming of Post-Industrial Society* the thesis of an emerging 'information age' revolves around Bell's claim that the techniques and technologies of production have become

more important than the particular social system which is erected on them. That is, while Marxists might claim that fundamental change is a matter of moving through slavery, feudalism and capitalism, Bell asserts that the most telling change is through agriculture, industrialism and post-industrialism, with the latter stage being characterized as an Information Society. In Bell's (quasi-Marxist) language, 'the forces of production [technology] replace social relations [property] as the major axis of society' (Bell, 1973, p. 80).

What Bell does here is trump Marx with Weber. The class struggles of the 'relations of production' turned out to be of less import than the dull compulsion of the spread of the ethos of 'more for less', the drive of efficiency manifest especially in technological innovation. Ineluctably, and whatever his avowals to the contrary, Bell's argument for change thereby hinges on a technologically determinist principle, since this is what underpins social and political life. True to the Weberian tradition of American sociology, Bell concludes by stating that the major historical transitions are marked by the move from pre-industrialism, through industrialism, to post-industrialism, each fracture being marked by technical advances that generate enormous increases in productivity.

This is much the same argumentation that we get from Castells. While his analytical distinction between a mode of production and an informational mode of development allows him to acknowledge that we are actually in a period of 'informational capitalism', it is clear that the real motor of change is a 'technological revolution, centred around information technologies, [which] is reshaping, at accelerated pace, the material basis of society' (1996, p. 1). Castells endorses throughout the principle that it is the 'information technology revolution' that is the edifice on which all else of the 'network society' is built. Unavoidably, it means that Castells, his radicalism notwithstanding, is committed to a technocratic view of development, just as much as is Daniel Bell and, indeed, all other theorists of the 'information age' (Kumar, 2005). Given the assumption that the network society comes about, if to an unspecified extent, through changes in the 'mode of development', Castells must face the charge, irrespective of his somewhat different terminology, that he regards change as developing through a series of tiered stages of the sort familiar to all readers of post-industrial theory: whether from industrialism to post-industrialism (Bell's concepts) or from industrialism to informationalism (Castells's preferred term), the differences in substance are hard to see. It follows, as it must, that he argues that a certain technological foundation is the prerequisite and determinant of social and political life.

Moreover, this is not just a matter of reducing political options (though it does, indeed, mean just that), since it is also a position which flies in the face of a good deal of sociological analysis of technological change, notably that which insists that it is mistaken to imagine technology as an autonomous, asocial phenomenon which yet exercises a decisive impact on society.

Epochal change

At this point it is appropriate to consider further the presumption in Castells that informational capitalism marks an epochal change. While capitalism remains in

force, it is clear, too, that he believes – as the title of his trilogy announces – that we have entered the ‘information age’. I want now to reflect on Castells’s account of change in terms of the question: just how does one identify *epochal* transitions? In doing so, I intend to raise doubts about Castells’s concept of information itself, which, I shall argue, is eclectic and confusing, albeit central to his depiction of epochal change.

A moment’s thought makes clear that epochal shifts are not identified straightforwardly even by momentous developments. For instance, wars and plagues can have enormous consequences, as may famine and religious crises, but the promotion of these to the level at which they become signals of epochal transformation always requires an interpretative frame. This is not to deny the importance of particular events and processes; it is, rather, to underline how interpretation remains inescapable. That said, epochal shifts are not all in the eye of the beholder: the evidence that can be adduced, and the quality of argument, allow some markers to be accepted more readily than others. I am, in short, sympathetic to the writing of epochal history and am convinced of its feasibility, even while I concede that epochal shifts are not self-evidently *there*, whether in the form of political trends, economic developments or technological innovations.

Martin Albrow’s (1996) study *The Global Age* underlines the fact that there are alternative ways of identifying major transformations over time. He distinguishes three historical epochs, the *medieval*, the *modern* and the *global*, arguing that the latter age, one into which we have recently entered, is brought about by an accumulation of factors, but is signalled by the planet becoming the reference point in economic, political, educational and ecological affairs. Marxists, of course, have stressed other markers of epochal change: namely, *slavery*, *feudalism* and *capitalism*. Daniel Bell, to whom I referred above, has a different set of indicators: *pre-industrial*, *industrial* and *post-industrial*. Manuel Castells, though he does not explicitly say much about it, unquestionably subscribes to the view that the Information Age represents an epochal break with what went before.

Castells obviously gives great weight to informational developments signalling this transformation. One recognizes this, yet must query what Castells means by information in his account of the new age. In his trilogy he adopts a variable conception, moving from an emphasis on the network society, where it is the flows of information which are the distinguishing feature, to discussion of the automation of work processes by a variety of electronic devices, to insistence on the centrality of informational labour, which possesses essential qualities such as communicative and analytical skills, to a definition of informationalism as ‘the action of knowledge upon knowledge as the main source of productivity’ (Castells, 1996, p. 17), then to the claim that an ‘informationalised’ society is one in which ‘information generation, processing, and transmission become the fundamental sources of productivity and power’. It is pretty easy to recognize that these conceptions of information are by no means the same. For instance, ‘knowledge upon knowledge’ action cannot be subsumed into an information flow since, for example, an industrial designer can add value to products by creative input that has little need for an information network. Again, informational labour, at least elements of it, can operate quite effectively without routine use of an information

network. Furthermore, just what constitutes a network is problematical, since this might involve two people speaking on the telephone together or else the exchange of prodigious amounts of electronic information between computer terminals.

It is not unreasonable to ask of Castells: which particular definition of information is most germane for marking the new age? I have already said that he reverts, as a rule, to the familiar ground of technology, especially towards ICTs that appear to define the 'informational mode of development', though this sits somewhat uneasily with his focus elsewhere on the centrality of informational labour. In truth, of course, Castells lumps together a variety of notions of information, presumably on the grounds that, to grasp the big picture, it is the fact of the increased import of information, and especially of information movements between actors and sites, which distinguishes the new age that he refers to as the 'network society'.

Nonetheless, this process of homogenization is not sufficient, since one is left with the crucial question: what is it about information that identifies the new era? A reply, tacit in Castells, that it is pretty well everything about information, just will not do since we must search to distinguish the more from the less consequential. We may understand more of this objection if we reflect, if only for heuristic purposes, on an alternative conception of information. Drawing loosely on the work of Desmond Bernal (1954) and, more recently, that of Nico Stehr (1994), one may divide history into epochs in terms of the role of theoretical knowledge, which we may define as information that is abstract, generalizable and codified in texts of one sort or another.

Bernal divided history into different periods' use of theoretical knowledge. Thus the sixteenth and seventeenth centuries, the period of the *Scientific Revolution*, are identified by advances in theoretical knowledge with little if any practical consequence (this is the age of Copernicus, Kepler, Galileo, Newton and others whose advances in knowledge of planetary motion, gravitational force and so forth were enlightening but not utilizable). Bernal's second epoch is the *Industrial Revolution*, stretching from the mid-eighteenth through the nineteenth centuries, which was characterized by profound practical change, though the people who created the changes were, on the whole, ignorant of theoretical knowledge. On the contrary, individuals such as George Stephenson responded to practical demands to develop technologies such as the railway engine and the steam engine. The third, and final, epoch is what Bernal terms the *Scientific-Technological Revolution*, the period of the twentieth century, when theoretical knowledge came tied to practical activities. Examples would range from aerospace to radar development, textiles to plastics, the key theme being that theoretical knowledge plays a central role in the production of technologies. Historian Eric Hobsbawm (1994) confirmed this theme in writing that during the twentieth century 'the theorists [were] in the driving seat . . . telling the practitioners what they were to look for and should find in the light of their theories' (pp. 534–5).

My point here is not to persuade readers that theoretical knowledge distinguishes different epochs (though I do think it has much to commend it as a way of seeing). Rather, it is that, in considering an alternative outline of different epochs, we may query the appropriateness of Castells's signalling of the 'information age'. Theoretical knowledge does not appear in Castells's scenario, yet a case can be

made for it playing a key role in the contemporary world. Moreover, what this alternative conceptualization allows us to do is to better appreciate the vagueness of Castells's own definition of information.

Conclusion

It would be wrong to end a discussion of Manuel Castells on a discordant or oversceptical note. His early book *The Informational City* (1989) set out a case for paying close attention to information that was pioneering, innovative and compelling. His later trilogy is a *tour de force*, one that deservedly vaulted its author into the position of leading commentator on the Information Age. His more recent *Communication Power* (2009) is an essential read for anyone setting out to understand the role of mediation in the world today. As an analysis of the direction and dynamics of contemporary capitalism his work is unsurpassed. It is an extraordinary achievement to produce such an encompassing *oeuvre* that is at once steeped in empirical evidence and conceptually rich. When one considers that so much of it was produced while Castells was battling with a life-threatening condition, it is all the more stellar an achievement. *The Information Age* is also enormously scholarly yet pulsating with passion and engagement with the world. Above all, it demonstrates how information flows, and the networks which these use, are central to how we live today. Castells has come to refer to the 'network society' as the most accurate conceptualization of the present epoch and it is hard to disagree with his appellation.

For well over a generation now Manuel Castells has occupied a position as a leading analyst of social movements. His *The City and the Grassroots* (1983) is now a classic account of an urban social movement. In my view Castells's continued examination of social movements, set in a context of network relationships and flows, represents his most important contribution to thinking about information today. Volume 2 of *The Information Age, The Power of Identity* (1997), puts social movements centre stage. The author's grasp of detail, along with a capacity to piece together a big picture of the direction of change, makes this study vital for students of contemporary society. Moreover, Castells has gone on to situate today's social movements in a context of the centrality of mediation to political and social mobilization, hence his concern for what might be thought of as symbolic politics in *Communication Power* and in his accounts of 'social movements in the internet age'. Were I to be asked where to begin reading Manuel Castells, it is in these up-to-the-minute, bold and empirically rich studies of social movements.

There remain difficulties with Castells's account, ranging from substantive matters such as his underestimation of the salience of class inequalities, the relation between continuity and change in his argument, and ambiguities as to what he understands by information, to a lingering technological determinism at the heart of his thesis. No analyst of information nowadays can fail to start with the work of Manuel Castells. But nor can accounts stop with *The Information Age*. Castells for one would not want this. Indeed, Chapter 7, concerned as it is with *mobilities* today, may be read as an extension of concerns set out in his studies of social movements.

Note

- 1 In a 2005 interview Castells clarified thus: 'I actually ceased to be a Marxist when I was politically most active, between 1975 and 1979, and involved in the Spanish political transition . . . I ceased to be a Marxist when I realised that most of the questions I was interested in could not be understood by using Marxism as I could not understand, for example, gender, urban social movements . . . I became more political when I left Marxism. I left the Parisian salons with wonderful categories that had nothing to do with reality and started relying more on my own observations . . . I grew out of Marxism. I am not a Marxist any more. For me class is the least fruitful way to look at social change nowadays' (Castells, 2005, p. 137).

Mobilities

The subject of Chapter 6, Manuel Castells's concept of the network society, attends to the *flows* of information and their significance in the world today. Thinking about ways in which information moves helps us appreciate, for instance, novel features of the urban environment (that stem from cities forming information nodes in a connected world) as well as recompositions of social inequality (as information labour emerges as a key category of employment). This chapter's subject, mobilities, extends Castells's thought to a more ambitious plane. The concept argues that we should conceive of relations nowadays in terms of mobilities, not just of information flows, but about pretty much everything.

The suggestion is that nowadays mobilities are a central feature of our world (Urry, 2000, 2007). Clearly, information and communications are central to this, and I shall have more to say about this in what follows, but mobilities thinkers draw attention to a wide range of issues that are illuminated by the approach. Thus they stress that mobilities are a helpful way of seeing production itself, where goods are fabricated in various locations, distributed from others and often marketed globally. Think, for example, of the PC or laptop, designed in one or more places, manufactured in several and sold everywhere, and the picture comes clear: products are mobile now in ways that are unprecedented. Apple's iPhone and iPod manifest these traits: they are designed and marketed chiefly from Apple Inc. headquarters in Cupertino, California, but manufacture takes place in Guangdong, China, under the auspices of the Hongfujin Company, itself owned by a Taiwanese corporation, Foxconn, that operates under the name of Hon Hai Precision Industry Co. If we conceive of products as increasingly mobile, so too might we reflect on the mobility of the processes involved in their creation. These call for speedy, robust and reliable communications technologies that enable command and control to work effectively, placing a premium on an ICT infrastructure.

The mobilities paradigm includes more than products, processes and information movement. It can also incorporate ideas and identities, turning attention thereby to ways in which opinions, values and even politics entail important dimensions of mobility. Of course, there has always been an element of mobility about such matters, but today, in a globalized world of encompassing media, one may better understand ideas and identities by taking into account ways in which they are transmitted and exchanged across groups and distance.

Finally, the mobilities approach places emphasis on the mobilities of people. This is an enormous topic, but it is vital to appreciating the world today. People move across space, physically as well as imaginatively, in unprecedented ways. Whether it is the mundane matter of commuting to and from one's place of work or taking off for a weekend break, or whether it is visiting Spain for an annual holiday or migrating to take up another post, the mobilities of people are a distinguishing feature of how we live now. Necessarily, this connects with the mobilities of information since people carry with them ideas, identities and cultures (from clothing to cuisine, language to music) that come into contact with different groups. These mobilities also rely on – and stimulate – modes of transport, from cars and trains to aeroplanes. Imaginative mobility is integrally connected; we have access to so much in this manner, from television shows to virtual reality constructions of locations we 'know' but may be unlikely ever to visit physically (the Gobi Desert, the depths of the Atlantic Ocean, the streets of Tijuana . . .).

Technological determinism

The central point is that mobilities thinkers argue that the movement of peoples, products and information has expanded and accelerated to become a defining feature of life today, with major consequences. Information and communications technologies are important to this, but they should not be thought the determining factor. I have made this point elsewhere, but it is worth repeating that we need to resist technological determinism since it is at once oversimplistic and simultaneously relegates the role of people in shaping relationships. Let me give an example from a mobilities perspective. Computer dating is a fascinating and increasingly familiar phenomenon in advanced societies. Though it began in the 1960s, even twenty years ago computer dating was marginal and even regarded as a resource of the desperate, yet today the US industry leader, eHarmony, can make a claim to account for almost one in five marriage introductions (Clark, 2010), though the company was founded as recently as 2000.

Computerized technologies are a vital part of the success of these organizations, but dating agencies are not a consequence of the availability of ICTs. To understand the development of computer dating one needs to take into account a raft of factors: the instability of relations (divorcees need to have ways of finding partners and many people may be seeking only transitory relationships), the increased stress on one's personal responsibility – and right – to find one's partners (parents and elders are increasingly marginal), the delay of marriage that has undermined previous ways of meeting such as college and local clubs and, perhaps most important, the increase in geographical mobility that plunges many into a world of strangers due to job relocations (how might 35-year old singletons meet new partners when they move from New Orleans to New York?). Computer dating, one may confidently assert, will be familiar to a good many of the readers of this book since it has rapidly become a part of the dating scene. It is easy to join and people are filtered and connected to others on a variety of criteria – from income and occupation, age, status, physical appearance, likes and dislikes, sexual

preferences, to lifestyle and location. The systems are increasingly sophisticated such that users can segment readily to suit tastes and expectations, as they can transcend nations – noticeably a feature of users who seek partners of similar background, religion and ethnicity. Predictably, advisory guides to using online dating systems have emerged to help the novice (Leung, 2013) not with the technology, but with the complex human conditions with which they engage.

Computer dating is widespread and expanding, especially in urban spheres where people congregate and the experience of living among strangers is most evident. A few moments' reflection persuades that this is not an outcome of technological innovation, but of a cluster of socio-economic factors. However tempting it is to argue that technological innovation is a silver bullet that impacts on society, instances such as the spread of computer dating demonstrate that change is much more complicated and multifaceted than it might at first appear. While computer dating is a manifestation of a more mobile way of life, we should not make the mistake of thinking it stems from technology. In this light we would do well to ponder the words of the Apple founder, the late Steve Jobs, when asked to explain his approach to technological innovation. Jobs thought that 'you've got to start with the customer experience and work backwards to the technology. You can't start with the technology and try to figure out where you are going to sell it' (quoted in Schofield, 2011). It is worth noting that Jobs here is urging that even with hard technologies one needs to start with human factors, so that these social elements are constituted within the product, whether a phone, computer or music storage machine. Today we are in a milieu where, when we speak about technologies, software is of more import than the hardware used. In such cases successful software construction takes even more account of social factors since this is essential to its appeal (it must code with an eye for practicality and appeal to the requirements of users). And with this point we may return to the spread of computer dating systems to stress that enterprising people are also essential for its success, since they must have an awareness of the opportunities available that require complex social trends to be brought into new sorts of organizations and computerized systems to meet changing social needs. Dating agencies predate computerization, but digital technologies, guided by knowledgeable and innovative entrepreneurs, have been harnessed and programmed to vastly improve the sophistication and versatility of what can be offered.

Time–space compression and co-ordination

At the core of mobilities is recognition that time and space are connectable and subject to rearrangement. Space is a physical feature that cannot be done away with, but it can be 'shrunk' by the spread and adroit use of technologies. Consider in this respect the spread of air transportation: it is now routine to catch a plane for a holiday that a few decades ago would be a major journey; to go to a conference in Chicago for a few days, which a century ago would be the trip of a life time; to fly from Manchester to Madrid to catch a football game in the Champions League, which would have been unconscionable. Aeroplanes are at one level, but

the automobile has also been enormously important in shrinking distance (however problematic traffic jams have become). That we talk routinely of places being 'x minutes away' rather than estimate in terms of distance testifies to ways in which spatial limits can be managed and manipulated. In England in 1960 car ownership was restricted to about 10 per cent of households, while today over 80 per cent have access to a vehicle. This, along with the railway, which was hugely significant historically not least in bringing about unified time ('London time', as train operators soon insisted upon in their schedules [McKenna, 1980, p.246]), enables people to commute lengthy distances to and from work and most people to consider travelling extensive distances to see family, friends and places as nothing exceptional. These technologies help overcome the barriers of space, but they also affect time since they allow co-ordination and are co-ordinated by organization of precise clock time. Greenwich Mean Time (GMT) was established as recently as the late nineteenth century, but the co-ordination of time and space has developed apace since, so much so that timetables enable people, with confidence, to make complex journeys go smoothly.

These instances tell us a good deal about time-space compression and co-ordination that takes us towards a 24/7 'anywhere, any time' way of life. Manuel Castells has been pre-eminent in writing about this tendency that leads us towards a goal of *action on a global scale in real time*: the live coverage of a sports event thousands of miles distant; the arrangement of production supply across continents from a central locale; the transfer of funds across national frontiers at the touch of a keyboard . . . It is this that allows our mobile lives, while it also expresses them. A key element, necessary but not sufficient, is an infrastructure that allows the flows of information (of transport schedules, of media content, of business data . . .) to operate, without which major obstacles would be manifest, though for the most part we take it for granted, and of which we become aware when there is a major computer crash, a power collapse and the like.

Important manifestations are an acceleration of affairs, something that cultivates a 'condition of immediacy' (Tomlinson, 2007) and has even led to a contention that we must now live with a 'logic of speed' (to adopt the terminology of its chief proponent, Paul Virilio, *dromology*). Virilio (1986) refers to 'dromocratic consciousness' to conjure this sense of endless acceleration of life and the sense that one is living on an unending race track (Armitage, 2000). One wants food available whenever the need takes, hence the capacity to 'graze' throughout the day or night at ubiquitous outlets; one wants to shop, so retailers open now seven days a week for long hours, and even if they close one goes online to make purchases; the mobile phone means one is always in touch and always contactable. In the business realm this is the 'just-in-time' ethos, but in the wider society it is said to encourage an 'I want it now' mentality as well as a refusal to bend to the constraints of time, place and even the physical body. If one feels confined by one's local circumstances, it is much easier now to leave on a bus, train or plane, to join those mobile folk, the migrants, to another town, another country or even another continent.

John Tomlinson (2001) creates the term 'proximity politics' to capture the sense that news reporting can cover *now* what is happening in any given place since news can be brought live to audiences far away. This encourages a sense of being

close up while far away, following in real time the unfolding of events in a distant country that can have profound effects on viewers. This can have powerful effects on audiences, who can more easily get taken up with the unfolding of events. A related consequence is that one can become an instant 'expert' on places and issues when, sparked by a dramatic incident or crisis, one experiences a media storm through which one acquires the ability to identify locations that were once beyond one's ken, to discourse on ethnic divisions in a region, to pontificate on the history of a place about which, but weeks before, one had only the haziest knowledge.

Manuel Castells (1989) documents how time–space compression promotes particular locations, notably global cities, which are essential switching points for the information flows that generate and manage our age. Such places are nodes on a global information network that come to feature distinct patterns: the occupational structure transforms into one in which a numerically large and culturally dominant information class is visible; they have a cosmopolitan outlook and high-level skills, are able to work comfortably with different people and ideas, with their advanced education and cognitive and symbolic capabilities; the established working classes are denuded, their jobs reduced and/or repositioned outside the metropolitan centre. Meanwhile, low-level workers find employment – if at all – in servicing the needs of the professional information workers, staffing restaurants, baby-caring and being employed in janitorial roles. Often living proximately to those on whom they are reliant for work, these groups are socially far distant.

Flows and scapes

John Urry's writing has expanded ideas found in the work of Castells. His contention is that mobilities provide an apposite metaphor for how we live now, indeed that we now inhabit a *mobile world*. He suggests we may conceive of mobilities of people, products and information flowing along various *scapes* such as roads, planes and telecommunications systems. Such a conception has an appeal for students of the internet and contemporary communications, since it draws attention to the ease with which the cybernaut can manage to draw upon and transmit vast amounts of information that connect with others far away. Urry emphasizes the fluidity of contemporary life with his concern for mobilities, stressing ways in which people may move to and from, within and beyond places and relations. His writing is also helpful in that it refuses to embrace a naïve view of information networks that might suggest one connects on virtual scapes in ways that require little direct human interaction.

Urry (2002) points to 'corporeal travel' that is about moving in order to come together with others. One e-mails and sends SMS messages to organize the conference meeting before and after the event; one plans extensively for the annual vacation, all online, but the intention is to physically meet with like-minded folk on a beach or by the pool; one exchanges messages on the internet with work colleagues so that physical meetings can be maximally fruitful; one spends an age researching medical treatments and the credentials of doctors on the internet so that one may get to them personally and be treated most effectively . . .

This is a reminder of what Deidre Boden and Harvey Molotch (1994) termed the 'compulsion to proximity', drawing attention to the impulse within humans to meet up, to experience 'copresence', however extensive are the virtual connections. We are reminded here of the pertinence of the microsociologist Erving Goffman, who stressed the importance of daily interactions that require face-to-face exchanges to be effectively sustained. They are also informationally intense in ways that text and even video find hard to match: tone of voice, turn taking, eye contact, body language, unguarded glances, facial shifts, touch and hand gestures communicate just as much as what is explicitly stated. Added to which is the key factor of *context* that supplies so much meaning in direct communication. Virtual relations will not displace interpersonal connection any time soon. Moreover, the vitality of copresence reminds us to retain scepticism towards commentators who enthuse about 'virtual communities' that might be established through social media such as Facebook. To be sure, one can 'meet up' online, one might even exchange intimate messages every day with one's virtual 'friends', but unless they involve physically meeting (which ones that last generally do) there will always be a thin and ersatz quality to these communities. Goffman (1967) observes that in interpersonal contact 'unique informational conditions prevail' (p. 33) and these cannot be readily substituted by a digital connection. This is another reason, incidentally, why predictions of the 'end of commuting' through electronic terminals allowing people to undertake their work without leaving home are premature.

Urry's work also reminds us not to neglect the significance of the vastly increased movement of people over recent decades. Migration is often considered a thing of the late nineteenth and early twentieth centuries, an easy association being with the Irish poor fleeing the Potato Famine to the United States, Italian peasants escaping destitution in the south of their country and Jews running from pogroms in Tsarist Russia. Against this, it is important to observe that the scale of migration since the 1980s is far in excess of these earlier times (Castles and Miller, 2009). During the Famine of the 1840s and up to 1860 about 1.5 million Irish left for the USA. By comparison, in Britain from 1997 to 2011 over 4 million migrants entered the country and over 1 in 8 people declared they were born abroad in the 2011 Census. These cluster in urban centres, but their effects are palpable, from Polish stores that have opened to the plurality of religions that have developed in the UK.

We ought also to maintain a catholic conception of what migration means: it involves the movements of peoples, for long and short spells, for economic purposes as well as for purposes of pleasure, whether it is voluntary or imposed upon people and whether it is internal to a nation (e.g. from the South to the North and West of the USA, from the North East of England to London) or beyond borders. In a book such as this, where the informational dimensions are to the fore, we need to recall that migration identifies the movement of folk, so it includes holiday makers, international students, business people posted abroad as well as asylum seekers. All are characterized by their mobility and the signs and symbols they bring with them and experience on their journeys. One needs also to be alert to the markedly different experiences undergone, from the business traveller, who goes in comfort, cushioned by credit cards, expense accounts and welcoming hotels, to the illegal migrant, who is penniless and condemned to occupy the

lowest and most precarious of positions. Zygmunt Bauman (1998) distinguishes these as tourists and vagabonds: they share the same activity, but their reception and circumstances are far distant from one another, so much so that Bauman sees the vagabond as the *alter ego* of the tourist.

It is difficult to measure the consequences of such movements, but it is undoubted that they are informationally saturated. Holidays abroad typically may be within a tourist bubble, but still they bring visitors into contact with other people and places (Urry and Larson, 2011); regular business trips might have been among somewhat familiar surroundings in terms of hotels and airports, but still one encounters a different language (or, for English speakers, one's mother tongue spoken by others) and significantly different behaviours; in global cities such as London it is impossible to avoid the variety of ethnicities and languages in one's daily movement when one in three is born outside the UK and one-quarter are non-British nationals. Over time migration engenders cultural changes, in matters ranging from fashion to cooking, speech to music, forms of payment (the ubiquitous credit card) to choice of intimate partners. It is also, of course, often an exceedingly fraught matter, particularly in times of recession and noticeably where host communities focus on poorer and most strikingly different migrant groups (Goodhart, 2013).

Networked individualization

One of the most helpful accounts of contemporary life, not least because his theorizing is grounded in a great deal of empirical evidence, comes from the Canadian/American sociologist Barry Wellman (born 1942). His work bears directly on concerns of mobilities thinkers since he sets out to examine the networks that are in play and what they amount to. Wellman (2001) coins the term 'networked individualization' to capture what he regards as the emergence of a situation in which people can use today's mobilities (of transport as well as communications technologies) to have contact with those with whom they choose to have relations.

To advance his argument Wellman (2001) enters the long-standing debate over the character and resilience of 'community', refusing to agree that it has diminished. He conceives community as 'networks of interpersonal ties that provide sociability, support, information, a sense of belonging and social identity' to the individual (p. 228). In these terms he distinguishes three broad types of community that have a rough chronology. The first fits the usual image of the settled community: ways of life were fixed, relations were with close neighbours and one lived and worked in a given place. In such locations Wellman identifies people as having 'door-to-door connectivity' (p. 232) and a way of life in which conformity was obligatory. The second type Wellman terms 'place-to-place' to identify a shift in which people have relatively few connections with their immediate neighbourhood, but maintain ties with family and friends elsewhere by travelling, usually by car, to visit places where their kith and kin remain. At this stage the family and home are central and one leaves chiefly to maintain connections, but one's immediate neighbourhood has lost its monopoly on social connectivity.

The third stage takes us to the present ‘networked individualization’. Wellman sees this as highly personalized, allowing the individual to decide upon whom they will network with and where. Thus ‘person-to-person’ connections strike the keynote. ICTs enable people to nurture and nourish relations with individuals from afar (though this does not discount meet-ups) with hitherto unthinkable versatility, so much so that one can readily enjoy many facets of one’s life. That is, one might have a network of golf friends, of work colleagues, of college members, of jazz fans and of political allies who do not necessarily come into contact with one another, because the connection is with the individual, who chooses them for his or her personal reasons (cf. Baym, 2010). There are decided echoes here of Anthony Giddens’s theorization of empowered individuals who are free to choose how they conduct their lives. As Lee Rainie and Barry Wellman (2012) put it, people ‘have become increasingly networked as individuals, rather than embedded in groups. In the world of networked individuals, it is the person who is the focus: not the family, not the work unit, not the neighborhood, and not the social group’ (p. 6). Campbell and Park (2008) call this a ‘personal communication society’, emphasizing that relations revolve round individual preferences. Connections nowadays might be much more extensive geographically, but in Wellman’s view these – even if ‘weak’ in the sense of not necessarily sustained on a day-to-day basis – offer considerable levels of satisfaction to the individual (Granovetter, 1973). What we have, in effect, is mobile relationships mediated and maintained by computer communications technologies.

Mobilization

I return to this issue below, but for now underline that Wellman offers a positive interpretation of the spread of networked individualization. His notion that individuals, through networks, now have more options than previously may usefully be connected to a topic that has achieved much attention in recent years: how might new media affect political mobilization? It is consonant with networked individualization that people may now be stimulated to engage with politics via appropriate social media that allow them to choose freely which affiliations, for how long and with what degree of commitment, they may make. Where once political activism favoured the congregation of like-minded participants in specific places, now the suggestion has been made that large numbers of individuals, spread far and wide, might be able to come together through and on the web. That is, large numbers may be brought together, but the individuals can remain dispersed and disconnected save for a virtual tie.

Moreover, to take the personalization still further, it may also be the case that people may no longer have to commit allegiance to an entire political programme. Instead, they may – in line with the expansion of issue-based social and political movements – be able to support different groups on different issues without fear of feeling they are compromising their integrity and perhaps being taken to task and made to feel uncomfortable for apparent inconsistency by fellow supporters

of a group. In these terms one might embrace blood sports and remain comfortably a feminist, or oppose coal-fired power stations while supporting trade unionists in a strike, or support gender equality measures while being anti-abortion . . . What one sees here is that the proposition that traditional political engagement, with its implications of physically combining and acting and even thinking as a mass, is becoming outdated as networked individuals can align virtually where they choose.

This argument, that politics now has shifted towards matters of identity and more specific lifestyle issues with which new media networks can closely accord, has gained significant support. It is the argument of Lance Bennett and Alexandra Segerberg (2011), who refer to the ‘personalization of collective behaviour’ (p. 776), and also endorsed by Manuel Castells (2009), who identifies the spread of a cultural shift that stresses personal choice, but believes that the risk of self-centredness may be countered because individualization ‘inspires project-oriented social movements that build on the sharing of new values among individuals who want to change their lives and need each other to fulfill their goals’ (p. 362).

There is general acceptance that there has been a shift towards greater individualism over recent decades and that part of this is probably manifested in a decline in adherence to established political parties. However, to see in the spread of issue politics and personalized engagement a countervailing pressure towards declining allegiance to established political organizations is problematical. It is so easy to sign up to a virtual protest or to receive electronic newsletters that the epithet ‘slacktivism’ must often be merited. If people are not motivated sufficiently to leave their front doors to express a view, then we can reasonably suspect that they do not feel especially strongly about the matter. To be sure, e-campaigns can and do emerge very quickly and can even create a frisson, but unless this translates into practical action (demonstrations, strikes, boycotts, meetings with MPs . . .) it is likely to have little consequence. It is difficult to see personalized involvement translating into significant action. Indeed, in research (Gillan *et al.*, 2008) on the anti-war movement, we found that people mobilized more effectively and determinedly when friends and colleagues with whom they physically interacted were involved and personally persuaded one another to get involved by discussion, argument and cajolement. Moreover, while people might agree on an issue such as Stop the War (an important focus and rallying call of the anti-war movement in Britain in recent years), there was a singular lack of dialogue among the diverse allies simply because discussion would threaten unity on the issue. Muslims avoided conversations with feminists, leftists with the religious, patriarchy with punks . . . It is hard to interpret this as other than a fragile form of politics, unlikely to effect other than a transitory influence. Paradoxically too, virtual networks may also polarize thought because people select only those sites where they find agreement, ignoring others where perhaps debate and discussion are more sorely needed (Sunstein, 2009). I return to these matters in later chapters of this book, but stress here that personalized politics mediated by digital connections are likely to be weakly held, superficial and unlikely to effect change.

Critique

The concept of mobilities is a helpful way of thinking about how we live now. We are familiar with the notion of information flows from the work of Manuel Castells, but mobilities take this further to attend to the dynamism and fluidity of much wider aspects of life today. The mobility of information remains vital, but we can think also of the mobility of products and people as closely connected elements of life today. The notion of mobilities does not propose that we inhabit an Information Society, but it is evident that it relies on the availability and circulation of much greater volumes and velocity of information than hitherto and in this way is germane to the concerns of this book. Moreover, it is complemented by the notion of there having been a transition to the networked individualism that Barry Wellman conceives, not least since the personalization of life he describes is something that hinges on and encourages the mobility of people and information networks that facilitate such movement.

As a description of how we live now, mobilities are heuristically useful. However, in the foregoing there are several difficulties that might be outlined.

The first is that mobilities as a concept might help us to think, but it has little explanatory power. It is interesting to observe that life is more fluid than before and that we get insight from tracing the movement of products, people and information, but the approach fails to offer us reasons why this happens. Without explanation we fall short of an adequate understanding of the dynamics of change and, by extension, are rendered incapable of directing the course of future developments. If we are a 'mobile society', we can detail its constituents, but unless we know why this is the case it is exceedingly hard to envisage how we might be able to shape it in ways that we choose.

A second criticism is that one might insist that *immobilities* be studied. This is just what Bryan Turner (2007) proposed in an insightful critique that identifies the presence of an 'enclave society' that *restricts* the mobilities of groups. He instances the growth of gated communities and border controls that allow free movement and peace of mind to those with the right possessions (wealth, appropriate passports), but this is at the price of excluding others (the world's poor, the lower classes). One might add the immobilities of those within de-industrialized parts of advanced countries: those with few educational qualifications, little or no resource and puny prospects of work now that the factories and mines have gone. Their lives are condemned to immobility, where there is little room for choice and where opportunities for networked individualization are few.

Moreover, agencies can take aboard the latest computer technologies the better to control and keep in their restricted place those who are to be rendered immobile. Hence biometric measures, CCTV and dossiers of suspects' movements and circumstances are constructed and drawn upon to ensure that the acceptable are provided maximum freedom while those outside are turned away. Didier Bigo (2012) reminds us that surveillance is intimately connected to security services that work to ensure the dangerous have restricted mobility by tracking potentially everything that moves, whether products, capital, people or information. When we read of the emergence of a mobile society and think of our own

part therein the idea will appeal to many readers of books such as this, chiefly people of privilege: it is much easier to move than hitherto so long as one has credentials, contacts and capital. However, we might usefully reflect on those ushered or pushed outside, whether it is those propelled from London through the inexorable spread of gentrification or the desperately poor from Africa and beyond stalled in their ambitions by the technologies that protect Fortress Europe.

A third issue arises from this issue of immobilities. It is that the notion of networked individualization which brings more personal choices to those participating is presented as if it is a positive way to advance community. Barry Wellman, one may be reminded, defines community as those networks that 'provide sociability, support, information, a sense of belonging and social identity', and he suggests that more individualization allows people to personally nurture their own community relations. However, this is to adopt a particular, individually centred, concept of community that veers towards self-centredness.

We get a better appreciation of this by contrasting Rainie and Wellman's (2012) book with that of Sherry Turkle (2010) that gets short shrift from these two authors. Turkle's study *Alone Together* bemoans the fact that she finds family members sitting round the dinner table together, yet not conversing, meanwhile individually texting and e-mailing their networked friends. Her abiding concern is that social media technology is being used by people to shut off from face-to-face interaction, while virtual 'friends' are maintained. In Wellman's terms, this appears a positive thing, since it maintains the individual's community relations (and, indeed, Rainie and Wellman [2012, p. 119] directly reject Turkle's concern). However, a different interpretation is that Turkle is working with a definition of community – in this case family – that rejects the idea that individuals should do just what they like. Turkle refers to people using ICTs to 'navigate intimacy by skirting it' (p. 10) and this seems to be what happens when they are used to prioritize self-satisfaction. Community, family, kin and even neighbourhood ought not to be reduced to matters of personal satisfaction as they are with Wellman. Sometimes community means *not* doing your own thing, but deferring to the group and even facing objections to one's behaviour from that group.

Further, this may return us to the point about *gated* communities, though we might adopt the concept as a metaphor to include the cut-off and cloistered moving beyond their immediate homes. Christopher Lasch (1995) wrote scathingly about the shallow notion of community that joins those in Manhattan, New York, with those in South Kensington, London, and those in the 7th Arrondissement of Paris. This is a shared milieu of cosmopolitanism, affluence and freedom to go where one will, the epitome of the mobile life. It is a 'migratory way of life' (p. 5) that allows a 'tourist's view of the world' (p. 6), but it is premised on exclusion of and non-engagement with the immobile people who are shut outside, even if close physical neighbours. Lasch presents this as a threat to democracy itself, since it is a retreat from community, which entails engagement, debate and often objection to what one personally desires. What a paradox: here we have the most mobile of social groups, the international elites of business and the professions,

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those who are most able to nurture the networks in order to have the personally satisfying 'community' that Barry Wellman envisages, but they do not connect with those groups – their fellow citizens – that are physically proximate. To do so would perhaps be to challenge their own positions, to confront them with reminders of the immobilities of fellow citizens, though it may well stimulate the discussion and disagreement that is a core constituent of democracy.

Information and the market system: Herbert Schiller

The tremendous increase in information and attendant technologies over recent years must be acknowledged. It is evident, even to those taking only a cursory look, that there are many more images than ever before and, of course, there is a large range of new media technologies transmitting them. It is also obvious that information networks now cover the globe, operating in real time and handling volumes of information with an unprecedented volume and velocity, making the telegram and POTs (plain old telephony) of the 1970s appear way out of date. The remarkable growth of the internet and World Wide Web, from virtually zero in 1995 to majority access across Europe within a decade, is well known. By 2012 73 per cent of individuals in the European Union (Eurostat, 2012) used the internet (and 30 per cent gained access with mobile devices away from home or work). There is, of course, variation across nations, with such as Romania and Bulgaria having less digital penetration than Nordic countries. Nonetheless, the trend is unmistakable: for rapid adoption, with over 80 per cent of households in the likes of Germany, Britain, France and the Netherlands. Figures are if anything higher for the United States (Center for the Digital Future, 2012), where social media are being rapidly taken up (Pew, 2012). It is impossible to ignore the routine use of computerized work stations in offices, to be ignorant of rolling news and digital television channels, to be unaware of the pervasive spread and sophistication of computer games, to be blind to the expansion of advertising and its metamorphosis into forms such as sports sponsorship, direct mail and corporate image promotion (or to miss its insinuation in e-mail and on YouTube and Facebook). In short, the 'information explosion' is an unmistakable feature of contemporary life and any social analyst who ignores it risks not being taken seriously.

As we have seen, there are thinkers, most prominently Daniel Bell, who believe that this is indicative of a new Information Society emerging. For such people novelty and change are the keynotes to be struck and announced as breaks with the past. Against these interpretations, in this chapter I want to focus on Marxist (perhaps more appropriately Marxian)¹ analyses of the 'information age', centring on one thinker, the late Herbert Schiller, who acknowledged the increased importance of information in the current era, but also stressed its centrality to *ongoing* developments, arguing that information and communications are foundational elements of established and familiar capitalist endeavour.

There is a widespread belief that Marxists hold to and propagate an outdated creed. This is surely the case when it comes to politics proper, notably the advocacy of Communism. The disasters that have resulted whenever Marxists have taken power – in terms of democracy, the diminishment of economic efficiency and the sheer waste of human life – are more than enough to quash the commitment of any but the most blinkered. Marxist politics, to paraphrase Karl Marx, are indubitably a ‘dead dog’. However, dismissal of Marxist politics is one thing; to reject the contribution of Marxism to our understanding of the workings of the world is another matter.

There is another point to add. Marxists do insist on the continuing contribution of capitalist principles in shaping how we live, but it is folly to deduce from this that they contend that little has changed this past century. Readers stuck with the supposition that Marxists believe things are much the same as in 1900 will be surprised to find in Herbert Schiller a Marxist thinker who conceded, even stressed, that we are living in an era in which ‘the production and dissemination of . . . “information” become major and indispensable activities, by any measure, in the overall system’ (Schiller, 1976, p. 3).

Perhaps this presumption tells us only that there is a good deal of misunderstanding about Marxian scholarship. To be sure, such thinkers do insist on the resonance of familiar themes in social analysis, but there is among them a group of commentators deeply aware of trends in the information domain. Led by Herbert Schiller (who himself followed in the footsteps of Canadian Dallas Smythe [1907–92]), thinkers such as Peter Golding, Graham Murdock and Nicholas Garnham in Britain, Cees Hamelink in the Netherlands, Armand Mattelart in France, Christian Fuchs from Austria, Kaarle Nordenstreng in Finland, and Robert McChesney, Doug Kellner, Vincent Mosco, Gerald Sussman and Stuart Ewen in North America, offer systematic and coherent analyses of advanced capitalism’s reliance on and promotion of information and information technologies. As such, these Marxist-informed accounts achieve more than enough credibility to merit serious attention.

Herbert I. Schiller (1919–2000) was the most prominent figure among a group of Critical Theorists (something of a euphemism for Marxist-influenced scholarship in North America, but also a sign of dissociation from what most of them regarded as the abhorrent politics of Communism) commenting on trends in the information domain during the late twentieth century. Like Daniel Bell, Schiller was a New York-raised intellectual who came of age in the 1930s. However, unlike so many of his contemporaries from that city and its educational forcing house City College (CCNY), Schiller did not mellow politically as he aged (Bloom, 1986). He was radicalized by the slump of the inter-war years, during which his father, a jeweller, was unemployed for a decade, and by experiences with the military in North Africa and Europe between 1943 and 1948. Though he had been raised in a one-bedroom apartment, Schiller was deeply shocked by the acute deprivation he saw in Morocco and Algeria, while in Germany he – a secular American Jew – had been repelled to see US and British officials excuse and often reinstate Nazis to positions of power as anti-Communist sentiment grew and the promise to punish miscreants took a back seat to containing the Soviet threat from the East. Herbert

Schiller remained a man of the Left in his adult life. Throughout he kept a keen eye out for conditions in what came to be called the ‘Third World’, those places where the majority of humanity live out their lives, generally in or close to poverty, and his experiences in Berlin left him sceptical of US governments’ repeated claims to be acting honourably at home and abroad (Maxwell, 2003).

Schiller was teaching at the Pratt Institute during the 1950s while studying for his doctorate, which he completed only in 1960 when he was almost forty years of age. At this time he had a young family and McCarthyism was raging, so a low profile was essential if he wanted to keep working. However, though he published his first book as late as 1969 and began to teach in the information and communications field only a couple of years earlier, he has had a marked effect on perceptions of the ‘information age’. Not least, this has come about from his conscientious attendance at conferences and meetings around the world, where his memorable oratorical and debating skills were shown on a wide stage. Tall and angular, Schiller’s sardonic wit and fluency, delivered in an unmistakable New York accent, impressed many who saw and heard him. His influence also stemmed from a regular output of books and articles, among the most important of which are *Mass Communications and American Empire* (1969), *The Mind Managers* (1973), *Who Knows?* (1981), *Information and the Crisis Economy* (1984) and *Culture Inc.* (1989). In addition, much of his impact must be a consequence of the fact that he highlighted in his work issues that Information Society enthusiasts tend to overlook or understate – the poor, disadvantaged locations outside Europe and North America, and the powerful in society and the ways in which they operate to continue in their privileges.

Political economy

Herbert Schiller was trained as an economist, though he became a Professor of Communications at the University of California, San Diego (UCSD) in 1970, where he remained until his death almost thirty years later. He had moved to the University of Illinois Urbana for a short while in the late 1960s, but the then newly established UCSD attracted him (UCSD is now ranked among the top world universities). It had promise of boldness and several notable faculties, which included the exiled German philosopher Herbert Marcuse, one of the few Frankfurt School thinkers who, having been driven abroad by Hitler’s Nazis in the 1930s, did not choose to return to Germany after the war. This background and interest, combined with his own radical dispositions, are reflected in Schiller’s central role in developing what has come to be known as the ‘political economy’ approach to communications and information issues. This has a number of key characteristics (cf. Golding and Murdock, 1991), three of which seem to me to be of special significance.

First, there is an insistence on looking behind information, say in the form of newspaper stories or television scripts, to the *structural* features that lie behind these media messages. Typically these are economic characteristics such as patterns of ownership, sources of advertising revenue and audiences’ spending capacities. In the view of political economists these structural elements profoundly constrain, say, the content of television news or the type of computer

programmes that are created. Put bluntly, if one wants to understand why newspapers and television produce particular content, the advice of Schiller is that one ought not to start with an analysis of journalists, editors or scriptwriters. Better far to ask: who owns the operation? What are the priorities of the business? Where does it make its money?

Second, 'political economy' approaches argue for a *systemic* analysis of information/communications. That is, they are at pains to locate particular phenomena, say a cable television station or a software company, within the context of the functioning of an entire socio-economic system. As we shall see, this is capitalism, and political economists start from, and recurrently return to, the operation of the *capitalist system* to assess the significance and likely trajectory of developments in the information realm. Another way of putting this is to say that the approach stresses the importance of *holistic* analysis, but, to pre-empt critics charging that this is a closed approach where, since everything operates in ways subordinate to the overall 'system', nothing much can change, a third major feature comes to the fore. This is the emphasis on *history*, on the periodization of trends and developments. Thus political economists draw attention to the import of different epochs of capitalist development and the particular constraints and opportunities they evidence.

This latter is manifest in the work of Schiller, who is especially concerned with contemporary trends in communications. His starting point is that, in the current epoch of capitalism, information and communication have a pronounced significance as regards the stability and health of the economic system. Indeed, echoing a seminal essay of Hans Magnus Enzensberger published in the early 1960s, Schiller and like-minded thinkers regard 'the mind industry' as in many ways 'the key industry of the twentieth century' (Enzensberger, 1976, p. 10). This is a point that Herbert Schiller frequently affirmed, for example:

There is no doubt that more information is being generated now than ever before. There is no doubt also that the machinery to generate this information, to store, retrieve, process and disseminate it, is of a quality and character never before available. The actual infrastructure of information creating, storage and dissemination is remarkable.

(Schiller, 1983a, p. 18)

Of course, this is also a starting point of other commentators, most of whom see it as the signal for a new sort of society. Schiller, however, will have none of this. With all the additional information and its virtuoso technologies, capitalism's priorities and pressures remain the same. Thus:

contrary to the notion that capitalism has been transcended, long prevailing imperatives of a market economy remain as determining as ever in the transformations occurring in the technological and informational spheres.

(Schiller, 1981, p. xii)

It is crucial to appreciate this emphasis of Marxian analysis: yes, there have been changes, many of them awesome, but capitalism and its concerns remain constant

and primary. For instance, Douglas Kellner (1989b) acknowledges that ‘there have been fundamental, dramatic changes in contemporary capitalism’ (p. 171). He favours the term ‘techno-capitalism’ as a description of the period when ‘new technologies, electronics and computerisation came to displace machines and mechanisation, while information and knowledge came to play increasingly important roles in the production process, the organisation of society and everyday life’ (p. 180). However, these novel developments neither outdate central concepts of Critical Theory nor displace established capitalist priorities. Indeed, continues Kellner, the system remains fundamentally intact, and, as such, terms used by an earlier generation of Marxist scholars (class, capital, commodification and profit) are still salient (Kellner, 1999). In fact, they are arguably of greater value since at the present time information and communications developments are so frequently interpreted, as we have seen, as representing a break with previous societies. Contesting writers whose concern is to identify a ‘post-modern’, ‘post-industrial’ or ‘post-Fordist’ society in the making, thinkers such as Kellner find the contribution of long-held Marxist concepts particularly helpful as ‘an alternative to all post-capitalist social theories’ (1999, p. 177).

An integral element of Marxian concern with the significance of capitalism’s imperatives for the information domain is the role of *power*, *control* and *interest*. In the mid-1970s Herbert Schiller insisted that the ‘central questions concerning the character of, and prospects for, the new information technology are our familiar criteria: *for whose benefit and under whose control will it be implemented?*’ (Schiller, 1973, p. 175). These remain central concerns for like-minded scholars, and characteristically they highlight issues which recurrently return us to established circumstances to explain the novel and, as we shall see, to emphasize the continuities of relationships which new technologies support. For instance, typically Schillerish questions are: who initiates, develops and applies innovative information technologies? What opportunities do particular people have – and have not – to access and apply them? For what reasons and with what interests are changes advocated? To what end and with what consequences for others is the information domain expanding? These may not appear especially unsettling questions, but when we see them attached to other elements of Critical Theorists’ analysis we can much better appreciate their force.

Key elements of argument

In the writing of Herbert Schiller there are at least four arguments that are given special emphasis. I signal them here and expand on them later in this chapter. The first draws attention to the pertinence of *market criteria* in informational developments. In this view it is essential to recognize that the market pressures of buying, selling and trading in order to make a profit decisively influence information and communications innovations. To Schiller (and also to his wife of more than fifty years, Anita, a research librarian who examines informational trends) the centrality of market principles is a powerful impulse towards a second major concern, the *commodification* of information, which means that it is, increasingly, made

available only on condition that it is saleable. In this respect it is being treated like other things in a capitalist society: 'Information today is being treated as a commodity. It is something which, like toothpaste, breakfast cereals and automobiles, is increasingly bought and sold' (Schiller and Schiller, 1982, p. 461).

The third argument insists that *class inequalities* are a major factor in the distribution of, access to and capacity to generate information. Bluntly, class shapes who gets what information and what kind of information they may get. Thereby, depending on one's location in the stratification hierarchy, one may be a beneficiary or a loser in the 'information revolution'.

The fourth key contention of Herbert Schiller is that the society that is undergoing such momentous changes in the information and communications areas is one of *corporate capitalism*. That is, contemporary capitalism is one dominated by institutions that have particular characteristics. Nowadays these are concentrated, chiefly oligopolistic – rarely monopolistic – organizations that command a national and frequently international reach. If one wishes to picture this, one has but to imagine, say, the clutch of oil companies which dominate our energy supply: Shell, BP, Exxon, Texaco and a few others are huge, centralized enterprises, though they also have enormous geographical spread, linking across continents while also reaching deep into every small town and sizeable village in the advanced nations. Much the same goes for computers, finance, retail, airlines . . .

To the Critical Theorist, modern-day capitalism is of this kind: wherever one cares to look, corporations dominate the scene with but a few hundred commanding the heights of the economy (Trachtenberg, 1982; Barnett and Müller, 1975). For this reason, in Herbert Schiller's view, corporate capitalism's priorities are especially telling in the informational realm. At the top of its list of priorities is the principle that information and ICTs will be developed for *private* rather than for public ends. As such it will bear the impress of corporate capitalism more than of any other potential constituency in contemporary society.

Clearly these are established features of capitalism. Market criteria and class inequalities have been important elements of capitalism since its early days, and even corporate capitalism has a history extending well over a century (cf. Chandler, 1977), though many of its most distinctive forms appeared in the late twentieth century. But to Herbert Schiller this is precisely the point: the capitalist system's long-established features, its structural constituents and the imperatives on which it operates are the defining elements of the so-called Information Society. From this perspective those who consider that informational trends signify a break with the past are incredible, since, asks Schiller, how can one expect the very forces that have generated information and ICTs to be superseded by what they have created? Far more likely to anticipate that the 'information revolution' does what its designers intended – consolidates and extends capitalist relations.

What we have here is a two-sided insistence: the Information Society reflects capitalist imperatives – i.e. corporate, class concerns and market priorities are the decisive influences on the new computer communications facilities – and, simultaneously, these informational developments sustain and support capitalism. In this way Schiller accounts for the importance of information and ICTs in ways which at once identify how the history of capitalist development has affected the

informational domain and, at the same time, how information has become an essential foundation of that historical development.

Transnational empire

We may get a better idea of how Schiller saw things if we take time to review his views on the development of capitalism during the twentieth century. He was particularly alert to the fact that as corporate capitalism has grown in size and scope, so too has it created what might be called a *transnational empire*. That term may appear too strong because of its imperial connotations, yet it is surely unarguable that during the twentieth century we witnessed the construction of a global marketplace and, with this, the worldwide expansion of especially US corporations (but also, of course, European and Japanese). A moment's thought makes this evident enough: the automobile industry is today a global activity in which the likes of Ford, General Motors and Nissan are prominent; computers mean IBM and a cluster of smaller (but still huge) companies like Digital Equipment, Dell and Apple; telecommunications mean AT&T, ITT and similarly positioned and privileged giants.

Information and its enabling technologies have been promoted by, and are essential to sustain, these developments in several ways. One stems from the fact that corporations that roam the globe in pursuit of their business require a sophisticated computer communications infrastructure for their daily activities. It is unthinkable that a company with headquarters, say, in New York could co-ordinate and control activities in perhaps fifty or sixty other countries (as well as diverse sites inside the United States) without a reliable and sophisticated information network. Indeed, transnational corporations route hundreds of thousands of telecommunications data and text messages every day in their routine operations. Further, information networks are crucial not only within particular corporations, but also to knit together the business services that are essential for the operation of a world market. Not surprisingly, international financial networks are to the fore in the informational realm (Hamelink, 1982).

To Herbert Schiller this indicates ways in which information is subordinated to corporate needs, but a less committed observer might argue that the 'IT revolution' took place and just happened to suit corporate concerns, albeit that over the years there has come about a corporate dependence on information networks. However, there are two objections to this line of reasoning. The first, as we shall see below, is that the information flowing within and between sites is of a particular kind, one that overwhelmingly expresses corporate priorities. The second, and this is related to the first, comes from his elder son, Dan Schiller (1982, 1999), when he argues that the genesis of the computer communications network – its locations, technical standards, pricing practices, access policies – characteristically have prioritized business over public interest criteria. In other words, Dan Schiller's accounts of the history of information networks reveal that corporate concerns have shaped its evolution, while establishing it as a focal point of capitalist operations. Information was thus developed to suit corporate interests, though in the process corporations have become reliant on information flows.

It is worthwhile sketching Dan Schiller's thesis since it underlines this mutuality of information and corporate activities. He describes the expansion of telematics (computer and communications facilities) in three realms: within the domestic American market, for transnational communications and in areas in which the US government has played a leading role. Schiller traces the growth of telematics on a template of the expansion and dispersal of US business. It was, he contends, unthinkable that information networks would not be created because corporate aggrandizement had such a pressing need for them. As corporations grew in size, and as they advanced their subsidiaries within, and later without, the United States, 'only telematics could control and unify the complex industrial and commercial operations thereby engendered under centralized corporate demand' (Dan Schiller, 1982, p. 4). From the early days communications facilities were guided in favoured directions by corporate interests that assiduously lobbied to ensure services developed in forms which were most beneficial to themselves. Thus, argues Schiller, 'business users demanding advanced telematics services have mustered policymakers' support effectually, so as to enhance their private control over not merely information technology – but our economy and society as a whole' (p. xv). For instance, Schiller demonstrates that the most intense pressure to break up the 'natural monopoly' over domestic telecommunications in the United States held for generations by AT&T (the Bell system), and with it to end the 'universal service' ideal that accompanied the granting from government of its monopoly privileges and which was pursued by cross-subsidization of services, emanated from corporate users demanding enhanced communications services (especially to handle data and text) at least cost to themselves. In this way Schiller discerns the reshaping of US domestic communications as one taking a form favoured by private corporations whose 'struggle for command over the evolving direction and shape of the national telecommunications infrastructure' (p. 61) almost entirely excluded consideration of public needs.

Comparable processes are evident on the international front. Transnational corporations must have information networks and they will insist that these are designed to and operate on corporate specifications. Hence private corporations, led by American concerns, have lobbied in Europe to supply a communications network that can supply the enhanced services they require – on their terms. A difficulty here has been the long-established European habit of publicly owned and monopolistic communications systems. Against this, no groups have pressured so hard for liberalization, deregulation and privatization as have large transnational corporations. They have been rewarded by the increasingly open and business-oriented services that have come on stream.

Another way in which the information arena has been developed to further the goals and interests of transnational capitalist enterprise, while it has in turn become essential to sustain capitalism's health, is as a mechanism for selling. Herbert Schiller attests that the vast bulk of media imagery produced is made available only on market terms and is simultaneously intended to assist in the marketing of, primarily, American products. Thus the television productions, Hollywood movies, popular music – the entertainment industry *tout court* in which the United States plays the leading part (Tunstall, 1977) – is organized on a

commercial basis and functions to facilitate the marketing of goods and services. On the one hand, this is manifested in the construction of channels only where there is a viable commercial opportunity and in the supply of programming on the basis of commercial criteria – most commonly a sufficiency of advertising revenue. This leaves its impress on content, resulting in a preponderance of sensationalist and action-packed adventures, soaps and serializations, sports and more sports, intellectually undemanding and politically unthreatening programming, all of which is aimed to command the largest possible audience ratings of the sort that most appeals to advertisers and corporate sponsors.

On the other hand, the global marketing of, say, Levi Jeans, Coca-Cola drinks, Carlsberg beer, Ford cars or Tommy Hilfiger fashions would be hard to imagine without the informational support of the mass media system (Janus, 1984). As far as Herbert Schiller is concerned this is of the deepest consequence. Indeed, it is the starting point of any serious understanding that American media, themselves a part of the spread of corporate capitalism, should be expected to laud the capitalist way of life – hence the beautiful homes depicted in so many programmes, the plethora of celebrities, the desirable clothing, drinks, leisure pursuits, the enviable lifestyles and opportunities. To be sure, some popular programming does suggest a seamier side to contemporary America (e.g. in lauded series such as *The Wire* and *Homeland*), but still they appear to retain a glamour and excitement that demonstrates something profoundly admirable to watchers in Seoul, Manila or Sao Paulo. That is, a primary aim of US media is not to educate the Indonesian, Italian or Indian in the mysteries of *Dallas*, *ER*, *The Sopranos*, *Bonanza* or *Friends*; rather, it is ‘to open up markets and to get as large a chunk of the world market as possible’ (Schiller, 1992, p. 1).

From this point of view, the question ought not to be the lament, ‘Why can’t all television programming reach the standard of, say, the splendid documentaries on the Vietnam War or the legacies of slavery we have seen?’ The central issue is, rather, that, given the imperatives – preordained by structural features of contemporary capitalism – to *sell and assist in selling*, we are only to expect the sort of *infotainment* that predominates in the mass media. Indeed, given the role of mass media to extend and perpetuate the market system, a key question might be: why is any programming of minority interest, of intellectual difficulty or of challenging critique made available?

Herbert Schiller has been dead for over a decade so he is not in a position to comment on more recent trends. However, he would not have been surprised by the spread of ways to increase *selling* during the twenty-first century. These extend, with the aid of new media, market practices, extensively (across borders into disparate regions) and intensively (deeper into private domains, especially the home). Critical Theorists such as Robert McChesney (2013) have underscored how this growth of selling is accompanied by the priorities of private and corporate interests. In a forceful article, John Bellamy Foster and McChesney (2011) challenge this spread on grounds of efficiency, arguing that public wealth can be reduced by an overemphasis on private benefit. They observe the internet started out with funding from the state, notably the US National Science Foundation, and that it was from the outset a non-commercial venture. However, seeing commercial possibilities, in the late 1990s private corporations entered the area and shifted the direction of the internet’s development.

Foster and McChesney's view that this leads to inefficiencies gains support from what they refer to as the Lauderdale Paradox. This has it that, when certain resources are made available strictly on market terms (ability to pay profit-seeking organizations) some sections of society are excluded because they cannot afford the product and thereby collective efficiency (public wealth) is eroded. Earl Lauderdale (1758–1839) had formulated this idea in the early nineteenth century with reference to essentials such as water and roads. The core notion is that if such are arranged as private businesses owners seek to maximize returns on their investment, which in turn means that pricing marginalizes some people. However, in endeavouring to maximize their private assets, purveyors of potable water may inadvertently damage public wealth, since those excluded by price may then use alternative sources of poor quality water. An unfortunate consequence is that illness is likely to arise and spread (dysentery is no respecter of money) from drinking polluted water, which then means some people are incapacitated, unable to work and often a cost to others, and this leads to reductions in overall public wealth. The logical conclusion is that sanitary water might best be supplied to everyone from the exchequer as a right so that society might overall thrive. A similar point might be made with regard to road transport. As private assets, tolls of some sort will be charged for their use, which will be to the advantage of the holder of that asset, but public wealth may be less optimal when those unable or unwilling to pay the requisite fees either neglect or do not use the roads. Materials and people then become delayed and inconvenienced, and, as a whole, public wealth is reduced. In short, the making available to all of potable water and good quality transit through public ownership can increase public wealth.

Foster and McChesney (2011) apply this logic to the internet. As a private asset from which owners seek to benefit personally, prices for access will be set at a level that allows them to maximize returns on their asset. Suppliers of interconnections will set prices at a level that optimizes returns, web-based services will do the same and so on. That is what commerce does: endeavours to set a price that benefits the owner and appeals to the customer. Too cheap a price and customers are happy but the owner is under-utilizing his resource; too high a price and lots of customers are unable to afford it. Whatever the price, Foster and McChesney contend that some people will be excluded from adopting the internet if it is left to commerce. For many this will be a choice, but for others it will be that they lack the ability to pay the market rate. This being so, runs the argument, the excluded minority present obstacles to a smooth-running society that relies heavily – and will do so increasingly – on information networks to do work, banking, education and even democratic participation. In a wired society, the internet is an essential as much as potable water, garbage collection and transit. The best solution, opine Foster and McChesney, is to provide free universal access to the internet as a right of citizenship, not least because public wealth will be increased by enabling people to get on with a full range of activities that are now reliant on there being available ubiquitous digital connectivity.

Unfortunately, in the view of Foster and McChesney, commercialization of the internet is continuing apace and making this prospect unlikely. Certainly it is hard to ignore ways in which the internet has become a vehicle for better marketing

to customers as corporate interests protrude. The endless advertisements, insistent emails, special offers . . . To be sure, there are spaces on the internet where public access and public information is unrestricted (though users still require a PC and/or smart phone and a service provider, each of which is made available on payment of a fee to private suppliers). However, commerce has undoubtedly been the major force behind the internet's development this century.

The remarkable exception to this, illuminating in its singularity, is the making available of the World Wide Web (www) by its inventor, Tim Berners-Lee, without a demand for royalties on his creation. Berners-Lee's commitment to 'connectivity without strings' via www's hyperlinks is at odds with the dominant presence of commercial principles and stands in marked contrast to most other computer communications innovators (e.g. Bill Gates of Microsoft, Mark Zuckerberg of Facebook, and Larry Page and Sergey Brin of Google), who have been eager to maximize returns to their corporations. To comprehend the issue, because so often commercial practices appear to be a given, something that naturally goes with the territory, imagine that every time one entered a www prefix users were liable to a charge that would go to Sir Tim's private account.

More and more, the internet is being used to gain leverage over users the better to sell. It is of course acknowledged that services such as Facebook are offered free to users. However, this is because with these services the *user is the vendible product*, subject to be tracked, profiled and sold on to the advertiser or corporations on the basis that the information so collected presents marketing opportunities (Pariser, 2011). Every click made on the internet leaves a trace (time spent on sites, purchases made, the searches one undertakes, web sites visited) and 'cookies' are there to ensure that every piece of information is aggregated, the better to ensure that users can be scrutinized and categorized and sold on as potential customers. Think, in this respect, of Amazon's suggestions made to users that are composed on the basis of previous searches and purchases, of the targeted messages one receives from retailers having bought products through the net or of the personalized advertisements that pop up on one's e-mail account each time one opens it. The *New York Times* reported (10 March 2008) that the five largest web operators (Google, Yahoo, MySpace, AOL and Microsoft) record at least 336 billion transmission events in a month. This scale of aggregation and the scope for data mining is hard to grasp and has major consequences for privacy, though here I stress how it extends market practices in the development of the internet. For sure, much of social media is presented as a free good as software packages, and entry is free on registration of personal details. However, there must be no doubt that users pay for these facilities by being transformed into products. They must be so because the corporations behind the products have to monetize their investment.

These are instances of the spread of marketing into once private spheres. Adopters of social media, loyalty cards or simply users of a search engine, pleased to get a free application or credit points or a presence on a social media site, become either the vendible subject or the customer to be targeted more assiduously than before, or both. Of course the companies involved provide assurances of privacy and enter the realm proclaiming that they do so only to achieve 'better

communications with customers'. Nonetheless, anxieties about intrusions into personal lives and the harvesting of information on a mammoth scale remain. Many fear the state for its surveillance systems, but commercial organizations also hold prodigious amounts of personal information that are used for purposes of squeezing more return from investment. Moreover, commercialization extends surveillance beyond prospective and actual customers to monitoring of its own operatives. Each keyboard struck, each online order processed, the time each worker takes to complete a given task, all this becomes subject to scrutiny and analysis courtesy of the same computer communications systems that track the wider public.

Herbert Schiller emphasized associated ways in which informational trends both reflect the priorities of capitalism and support its continuation in that they provide *ideological* expression of the values and worldview of the core capitalist nation, the United States. Of course this is a close cousin to the function of selling. In so far as the images the media produce act as stimulants to buy the things corporations manufacture, to a very large degree they will give succour to the capitalist system as a whole. Celebration of the lifestyle of consumerism also provides broad ideological support for the capitalist nations.

However, Herbert Schiller (2000), while certainly not ignoring this contribution of mass communications to American ideological domination, also highlights some rather more direct ways in which mass media, overwhelmingly emanating from the United States, give ideological support to its transnational empire. One key way stems from the prominent position enjoyed globally by the United States in the production and distribution of news. Being the major source of news reporting, it is perhaps not surprising that American media (followed by the British and one or two other nations which share its patterns of economic organization and political outlook) reflect the concerns of the home nation. The upshot is that 'free enterprise', 'free trade' and 'private ownership' are phrases widely used and conditions frequently advocated in the news services. Similarly, 'economic health' and 'industrial success' are defined by the terms and conditions prevailing in the capitalist economy – thus 'competition', 'markets' and 'business confidence' are terms unproblematically adopted to depict what are presumed to be the normal and desirable condition.

More important, perhaps, world events and trends are covered from a distinctively metropolitan – usually American – perspective. Nations are examined in the news only to the degree to which events there have some observed consequence for the United States – unless a disaster is of such proportions that it commands the news by virtue of its drama. For example, late in 1993 Somalia – a country in the Horn of Africa that few Americans would be able to locate readily on a map – was prominent in US media because several American troops had been killed there by local militia. Similarly, Middle East affairs receive coverage chiefly when there is a crisis with major implications for the United States and its allies.

Meanwhile, locations such as India, Africa and China (home to over half the world's people) command coverage most often because of traumatic events, typically earthquakes, floods and famines that bring about thousands of casualties and are often occasions for mobilization of international aid. What alters this framework is when something happens with major implications for the United

States, as, for instance, early in 2001 when the Chinese grounded a US spy plane. The 'Hainan Island Incident' involved a mid-air collision between a US Navy intelligence aircraft with twenty-four crew aboard and a Chinese fighter jet. The naval plane was forced down by Chinese jets, but in the process a People's Republic pilot was killed when his plane was disabled. When this occurred China was headline news for several days that month of April as efforts were made to refute the charge that they were spies and negotiate the safe return of the American servicemen. Coverage of the Iraq invasion in early 2003 and the subsequent occupation display similar features. Despite overwhelming opposition around the globe that was reflected in a range of media, US news coverage was noticeably supportive and uncritical of the American-led war (Tumber and Webster, 2006, ch. 4), rarely providing space to the widespread dissent evident worldwide (Massing, 2003, 2004a, 2004b; Gillan *et al.*, 2008; Arsenault and Castells, 2006).

Connectedly, 90 per cent of international news published by the world's press comes from but four western news agencies, two of which are American (United Press International [UPI] and Associated Press), one British (Reuters) and the other French (Agence France Presse). These reflect their bases' concerns: for instance, UPI devotes over two-thirds of its coverage to the United States but under 2 per cent to Africa. With such an imbalance of coverage, America (and the Western nations more generally) does not need messages such as 'West is best', 'the American Way' or 'support capitalist enterprise' for this to be functional. It is enough that the media provide an overwhelmingly Western viewpoint on events, an agenda of items which is metropolitan in focus, with the rest of the world covered primarily as a location of 'trouble' (mainly when that has implications for the dominant nations) such as 'war', 'coup d'état', 'disaster', 'drought' and so on. Hitting the news of the world as 'problems', they readily come to be presented both as dismayingly unreliable and prone to dramatic acts of violence or as subjects to be pitied when hit by yet another cyclone, volcanic eruption or crop failure. Far too often they appear, in the words of John Pilger, which echo the sentiments of Herbert Schiller, as 'merely mute and incompetent stick figures that flit across the television screen. They do not argue or fight back. They are not brave. They do not have a vision' (Pilger, 1991b, p. 10). In sum, they do not seem 'real people', at least not 'people like us', an appearance useful to sustain the belief that the advanced capitalist societies (with 25 per cent of world population and around 80 per cent of total wealth) are the really 'normal'.

In addition, while this refers to Western, especially American, news media's world dominance, we ought not to forget the technological superiority it also enjoys (in satellites, telecommunications, computers, etc.), which provides an insuperable advantage in supporting its perspectives. This combines with American primacy in the entire range of entertainment: the movies are American, the television is American and so too is much of the music business. It is the Western capitalist societies that have the finance for the films, the resources for putting together a global marketing campaign, the capability to create, store and distribute hours of soap operas. It can be conceded that the ideology of messages in this area is frequently unclear, occasionally nuanced and at times even contrary to the espoused aims of private capital.

Nonetheless, what is surely hard to dispute is that, in the round, the messages of American entertainment, whether it be *Little House on the Prairie*, *I Love Lucy* or *Friends*, are supportive of the United States' self-perception as a desirable, indeed enviable, society which other nations would do well to emulate. Examples abound: take, for instance, the movie *Argo*, released late in 2012 and winner of Best Picture Oscar in 2013. Directed by actor Ben Affleck, it tells the story of the rescue of six American diplomats who were missed when Iranian revolutionaries stormed the US Embassy in 1979. It is a classic tale of deception and bluff, in which a CIA operative poses as a movie producer to effect the escape. *Argo* is well made and gripping, with lots of action and psycho-drama. It is fast-paced and edgy, and at its centre is an established 'star', Ben Affleck himself. However, it is cavalier with historical circumstances (the Canadian role is understated, while that of the CIA is overplayed and British assistance is overlooked) and stereotypes Iranians as irrational, slow witted and impulsive. Conversely, the Americans are ingenious, bold and good hearted, and calm under pressure. Such is a mix that appeals to American sentiments that are deeply suspicious of Iran, its people and its role in the Middle East. Another lauded 2012 US movie, *Zero Dark Thirty*, directed by Kathryn Bigelow, is a thriller 'based on a true story', the hunt for and eventual killing of Osama bin Laden in May 2011. It is an action adventure film, framed in terms of just revenge for the instigator of 9/11, with the CIA operatives presented as heroes. It contains terrific camerawork, an array of high technology equipment and uses dramatic licence that blurs fact and fiction to apparently condone torture of prisoners (since the 'water boarding' torture yields vital information on bin Laden's whereabouts). It never deviates from US-centric concerns that flatter the American military, and justifies extra-territorial execution.

This was the perception of Herbert Schiller, a man fiercely critical of American power and one who was among the most determined advocates of a *new world information order*. From the premise that underlying the media representations lie unequal structural relationships which divide the world's populations, Schiller's position logically follows. Speaking in France in May 1992, he called attention to 'the continuing growth in the gap between the rich and the poor countries'. In his view this 'issue of global disparity' stems from the domination of the world's economies by Western capitalism, and he is convinced that the Western media aid this domination by supplying supportive ideas and images (Schiller, 1992, p. 2).

To Schiller a requisite of giving voice to the poorer nations' struggles to improve their lot is to challenge 'information imperialism'. The world's information environment overwhelmingly emanates from the Western nations, especially the United States (McPhail, 1987). News, movies, music, education and book publishing are criticized as a 'one-way street' (Varis, 1986; Nordenstreng and Varis, 1974). Even non-radical analysts accept that there is a 'media dependency' (Smith, 1980) on the West, and there are also a good many non-Marxian thinkers who are concerned about this situation and its possible consequences. In France, for instance, there is a long tradition which protests about the threat to cultural integrity from a preponderance of American-made media produce (Servan-Schreiber, 1968). And this is not exceptional since, as Dyson and Humphries (1990) observe, there are 'many Western European broadcasters and policy-makers [who have] feared the loss of European cultural identity by "wall-to-wall Dallas"' (p. 19).

To Herbert Schiller all this constitutes ‘cultural imperialism’, an informational means of sustaining Western dominance especially in economic and political affairs (Tomlinson, 2002). He advocated a challenge to this ‘imperialism’ on all fronts – hence the call for a ‘new world information order’ (NWIO), which has had a marked effect in UNESCO (Nordenstreng, 1984) and which led to the United States’ withdrawal from that organization when it leaned towards support for such a policy (Preston *et al.*, 1989). Looking back from 1989 on the debates within UNESCO, Schiller (1989b) reviewed the history of the movement for a new world information order and in doing so made clear his own perspective on the present information environment. The NWIO, he said, was

an effort . . . to gain some control over the information directed at their [Third World] countries and to regain control of their national cultures. They wanted to define their own questions and present for themselves a different image of their lives. All of that has been totally distorted in the West. The demand for a new international information order was presented in the West exclusively as an effort by third world dictators to enslave their peoples by suppressing all free-flowing Western ‘enlightenment’. Clearly there were some authoritarians at work in some of these countries, but to place the entire movement in that category is just a blatant distortion. At the moment this call for a new information order is very much in eclipse. But we do have a new order all the same – the transnational information order.

(Schiller, 1989b: 16)

Media corporations

It will be evident that this Marxian account from Herbert Schiller gives much weight to the influence of the spread of corporate capitalism on the informational environment, domestically and internationally. However, it should be emphasized that we are not simply identifying here a pressure from without which bears down on the information domain. Quite the contrary, the maturation of corporate capitalism has been a process of which the information industry has been an integral and active part. Hence the history of the spread of corporate capitalism has also been a history of the spread of media corporations. And, just like corporate capitalism as a whole, media corporations have expanded in size, concentrated in numbers, frequently diversified their interests and moved decisively on to an international stage.

Thus, on a global as well as a national stage, a few giant corporations form a dominant if competing oligopoly across television, newspapers, film, publishing and, increasingly, internet-based platforms. Prominent players are the Walt Disney Corporation, Viacom, Bertelsmann, Times Warner and News Corporation. Taking the latter as an example, this Murdoch family-owned company manifests traits characteristic of the rest. In terms of size it is second in terms of revenue only to Disney worldwide and is far and away the biggest media presence in Britain after the publicly owned BBC (an organization News Corporation leaders loathe).

Its 2012 revenues totalled \$34 billion and its locus is in the US, UK and Australia, but it has large and expanding interests in India and the Far East.

News Corporation is vertically and horizontally integrated, able to create and distribute news, books, film, cable and television entertainment and more through its subsidiaries such as 20th Century Fox, Fox News and Sky. In newsprint it owns titles ranging from the tabloid *Sun* and *New York Post* to the London *Times* and *Wall Street Journal*. However, print is a small and declining percentage of its revenue and there are signs that News Corporation was preparing to switch predominantly to digital from late 2012. This will follow a restructuring that will allow Fox Group to manage entertainment interests and leave the smaller News Corp. in charge of news. Octogenarian Rupert Murdoch, who built the company from the foundation of his father's modest media interests, will remain chief executive of the Fox Group.

The Murdoch family owns a 30 per cent controlling interest of the current News Corporation. Rupert is Australian by birth and schooling (though his degree is from Oxford), but he took American citizenship in 1985 to further the company's interest (only US citizens are permitted to own American television stations). Several of his children, notably James, are key players in the company and are set to inherit powerful positions. Much comment about News Corporation worries about its biases in news, to which the company responds by lauding the contribution of Sky News, its rolling news outlet that began in 1989 and has a credible reputation for impartiality and works within UK broadcasting regulations requiring neutrality (the press are not so constrained and all his major titles are highly conservative).

It is important to emphasize that the chief goal of News Corporation is profit, hence the 2012 proposed reorganization that will make Fox Group the most important element of the group. The company's growth has been dependent on entertainment, especially its television coverage of sport, particularly soccer, where BSkyB has been enormously influential. The strategy of switching to digital will be built on its entertainment foundations, since here lies the key to continuing financial success. However, as Schiller would undoubtedly have observed, entertainment is not entirely separated from politics. Tabloid media, for instance, with the stress on celebrity, sex and scandal, often allies this coverage with populist and conservative politics.

Certainly the Murdochs are vigorously pro-market, anti-regulation and in favour of free trade. While the stress is generally on 'business first', there are well-attested statements of support for Margaret Thatcher's militant pro-capitalism over the years, and on her death Rupert Murdoch (2013) wrote in the *Times* that she had been 'an inspiration in my business life'. The distinguished former editor of the *Times* and before that the *Sunday Times*, Harold Evans (1984), recollected that Murdoch created 'an aura of "bleak hostility" towards opponents of Margaret Thatcher by persistent derision of them at our meetings and on the telephone, by sending me articles . . . which espoused right-wing views supportive of Mrs Thatcher' (p. 296). More recently, Evans (2011) recalled that, when he was the *Times's* editor, 'my principal difficulty with Murdoch was my refusal to turn the paper into an organ of Thatcherism'.

Perhaps James Murdoch made most clear the ideological outlook of this organization in his 2009 MacTaggart lecture in Edinburgh. In front of an audience of senior television movers and shakers he presented a polemical attack on the BBC – an undoubted hindrance to New Corp.'s interests and ambitions – as a state-sponsored behemoth that posed a threat to liberty. He complained that BBC news was a barrier to the creation of alternative news outlets since it came without a price tag and was free on digital outlets. Few people were prepared to pay when the BBC offered free news, hence to Murdoch it was a blockage to innovation and the pluralism of information this would bring. The BBC thus shackles journalism since state-sponsored news makes it difficult to flourish, especially on the internet. Murdoch, noting that broadcasting was merging into a 'single all-media market', draws a contrast between 'authoritarianism: endless intervention, regulation and control' and 'the free part of the market where success has been achieved by a determined resistance to the constant efforts of the authorities to interfere'. His 'inescapable conclusion' followed: 'The only reliable, durable, and perpetual guarantor of independence is profit' (Murdoch, 2009). In spite of his avowal that profit is unrelated to politics, James Murdoch's lecture underlined that profit to such as he requires a release of state controls (deregulation) and a reduction of public support to media groups (liberalization).

Within these ground rules, News Corporation – as with many other media companies – is prepared to allow some leeway. Hence Rupert Murdoch's support for Tony Blair during his time as Prime Minister (1997–2007). Murdoch may not have liked some of Blair's social democratic policies (Blair, 2010, p.98), but he quickly saw that Blair was warm towards the market system and eager to continue with key parts of Margaret Thatcher's policies as regards the economy.

Moreover, while they represent a relatively diminishing source of revenue, News Corp. is unlikely to abandon its news making and delivery outlets, for the obvious – if often unstated – reason that they can bring prestige and leverage over politics and public policy that can be exercised to further the corporate interest. Most sizeable corporations lobby politicians, but media groups like News Corporation have something lobbyists can only dream of – a direct means of communicating their favoured messages. As Rupert Murdoch told the Leveson Committee 'if any politician wanted my opinions on major matters, they only had to read the editorials in the *Sun*' (Leveson, 2012, vol. 1, para. 2.49). Mr Murdoch testified in 2012 that he had never asked a favour of a Prime Minister, which one may accept at face value. However, as Geoffrey Wheatcroft (2012) pointed out, 'Murdoch did not have to beseech politicians, they came to him, desperate for his support.'

In recent years News International (the publishing arm of News Corp.) has been under pressure from questions regarding media malpractices, notably the illegal hacking of telephones of celebrities, politicians, crime victims, members of the royal family, even relatives of dead British soldiers (Watson and Hickman, 2012). Part of this pressure came from a House of Commons Select Committee investigation that declared 'Rupert Murdoch is not a fit person to exercise stewardship of a major international company' (House of Commons Culture, Media and Sport Committee, 2012). This led to a public inquiry headed by a senior judge, Lord Leveson.

During and without this inquiry it was revealed that a former editor and chief executive of News International, Rebekah Brooks, had close personal ties with the Prime Minister David Cameron and the inquiry investigated the appropriateness of the employment of Andy Coulson, a former Murdoch employee, as Mr Cameron's Director of Communications in 10 Downing Street between 2007 and 2010, a position Doug Kellner (2012) characterizes as the 'Murdoch fox' entering the government 'henhouse' (p. 1175). It also emerged that News International had close relationships with senior police officers, including those charged to investigate alleged malpractices (the head of London's Metropolitan Police Service, Sir Paul Stephenson, resigned over the matter and with him went Britain's former counter-terrorism chief, John Yates). Both Brooks and Coulson are currently under criminal charges of conspiracy to pervert the course of justice, which if they are found guilty usually bring custodial sentences.

From this one might assume Murdoch's influence has waned, but this may only be a temporary setback. Justice Leveson (2012) pinpointed Rupert Murdoch's power when he wrote that this was of a higher order than one which has to request favours directly from prime ministers. As Leveson put it:

It is the 'without having to ask' which is especially important . . . Sometimes the very greatest power is exercised without having to ask, because to ask would be to state the blindingly obvious and thereby diminish the very power which is being displayed. Just as Mr Murdoch's editors knew the basic ground-rules, so did politicians . . . In the discussion with him, politicians knew that the prize was personal and political support in his mass circulation newspapers.

(Leveson, 2012, vol. 3, para. 2.9)

It followed that politicians would be wary of promoting regulation of the press or anything related that might damage Mr Murdoch's commercial interest, since the consequence would be sustained obloquy directed at them and their party. It followed that 'politicians' interests . . . would find themselves highly aligned with Mr Murdoch's' (para. 2.11). Herbert Schiller, were he alive today, would undoubtedly have acknowledged this, insisting that acceptance of the primary importance of corporate interest is the *sine qua non* of any relationships between media magnates and politicians.

Examination of the Walt Disney Corporation, Bertelsmann (Germany's biggest media group) or Gruppo Mediaset (Italy's biggest group, owned by one-time Prime Minister Silvio Berlusconi) would reveal several similar features to those of News Corporation (one trusts that Disney is not so closely associated with illegality as Murdoch and Berlusconi). All are major corporations, part of a privileged oligopoly of information businesses, whose goals are profit, growth and market advantage. As Herbert Schiller would emphasize, these private companies, situated at the heart of corporate capitalism, embrace – with only small degrees of difference – the core values of that system. They recommend the minimal state, urge low taxation, advocate reduced public expenditure (especially on welfare) and insist on the free movement of capital. Of course they adopt computer communications technologies that are requisites of all corporations today. The difference

is that their business is information itself. However, what they generate and distribute is, by and large, at one with the requirements of market society, hence it provides support and succour to arrangements that suit them as well as other corporate players.

Market principles and practices

Thus it is Herbert Schiller's view that the contemporary information environment is expressive of the interests and priorities of corporate capitalism as it has developed over time and an essential component in sustaining the international capitalist economy. The corporate realm ensures that its interests are best served by the information and associated technologies they require to manage and make acceptable their affairs, while core information businesses such as News Corporation have grown in tandem with the aggrandizement of corporate capitalism. Not surprisingly, these latter eagerly embrace and serve to perpetuate the beliefs and practices of that domain. However, there is a good deal more to the Marxian approach to information than this. We will be better able to appreciate the contribution of Critical Theorists if we elaborate on and exemplify ways in which central capitalist concerns make their influence felt on the 'informatization' of society.

It is useful to begin with that key concern of capitalism – the market. Schiller's claim is that market principles, most emphatically the search for profit maximization, are quite as telling in the informational realm as they are throughout capitalist society. As a rule, information will therefore be produced and made available only where it has the prospect of being sold at a profit, and it will be produced most copiously and/or with greatest quality where the best opportunities for gain are evident. It follows that market pressures are decisive when it comes to determining what sort of information is to be produced, for whom and on what conditions.

This pressure is felt even with regard to the pioneering of new technologies. To fully understand the weight of this claim we need to be reminded how common it is for Information Society theorists to argue that innovations in the technological realm herald the 'information age'. From this perspective it is implicit that technologies just 'arrive', having been 'invented' in some unexamined and unproblematic way, and that once inside the social realm they can then be used in either positive or negative ways. Information technologies, from this point of view, are at once decisive in bringing about the Information Society, and simultaneously they are neutral, free from the influence of any human value or sectional interest. Against this, those who contend that the market is the decisive force in capitalist societies insist that the products that become available themselves bear the impress of market values. A startling example of this was provided by the Chairman of Thorn-EMI, then a major British communications and information supplier, when he announced that his company's 'decision to withdraw from medical electronics was [because] there appeared little likelihood of achieving profits in the foreseeable future' (Thorn-EMI, 1980). The company had been a pioneer in CT (computer tomography), producing an EMI-Scanner and funding research on the back of unexpectedly high royalties from pop music in the 1960s. In this

instance the operative value was that Thorn-EMI perceived its interests to be best served by following a strategy whereby it concentrated around consumer entertainment products. Medical electronics were not felt to be supportive of the search for maximum profitability, whereas television, video and other leisure products were – and action was taken by Thorn-EMI to meet the goal of market success.

The corporations that dominate the information industry operate unabashedly on market principles, and to this end they tailor their production to those areas that hold out the prospects of greatest reward. This point – scarcely a contentious one – must, however, confound those who believe that, in the ‘information age’, either information technologies are aloof from social influence, at least in terms of their hardware (after all, goes the refrain, as a PC can be used to write sermons or show pornography, in itself it is neither good nor bad since it is above social value), or more information is intrinsically a good thing (it does appear to be a deep-seated presumption that in and of itself more information is beneficial), or both.

It must be disconcerting because this Critical Theory maxim looks, for example, behind the finished products that reach the market and asks: what were the priorities of the corporate suppliers at the research and development stages? R&D (research and development) budgets, nowadays multi-billion dollar annual commitments from players such as IBM, AT&T and Siemens, are committed to creating the next generation of technologies, but they are not given an open commitment by their paymasters. British Telecom (BT), for instance, spends annually hundreds of millions of pounds on R&D, but this is a carefully targeted investment. Two *Financial Times* journalists, observing that ‘the days of research for its own sake are over’, explained that they are ‘a luxury that a commercially-oriented, competitive BT cannot afford’ (Bradshaw and Taylor, 1993).

Former editor of *Computing* magazine Richard Sharpe has noted one paradoxical consequence of this prioritization. It is his estimation that most ‘new’ technology is, in fact, characteristically ‘old’ in that it complements existing products that have already proven their marketability. In this way the computer industry, Sharpe argues, offers a ‘public mask of progress and the private face of conservatism’ (Sharpe, n.d., p. 111). For example, it is striking that most informational products for the home are actually enhancements of the television set. Video equipment, cable, computer games and suchlike are all founded on what has been a remarkably successful commercial technology – the television. A range of new technologies and services for the home are converging in the ‘home entertainment centre’, a digitalized console that incorporates e-mail, games, computing and internet facilities, but is built around entertainment. We cannot be surprised that the form (the ‘box in the corner’) and the content (entertainment) of almost all the new ‘home information systems’ are decidedly familiar. Why offer anything different when television has shown itself as the public’s favourite leisure technology?

Those who feel that such an outcome is an inevitability driven by a self-propelling logic of technological innovation need to exercise some imagination here. There is no compelling technical reason either why home ICTs should be built around the television set (just as there was no technical imperative that led to television technology being created to fit into the living room [Williams, 1974, p. 26]) or why that programming should be so emphatically entertainment

oriented. The most telling pressure was that this was where and how the most lucrative sales would be made; accordingly, domestic information technology was pushed and pulled in directions dictated by the market. Predictably, then, this results in familiar products and programming. As Sharpe comments:

Alternative uses of technology are sought out by alternative groups. But they are few and far between. They mostly fail because the technology is not aimed at alternative uses, it is not developed to engender real change: for better or worse, it is developed to preserve.

(Sharpe, n.d., p. 4)

Relatedly, when one comes to examine more closely the actual information that has increased in such quantity in recent years, one can easily enough fail to recognize the impress of market criteria. Since it is popular to presume that more information is in itself advantageous, one rarely asks about the role of the market and some of the negative consequences of this pressure. But it is useful to reflect critically on the nostrum that all information is enlightening, in some way an advance on a less 'informed', thereby more ignorant, previous condition. Scepticism about the value of ever more television programming of an escapist kind readily springs to mind here and one supposes this is something about which many readers might concur. One might also look sceptically at much of the information made available on the internet.

To be sure, this is enormous, and enormously varied. A good deal of information on the internet is of high quality, especially that coming from public organizations such as universities and government departments (I discuss this further in Chapter 9). But who can doubt that a very great deal of the information from the internet is of dubious value at best, is but an extension of selling, whether emanating from a corporation endeavouring to present an appealing image or from one trying to persuade others to buy its products? It is surely possible to envisage a situation in which, to adopt the title of Danny Schechter's (1997) book, the 'more you watch, the less you know', a milieu in which there may be more information, but where people are less informed than ever. Susan Jacoby's (2008) complaint that the internet is becoming a 'highway' for 'junk thought' (p. 308) might be baldly stated, but her argument merits at least reflection and some soul-searching. We raised this issue in Chapter 3 and it continues to matter.

The late George Gerbner's (1998) finding that heavy television viewers are less aware of what is happening in the world outside their doors than are light viewers should encourage us to hesitate when asked to endorse the view that more information is of itself beneficial. Late in November 2003 a poll of British 16- to 24-year-olds found that 42 per cent could not name a single Cabinet Minister, yet half could list five characters from the television soap *EastEnders*. Knowledge of celebrities, of the shows and magazines in which they appear, is prodigious, but it stands in sharp contrast to widespread ignorance of the main-springs of social and political life (Ezard, 2003). The 2003 type of poll can be repeated any time to reveal dismaying public ignorance about social and political affairs, disturbing inability to appreciate reasoned and evidence-based

debate, alongside often extensive knowledge of the lives and foibles of television personalities and sporting 'greats'. Market hype and hucksterism have some responsibilities here.

Rather than commentators expressing awe at the growth of databases nowadays available in real time from any terminal, one might ask hard questions about the criteria which shaped their construction and the bases on which they are made available. Doing so, one readily becomes aware that the designers of most online information services have endeavoured to appeal to corporate clients since these have an identifiable need for real-time business information and, tellingly, they have the ability to pay the premium rates that have fuelled the rapid rise of 'information factories' like Experian and Dow Jones. Experian, founded in 2006, gathers data on credit ratings, marketing and consumer behaviour, selling this to companies, on which basis it generated revenue of \$4.5 billion in 2012. Dow Jones, a much older organization (though in 2007 it was bought by News Corporation for \$5.6 billion), serves corporate and financial markets with dedicated information products and services to aid investors and traders make more money, for which it earns in excess of \$2 billion per annum.

In this context, Herbert Schiller's comment is to the point:

In a market economy, the questions of costs and prices inevitably play the most important . . . roles in what kind of base will be constructed and the category of uses the base is intended to service (and by which it is to be paid for). The selection of material that goes into a database is closely linked to the need for, and the marketability of, the information service.

(Schiller, 1981, p. 35)

It is this that led Professor Schiller to ask exasperatedly:

What kind of information today is being produced at incredible levels of sophistication? Stock market prices, commodity prices, currency information. You have big private data producers, all kinds of brokers . . . who have their video monitors and are plugged into information systems which give them incredible arrays of highly specific information, but this is all related to how you can make more money in the stock market . . . how you can shift funds in and out of the country . . . that's where most of this information is going and who is receiving it.

(Schiller, 1990b, p. 3)

David Dickson (1984) extends this argument in his history of science and technology – key knowledge realms – since the Second World War. Here he identifies two elements, namely the corporate sector and the military, as the critical determinants of innovation. To Herbert Schiller (1984b) these are reducible to one, since it is his conviction that the military's responsibility is to protect and preserve the capitalist system and its market ethos. Thus he writes:

The military's preoccupation with communication and computers and satellites . . . is not some generalized interest in advanced technology. The mission of the USA's Armed Forces is to serve and protect a world system of economic organisation, directed by and of benefit to powerful private aggregations of capital.

(Schiller, 1984b, p. 382)

The military might make enormous demands on information, but since this is to bolster the capitalist empire worldwide, the fundamental shaper of the informational domain is the market imperative at the heart of capitalist enterprise to which the military dedicates itself. It is in this light that we can better appreciate Schiller's (1981) summary judgement of the Information Society. Far from being a beneficent development, it is expressive of capital's commitment to the commercial ethic. Hence:

What is called the 'Information Society' is, in fact, the production, processing, and transmission of a very large amount of data about all sorts of matters – individual and national, social and commercial, economic and military. Most of the data are produced to meet very specific needs of super-corporations, national government bureaucracies, and the military establishments of the advanced industrial state.

(Schiller, 1981, p. 25)

Dickson extends this theme when he identifies three main phases of the United States' science policy. The first, in the immediate post-war years, was dominated by the priority of gearing scientific endeavour to the needs of military and nuclear power. During the 1960s and 1970s there was a discernible switch, with social criteria playing a more central role and health and environmental concerns making a significant input to science policy. The third – and continuing – phase began in the late 1970s and reveals an emphasis on meeting economic and military requirements. By the early 1980s the guiding principle was decidedly 'the contribution of science to the competitive strength of American industry and to military technology' (Dickson, 1984, p. 17). This has resulted in science increasingly being regarded as 'an economic commodity' (p. 33) and the language of the boardroom and corporate planning intruding into the heart of scientific activity. Today, attests Dickson, innovation is guided by the principle that one will produce only that which will contribute to profit. Hence routine reference is made to 'knowledge capital', suggesting in no uncertain terms that scientists and technologists are regarded as factors of investment from which capital expects an appropriate return. From this perspective even scientists employed in academe come to be regarded as 'entrepreneurs' and are encouraged to co-operate closely with business people to create commercially viable products.

Dickson insists that this emphasis on the goal of success in the market directs scientific and technological knowledge away from alternative guiding goals such as public health, service to the local community, improving the quality of work

experiences or supporting the environment. The consequence is that universities, institutions at one time committed, at least in part, to wider community needs as well as the pursuit of knowledge for its own sake, have radically changed direction, dedicating themselves to research aimed at improving the commercial competitiveness of industry, thereby assuming that the marketplace is the appropriate arbiter of technological change (Slaughter and Leslie, 1997).

Political programmes that have sought the *privatization* of once publicly owned utilities and the *deregulation* of one-time state-directed organizations have had a marked effect on the information domain. They have been openly trumpeted as the application of market practices by their advocates, simultaneously as the most appropriate way to encourage efficiency and effectiveness (private ownership promising a personal stake in resources and improved responsiveness to customers) and as a means of introducing competition (and hence improved services) into previously monopolistic realms. Across Europe, the United States and the Far East, with variations resulting from local circumstances and histories, strategies for making the informational realm responsive to and dependent on market criteria were put in place between the early 1980s and mid-1990s (Nguyen, 1985), with this twin element at their foundation. These have continued unabated.

Vincent Mosco's (1989) belief that it 'represents an abdication of policy in favour of the marketplace' (p. 201) is correct in so far as it emphasizes the prioritization of the market, though this signals no rejection of policy. On the contrary, privatization and deregulation have been conscious and actively pursued policies, put in place to ensure that ICTs and information are developed in particular ways. Major effects have been evident, especially in the vital information industry, telecommunications. In the UK, for instance, BT has operated on distinctively commercial lines, prioritizing customers with the deepest purses (i.e. corporate and large government sectors) in its development of new and existing services and in taking measures aimed at ensuring its success as a capitalist enterprise.

In the days preceding privatization, telecommunications in Britain operated with what may be called a loose 'public service' ethos. There was never a telecommunications business in the UK that was subsequently taken over by the state (nationalized). The telephone network was part of the state-owned Post Office *from the outset*, a monopoly service charged to deliver mail as well as telephony. The remit of public service guided the provision of services, aiming for universal geographical availability, non-discriminatory access and a pricing policy that aspired towards 'reasonable costs or affordability' (OECD, 1991, p. 26) that was achieved by a complex system of cross-subsidy of discrete points on the network from lucrative urban and international links. The telecommunications monopoly also played an important role in supporting the British electronics industry by purchasing over 80 per cent of its equipment from these domestic sources, thereby acting to all intents and purposes as an arm of government economic strategy.

However, the market-oriented policies introduced by the Thatcher administration (1979–91) encouraged deregulation and took away the 'natural monopoly' of BT to allow competitors to enter the field. BT was separated from the Post Office in 1981 and with this shed the encumbrances of mail delivery so it would be better able to meet competitive challenges. In response, Mercury came into

existence from private capital – with a mission *not* to supply an alternative telephone service, but rather to win *business* traffic, easily telecommunications' major market. Since Mercury had but little market share (less than 10 per cent), its chief significance was not primarily as a competitor to BT, but more as an indication of new priorities prevailing in telecommunications (by the mid-1990s, Mercury was merged with several other operators by its parent Cable and Wireless, and later took the latter's name).

BT's subsequent privatization in 1984 (at the time the biggest sale of state assets in the world) announced a renewed commercial emphasis in the organization, one it marked with a decisive orientation towards the business market and business practices. This was expressed in various ways.

First, responding to Mercury's attempt to cream off major corporate customers, BT reduced its prices in those areas. The company was quick to complain that it was 'making losses on local access', which it had once supported by charging over the odds to business users. This had not, of course, been a problem before, but by 1990 Mercury, free from the burden of offering a universal service, was attacking the corporate market, gaining almost 30 per cent of the national call revenue from customers with 100 or more lines. Now BT complained that 'high usage customers (i.e. corporations) pay too much for their telephone services', while BT itself 'fails to make an adequate return from about 80% of customers (i.e. domestic users)' (British Telecom, 1990). The consequence of such a diagnosis was predictable: though following privatization some regulatory influence remained, setting a formula to restrict BT's price rises, this was only an average ceiling. In practice domestic users' costs rose ahead of those charged to businesses.

Second, BT, now a private corporation aiming to maximize profit, made moves to enter the global telecommunications market. It purchased manufacturing facilities in North America and became less interested in buying equipment from British suppliers. During the early 1990s BT took a 20 per cent stake in MCI (Microwave Communications Inc.), the second largest US long-distance telecommunications company, and later entered into an agreement with North American giant AT&T to pool cross-border assets. The motive behind these actions was to advance a market-oriented strategy which recognized, first, that the fastest growth area of the market was increasingly international and, second, that the really critical international market was that made up of corporate traffic. Concert Communications Services, the joint venture between BT and AT&T which began in 2000, targeted 'multinational business customers'. BT was clear-minded about this, recognizing that '[t]he largest customers . . . are typically multinational companies with branches throughout the developed world' (British Telecom, 1990, p. 6). Accordingly, BT had a 'highly-focussed strategy of supplying networks and network-based services to multinational companies' (British Telecom, 1993, p. 25). The stake in MCI, the alliance with AT&T and a cluster of partnerships with European corporations were intended to enable BT to become a global leader in the provision of corporate network services. That these ambitious ventures failed (Concert was closed in 2001 and merger with MCI stalled) takes nothing from the major issue: there was no comparable push to improve services to everyday domestic users. The aim of the investment was to provide a global network for the

25,000-odd transnational corporations that offered them the enhanced voice and data services essential for their effective operation. Since 2002 BT Global Services has been the division dedicated to advancing its parent's ambition to win the largest possible share of network business from transnational corporations and government. BT has moved away from unreliable alliances, attempting to go it alone in this area as much as it possibly can. BT Global Services accounted for 40 per cent of revenue by 2012, a sign of changing concerns for what was once largely a domestic supplier.

BT feels no embarrassment by its prioritization of the business market since it reasons this 'will be the source of the improvements in service and in techniques which will subsequently feed down to the residential market' (British Telecom, 1990, p. 6). This is, of course, the 'trickle-down' theory of economics applied to the 'information revolution': prioritize the better off and later on the poorer will get an improved service.

Third, BT has reduced its staffing while increasing its revenues: from a peak workforce of about 250,000 in 1989, it dropped to 150,000 by the end of 1993, and to 89,000 by 2012.

None of this should be read as a complaint against BT. Rather, it should be seen as exemplification of the primary role in developments in the information domain of market principles and priorities. Now largely freed from restrictions stemming from its days as a publicly owned monopoly, BT acts much like any other private venture with global interests. Its aim is to succeed in the market and its services and practices are tailored to that end. If that means price rises over the odds for ordinary householders, labour lay-offs, and targeting of the wealthiest clients for new information services, then so be it. That is the logic of the market and the reasonable response of an entrepreneurial management. Now BT executives unabashedly extol the 'free market', urging that regulation be removed wherever it hinders the company's efforts. Thus chairman Sir Michael Rake tells investors that 'internationally we continue to press for policy and regulatory change . . . – in particular, open and fair wholesale access to communications networks', adding, in tribute to changes already implemented in Britain, 'we only seek across the world similar conditions to those in the UK' (British Telecom, 2012).

Finally, however, we draw particular attention to the *constraints* this market milieu imposes on participants. It might be believed that the adoption of market practices is a matter of choice for companies such as BT, but this is far from the case. Indeed, there are massive pressures disposing them towards certain policies. An imperative is that the provision and servicing of information networks, while crucial for corporations in their everyday operations, is an intensively competitive market which impels players to act in given ways. As BT noted, while a 'world-wide telecommunications industrial structure can be expected' to emerge, it will be one established and operated by 'perhaps [only] four or five large providers competing in the global market place at the cutting edge of the industry' (British Telecom, 1990, p. 6). BT has ambitions to be among that elite, but there it will confront much bigger entities than even itself (despite its £20 billion annual revenues), and ones equally determined to capture a large part of a huge global network market. All this for a reason equally obvious to BT (and major American,

Japanese and European telecommunications organizations): the readily perceived market opportunities in international business customers that have the biggest budgets and largest demand for sophisticated telecommunications services. The appeal may be obvious of the potential rewards from success in this market. Equally obvious, however, is the realization that to fail in, or even to fail to enter, the global telecommunications market with the right products and services is unthinkable for the major suppliers. Thus they too are pressured into a race over which they have little control. A predictable consequence has been a bewildering series of often failed alliances, mergers and restructuring, with the aim of gaining strategic advantage in a market restricted to giant players.

The primacy of market criteria in the information domain has had other consequences. An important effect has been that the promotion of the marketplace has led to a decrease in support for information institutions that for long have been dependent on public finance. I discuss this more in Chapter 9, so here simply telegraph the theme. Institutions such as museums and art galleries, libraries, government statistical services, the BBC and the education system itself have all encountered, in face of the 'information explosion', cuts and redirections in funding as a result of preference for market-oriented policies.

It has been government policy in Britain since the mid-1970s that the most effective way to encourage the 'information revolution' is to make it into a *business* (Information Technology Advisory Panel (ITAP), 1983). To this end, public subsidies have been reduced and commercial values prioritized across a range of information institutions. For Herbert Schiller, witnessing a cognate development in the United States, this represented an 'effort to extend the commercialisation of information into every existing space of the social sphere' (Schiller, 1987, p. 25). Familiar stories of restrictions on library opening hours, shortages of funds to buy books, closure of non-viable courses in universities (e.g. Philosophy is at risk of disappearing outside the most prestigious British institutions) and a decisive shift towards full payment of tuition fees by student 'customers' are results of this prioritization of the market in once protected realms.

According to Schiller (1989b), this represents 'the progressive impoverishment of social and public space', with serious consequences for the generation and availability of information. In his view what we are witnessing is 'a silent struggle being waged between those who wish to appropriate the country's information resources for private gain and those who favour the fullest availability' – and in this struggle the 'latter have been in steady retreat' (Schiller, 1985c, p. 708).

It is difficult to dissent from the view that, as public subsidy is replaced by private interests (or not replaced at all) that seek to develop information for the market, or, less dramatically, where public funds are so reduced that the institutions themselves are driven towards private sources of funds to remain viable, there are major effects on what information is created and on what terms it is made available. It tends to lead to price increases for access and the favouring of exhibitions and programming which can either enjoy popular appeal (sufficient to induce a wide public to pay admission prices) or attract sponsors (generally from the corporate sector). It beggars belief to be told that this does not influence either access to information or what gets produced in the first place. Where people

have to pay for admission to an art gallery the upshot is that, minimally, certain sectors of the public are discouraged from attendance and, in turn, the institutions themselves must respond by making their exhibits appealing to paying customers. Of course, one may argue that this is no bad thing, leading as it does to visitors better appreciating that which they pay for and to exhibits being responsive to the public. This does not, however, negate the fact that the information access and supply are shaped in particular directions. Further, while market practices may also encourage imagination and innovation, the emphasis on attractive cafés, museum shops and exotic displays scarcely improves or deepens the quality of information made available. And where sponsors enter the situation – as they do increasingly in universities, libraries, theatres and television – there clearly are consequences simply because, however enlightened the paymasters, sponsors are generally not involved for charitable purposes, but to further their own agendas and interests. As such, it is unlikely to mean support for the imaginative and challenging in, for example, art (Agatha Christie yes, Dario Fo no) and education (Business Management yes, Race Relations no).

Graham Murdock (1990), endorsing Schiller's interpretation, contends that the consequences of this market-orientation are especially serious in view of the concentration of most mass communications in large corporate hands. In his view the 'public cultural institutions' such as the BBC and libraries had a 'countervailing power' that balanced the likes of the tabloid press and ratings-dominated commercial television. Indeed, 'at their best' these institutions 'embod[y] a genuine commitment to diversity and open argument, and at their minimum they filled a number of important gaps in commercially organised provision' (Murdock, 1990, pp. 6–7). I consider these issues at length in Chapter 9. Here, however, it is enough to say that changes in the organization and funding of 'cultural institutions' in favour of the market do have manifest consequences for the information that is developed and how it is made available.

Commodification

A recurrent concern of Herbert Schiller and thinkers like him is that information is increasingly being commodified. Because it is developed and made available in a market society, so must it be treated like most other things within a capitalist order. As such, it is regarded as vendible, subject to the price mechanism, hence a commodity to be bought and sold by one party or another. It is reasonable to ask why this should matter since no one, certainly not Herbert Schiller, suggests that information, still less computer communications technologies, come free of cost.

Much of the objection to commodification comes down to what Oscar Wilde disparagingly termed knowing 'the price of everything and the value of nothing'. There is a lengthy tradition of thought, by no means all radical, that voices this concern about the limits of the price mechanism. For instance, in the early 1990s a feisty Conservative Cabinet Minister, David Mellor, warned against too strong an imposition of commercial practices on the arts when he advised his audience that they would do well to remember that in 'the long run a society is judged not

so much by its economic achievements, but by its cultural ones'. This is a reminder that we recollect the nineteenth century less for its cotton and coal barons, though they were supreme in their day, than for its artists and architects. Mellor's was a speech delivered during a period of enthusiastic and determined advancement of capitalist principles, when entrepreneurs and private enterprise were much praised, yet still a Cabinet member could warn of its limitations.

Nonetheless, in recent decades we have witnessed an accelerated commodification of the informational realm. More of this will be considered in Chapter 9 – and it is especially evident in the realm of television, so we discuss that there – but at this point we may also instance the heightened price valuation of 'brands' (de Chernatony and McDonald, 2003). Products still matter, of course, but the value of a brand, from the Nike swooshes to the Virgin label, has developed an increased significance in recent years. It has even been argued that we inhabit a 'brand society', many navigating their way through life by using and knowing the language of the brand (Kornberger, 2010). Even British universities now assiduously market their brand, eager to recruit students from abroad since they can be charged more than domestic ones and the fees are lucrative. The process has extended even to the commodification of a name, famously so in the case of footballer David Beckham, whose transfer to Real Madrid from Manchester United in 2003 owed much to the selling power of his name in the Far East, which promised increased merchandizing opportunities. It is striking that nowadays such intangibles as a 'name' carry economic weight beyond the actual capabilities of the player.

Intellectual property

Accompanying this has been a heightened concern for *intellectual property* and its protection by way of copyright and patenting, processes that Lawrence Lessig (2000) regards as a form of *enclosure* (Boyle, 2002), meaning drawing into market relationships arrangements that may once have been excluded. These are dedicated to ensuring that the correct proprietor is identified and the price of the information maximized. Consider, for example, the complaint of John Sutherland regarding the digitalization of reviews and articles he has written in the *Times Literary Supplement* and the *Times Higher Education Supplement* over many years. Previously, the pieces were hard-copy published, Sutherland received a fee for the job and that was the end of the matter. If readers wanted to consult his writings, they either bought or borrowed the original periodical or, if after an old edition, consulted it in an academic library where bound copies (or possibly microfilms) were stored. Digitalization, however, makes the backlist readily accessible from anywhere to those with a subscription and communications facilities. Consultation of Sutherland's *oeuvre* is now much simpler with word search systems. By the same token it is a source of income to the publishers, who are determined to exploit that income stream. But Sutherland objects that all this has been done without his permission and without return to him, though he is the author. The pressure comes from the publishers, who are endeavouring to use digitalization to maximize the return on their investment.

A connected, but much more important, issue concerns the realm of scientific knowledge, publication of scientific research and the pressures towards commodification. On one side are those who argue that scientific knowledge should be freely available. This taps a 'Communist' spirit among many scientists that encourages them to make available their findings for the general good. So long as their peers acknowledge them, many scientists appear committed to their research findings being open to anyone who wishes to consult them. Such a position waives proprietary claims over the science and is sympathetic to 'open source' publication that ensures results of research are posted on the web free of charge. However, opposing this is the view that regards scientific knowledge as proprietary, as subject to ownership, so that those who wish to consult such knowledge should pay a fee whenever they do so. One might imagine Einstein claiming proprietary rights over his Laws of Thermodynamics, due a fee every time his equations were drawn upon. The situation is further complicated by the presence of publishers of scientific research. They have long had a presence in this field, publishing hard-copy journals as commercial activities. However, the spread of the internet potentially puts them out of business, since scientists can now, in principle at least, bypass the publisher by putting findings directly on to the web. Publishers, who are rapidly digitalizing their journals and records of previous publications (which considerably eases access for users, so long as they have subscription rights), insist that the status quo on publication should remain. These journals are often extremely expensive and are lucrative sources of revenue to publishers. From another side, some universities – who employ many scientists – are also developing policies that encourage researchers to self-archive their work, putting their publications on to university web sites, where they may be consulted free of charge. The argument here is that these are staff of the university, they undertake research as part of their duties, so their research might well be put out on the university web site. Obviously publishers are resisting this since it threatens their business.

The situation here is complex and fluid, but no one believes that the traditional ways of behaving can continue indefinitely. Pressures to commodify scientific knowledge, to make it available on market terms, are being felt at precisely the same time as some scientists urge that open source publishing develops, something that threatens established commercial interests.

It needs to be appreciated how vital and controversial such matters are for the Information Society. It should surprise no one to learn that copyright, originally introduced to balance rights of authors and inventors with the wider public good, has had its period of enforcement raised from fourteen years in the late eighteenth century to, in 1998, seventy years after the death of an author and ninety-five years for corporations after publication. It may seem trivial to learn that copyright can now be extended to scents and smells, but reflection on the struggles surrounding the discovery of the genetic code highlights the enormous stakes involved. Early this century new sciences (geneomics and proteomics) were founded because the DNA structure has been finally identified by some two billion letters. This will radically change medical science, since knowledge of genetic codes presages an end to the development of drugs through trial and error.

This research has been made freely available by its developers at the Wellcome Trust Sanger Institute. However, there was a race to define the code that involved a commercial organization that aimed to charge for every consultation. When one considers that professionals from over 135 countries look at data from the Sanger Institute at least one million times per week (*Guardian*, 3 November 2003, p. 1), the implications of commodifying this knowledge can be better appreciated. Almost as profound are struggles over the programs that allow the internet to run. Microsoft is the major, proprietary, player, but open source code – developed as a service that is freely available, by such as Linux and Apache – presents a challenge to Bill Gates’s model (Weber, 2004).

The direction of commodification of information, facilitated by ICTs, is ‘towards a society in which much of the cultural activity that we currently take for granted . . . reading an encyclopaedia in a public library, selling a geometry textbook to a friend, copying a song for a sibling – will be routed through a system of micro payments in return for which the rights to ever smaller pieces of our culture are doled out’ (Boynton, 2004). Schiller deplored such a tendency, holding firm to the notion that information should be a public good, not something to be bought or sold on the market (Rikowski, 2005).

Class inequalities

The pivotal role of the market in the informational realm means that information and information technologies are made available to those best able to pay for them. This does not mean, of course, that they are totally exclusive. Clearly, virtually all members of society have some access to information products and services, television, radio and newspapers being obvious examples. Indeed, since the market is open to all consumers, most of what is offered is, in principle, available to anyone – at least to anyone with the wherewithal to pay for it. However, the fact that the market is the allocative mechanism means that it is responsive to a society differentiated by income and wealth. In other words, class inequalities – broadly, the hierarchical divisions of society – exercise a central pull in the ‘information age’.

One popular way of presenting this has been to suggest that it evidences a ‘digital divide’. There has been considerable concern expressed about this in recent years, especially with regard to adoption of the internet. There is abundant evidence that the better off are quickest to get ‘wired’. While Schiller would have acknowledged the empirical reality of these divisions, it is doubtful that he would have endorsed the technology-led thinking that permeates most digital divide concern. The presumption in general is that digital divides are regrettable, even reprehensible, because they exclude the unfortunate from full participation in society (cf. Foster and McChesney, 2011). A policy of maximizing access to the internet duly follows, perhaps by attempting to make terminals available in schools or libraries so that the disadvantaged might get to them.

The premise of such policies often is that it is technology that blocks people from opportunities, a viewpoint starkly evident in Republican Newt Gingrich’s

proposal in 1995 that the poor would be better of being given a laptop computer than welfare benefits. Thinkers such as Herbert Schiller would have protested that such a recommendation confuses cause and effect, and its practical consequences for the poor are risible.

Vincent Mosco's (1989) description of a 'pay-per society' spotlights the *ability to pay* factor as a determinant force in the generation of and access to information. Bluntly, the higher one is in the class system, the richer and more versatile will be the information to which one has access. As one descends the social scale, so one gets information of an increasingly inferior kind.

Herbert Schiller (1983a) endorses this position, identifying as the 'chief executors' of the 'information revolution' – by virtue of their capabilities to afford the most expensive and leading-edge products of the ICT/information industries – three institutions: the military/defence agencies, large private corporations and national governments. In this he finds support from business consultants who estimated that over three-quarters of the European ICT market is accounted for by corporate and state outlets, with the 'general public' (i.e. everyone else apart from these two privileged groups) making up the remainder. In short, the virtuoso technologies go to the likes of Ford and the air force; the majority of the population get the leftovers – for the most part television-type playthings.

The centrality of ability to pay criteria, and the close linkage these have with class inequalities, leads Herbert Schiller (1983b) to emphasize what one might call information stratification. He distinguishes, for instance, the 'information rich' and the 'information poor', both within and between nations. Thus:

Access to information becomes a factor of wealth and income. The general public and the State itself are progressively excluded . . . The division inside the society between information 'haves' and 'have nots' deepens just as it does between nations, making the less-developed ones – which in the information age means the overwhelming majority – still more dependent on the few information generators, processors and transmitters.

(Schiller, 1983b, p. 88)

This is easily enough illustrated. In countries such as Britain and the United States, for example, it is striking that, for the 'general public', the 'information revolution' means more television. As mentioned earlier, not only have the major developments been, in all essentials, enhancements of the television monitor (cable, home computer, video, Game Boy), they have also been programmed with a very familiar product – infotainment. And the reasons for this are not hard to find. They lie in the fabulous success of television over the years (household saturation of equipment, a tremendous vehicle for advertising, entertainment shows relatively cheap to produce and very appealing). In such circumstances it is no surprise to find information providers backing the proven success. Moreover, it must be remembered that, when it comes to this arena, mass sales are essential since each household is, in relative terms, a poor source of revenue for the information industry. Given this, those addressing the domestic realm must aim to supply a mass market, since it is only when individual homes are aggregated as

the 'general public' that they have market attraction. Once they are aggregated, however, the 'general public' must be offered information products which are relatively undifferentiated – hence the familiar television monitor and the plethora of game and chat shows, soaps, movies and sport. Further, the 'general public' has proven itself reluctant to pay direct for television programming – that has been subsidized by the advertiser and/or sponsor. Again, though, with rare exceptions, advertisers who use television are interested in reaching mass audiences, which in turn impels the programming towards 'more of the same' to ensure multi-million audiences. As such, any idea that the information needs of households may be variegated and sophisticated is lost, the major conduit for information provision being dedicated to entertainment and lowest common denominator programmes.

Much the same story pertains to cable and satellite services. While a lot has been written about the prospects of television responding effectively to the differential needs of the public, with multiple channels offering drama for those interested in theatre, ballet for those drawn to dance, news and current affairs for those keen on politics, and education for those wanting to improve themselves, the real history has shown, in the words of Bruce Springsteen, '57 channels and nothin' on'. Overwhelmingly, cable television channels offer entertainment programming: sport, soft pornography, action adventures, rock music videos and movies predominate. The fact is that the sophisticated and specialist channels dreamed about by the futurists in the early 1980s have come to naught, failing because they were too expensive for other than a tiny proportion of the population, and even these in aggregate were inadequate to fund the specialist stations. The channels which have survived have tapped into the one rich vein, mass entertainment, where large audiences can be attracted for modest subscriptions or where advertising revenue can be commanded on promise of delivery of big numbers of viewers.

While instances such as these readily demonstrate that the 'general public' constitutes the 'information poor' that is worth supplying only when lumped together as mass audiences, it has to be added that application of commercial tenets to cable and satellite television can have marked effects on public service broadcasting. I discuss this further in Chapter 9, but observe here that the commitment of cable suppliers to seeking out mass audiences clearly has important implications for television providers such as the BBC. Not least is that programming supplied on the public service channels for 'free', where it achieves audiences of several millions, quickly comes to the attention of cable suppliers, who endeavour to provide it themselves – on an ability to pay basis. The UK has seen this especially with regard to sport. Since 1990 all Premier League football, almost all international games when England plays and a sizeable proportion of European Champions League matches (when the likes of Real Madrid, Milan and Chelsea play one another) have been purchased by Sky, as have other major sporting events such as Ryder Cup golf and world title boxing matches. The upshot is that those who may formerly have seen such sport for free are now excluded unless they are prepared to pay a monthly subscription (and occasionally an additional sum for a special programme).

Of course, it is not being argued here that this transfer makes one 'information poor' of itself. It would scarcely be feasible to contend that subscription to the existing cable television channels does much to deepen or extend anyone's information resources. Nonetheless, the transfer does further impoverish the environment of the already information disadvantaged. It does this by reducing the variety of programming currently made available by public service television. And then, paradoxically, it fails to enhance choice on cable networks both because a prerequisite of cable access is ability to pay (and hence potential viewers are economically excluded) and because the cable and satellite channels are so uniform in their programming (sports, movies or other entertainments), thereby reducing the diversity which is characteristic of British public service broadcasting.

Comparable processes which deepen information divisions are visible between nations, where differences of income lead to sharp information inequalities. The advanced nations, where the world's wealth is concentrated, are the major beneficiaries of the 'information revolution'. At the same time, the poorer nations, wherein are located the majority of the world's population, are limited to the leftovers of the first world (for example reruns of Hollywood serials), are dependent on what the affluent nations are willing to make available (for example what is produced from the news agencies) and may be further disadvantaged by the rich's monopoly of leading-edge information technologies such as satellites, which may monitor poorer nations from far above in the skies (for example for crop developments, mineralogical deposits, shoals of fish, even plain spying) and/or broadcast Western shows which undermine indigenous cultures and patterns of belief.

What is being suggested here is that, with the 'information revolution' being born into a class society, it is marked by existing inequalities and may indeed exacerbate them. Thus what has been called the 'information gap' may be widened, with those economically and educationally privileged able to extend their advantages by access to sophisticated information resources such as online databases and advanced computer communications facilities, while those towards the bottom of the class system are increasingly swamped by what Schiller has termed 'garbage information', which diverts, amuses and gossips, but offers little information of value.

Here Schiller is observing that more information of itself does not necessarily enrich people's lives. On the contrary, the overriding determinant of information access and supply being ability to pay has meant that, for the majority, what is offered is cheap to produce, shallow, superficially appealing, mass information. This is because it is only when domestic audiences are aggregated that they represent a commercially viable prospect. To be sure, programmes put out at 2 a.m. are scarcely seeking mass audiences. Nevertheless, the commercial imperative operates here since such programming is invariably cheaply produced – cheaper by far than peak viewing shows – and/or reruns of previous transmissions.

Surveying the surfeit of information offered in recent decades to the 'general public', from pulp fiction, available now even in food stores, free 'newspapers' delivered to every home, the explosive growth of 'junk mail', 24-hour-a-day television services, to the extension to every high street of video rental shops, the eminent journalist Carl Bernstein (1992) concluded that 'ordinary Americans are being

stuffed with garbage'. Herbert Schiller (1987) concurs, arguing that 'we see and hear more and more about what is of less and less importance. The morning television "news", which provides an hour and a half of vacuous or irrelevant chatter, epitomises the current situation' (p. 30). In this sense the 'information revolution' has given the 'information poor' titillation about the collapse of royal marriages, mawkish accounts of the final days of football genius and alcoholic George Best in 2005, the addictions of the wonderfully talented but mentally vulnerable soccer player Paul Gascoigne, graphic discussions of the sexual misdemeanours of athletes, round-the-clock transmission of 'reality TV' participants, but precious little information that may let them in on the state of their society, of the construction of other cultures, of the character and reasons for their own situations.

Corporate capitalism

In Herbert Schiller's view the major beneficiary of the 'information revolution', because it is the most appealing market, is the corporate sector of advanced capitalism. Throughout the twentieth century the market economy changed from one characterized by innumerable small-sized enterprises to one in which the majority of economic activity is dominated by a select few corporations which are very large, vertically and horizontally integrated, and have geographical reach.

This corporate capitalism has several crucial consequences for the information environment, each of which stems from its enormous wealth and central position in the modern economy. One is that information and allied technologies are developed and put in place with the corporate market uppermost in mind. The major computer installations, the front end of telecommunications services and the leading forms of electronic information processing are all to be found among corporations which have the ability to afford such things and, connectedly, have identifiable needs for ultra-sophisticated information facilities. For instance, as they have expanded in size, scale and space (corporations are generally bigger, involved in more things and across wider frontiers than ever before), so it is clear that modern corporations have a built-in need for developed information networks and advanced systems of management control. Up-to-the-minute computerized technologies are a prerequisite of co-ordinating, of integrating and administering, organizations which typically have disparate locations.

It is truisitic to say so, but still it needs to be said in face of so much celebration of the apparently extra-human origins of the new technologies: those who can pay for virtuoso ICTs seek out, and have provided for them, technologies which further their interests. Given corporate capital's overriding interest in profitability, we may usefully consider the history of technological innovation as one decisively shaped by those who have footed the bill. David Noble (1977) has elaborated on this, documenting how the development of engineering in the United States evidences close affinity with the expanding corporate sector. Moving more directly to consideration of new technologies, Noble (1984) has also been able to demonstrate how the computerization of machine tools was guided by corporate managers' insistence that the shop floor be *excluded* from programming the new

systems. Computerization was to be removed from the purview of employees so that it could be more effectively used as a tool to strengthen management. As such it would further empower those who already had most control over the operating of factory sites.

The result of ICT serving 'nicely the world business system's requirements' (Schiller, 1981, p. 16) is that it bolsters the powers of corporate capitalism within and without any particular society. And it does this in a wide variety of ways. For example, it enables companies to operate over distances using different workforces, responding to variable local circumstances (political, regional, economic, etc.), with an efficacy unthinkable without real-time and sophisticated communications. Twenty years ago 'offshore' activities evoked corporations that transferred manufacture abroad to reduce production costs; nowadays offshore activities as readily conjure a 'back office' for a bank or retail outfit as far from Britain as Bangalore or the Bahamas. Constant is the opportunity to adopt such practices that comes to corporations through network technologies. Relatedly, this facilitates corporate strategies of 'decentralisation' of activities (i.e. slimming down corporate headquarters, and instructing subsidiary elements of the business to operate as 'independent' profit centres) while simultaneously bolstering centralized command because local sites can be easily observed, their performances tracked by a range of electronic techniques (e.g. precise sales records, records of productivity reaching down to individual employees).

Further, ICTs allow corporations to conduct their businesses globally with minimal concern for restrictions imposed by nation states. Corporations can operate telecommunications networks which offer them instantaneous economic transactions and real-time computer linkages along private lines which are removed from the scrutiny even of sovereign states. How, for instance, can a government, say, in Africa or India know about the functioning of transnationals with bases in their country when information about the likes of General Motors and IBM is passed between Detroit and Lagos or New York and Bombay in digital form through satellites owned by Western companies? Questions have long been asked about corporate practices such as 'transfer pricing' (i.e. internal accounting to ensure the best result for the corporation, whether or not, say, wage bills or investment commitments are a reflection of real costs in a given region); in an era of ICT and associated electronic information flow it is almost impossible to conceive of getting accurate answers (Murray, 1981).

A stark instance of the relative powerlessness of nations came to light late in 2012 when it was learned that global corporations such as Starbucks, Amazon and Google paid little tax. Corporation tax is levied on profits of companies, at around 25 per cent, though the UK prides itself in its relatively low requirements in this regard, in an effort to make itself attractive to businesses locating in this country. It appears, however, that even this is excessive for some transnationals. Hence Starbucks has paid only £8.6 million corporation tax over fourteen years despite sales of over £3 billion. Amazon, though earning close on £8 billion in Britain from 2007 to 2012, provided no corporation tax whatsoever in that period and Google paid only £6 million in 2011 on a UK turnover of £395 million. Such low payment might suggest that these companies were singularly unsuccessful in

making profit, but this is of course naïve. They were instead avoiding taxation by various methods such as being headquartered outside the UK jurisdiction and internal transfer pricing. Nothing these companies did was illegal: they were simply using their network of global locations to minimize their tax liabilities, to which end they employ highly skilled (and highly paid) accountants. Their global reach and networks enable them to report to any particular nation's tax authorities pretty much what they will. This much was conceded by Sir Martin Sorrell, chief executive of advertiser WPP, who opined that paying corporation tax for big companies was 'a question of judgement that might best be seen as a charitable donation' (*Financial Times*, 4 January 2013). Such questions cannot be asked by other businesses, often competitors of the above, which are restricted to these shores.

Bubbling away among these observations on the power emanating from corporate access to information networks is another important ingredient – the spice that makes the 'information explosion' available only on *proprietary* grounds. I have already said a good deal about the central role of corporations in today's economy and how this brings with it their priorities and excludes other ways of thinking. This has profound effects on information. We have encountered some of this in considering the consequences of ability to pay criteria and of operating on the basis of market principles. Here I wish to highlight that it also establishes the proprietary principle of private ownership as the pre-eminent means of handling information. One consequence, as we have seen, is that the corporate sector, with the most economic clout, is provided with the major information services. Another is that much information, once purchased, is then removed – or more likely never permitted to be seen – from public view precisely because it is privately owned. Herbert Schiller thinks this is evident in contemporary America, where 'a great amount of information is withheld from the public because it is regarded and treated as proprietary by its corporate holders' (Schiller, 1991a, p. 44). Obvious examples of this principle – owners can do what they will with what they own – are information garnered by market research companies and research and development programmes undertaken by the corporate sector. Intellectual property, patenting and copyright are burgeoning areas of law in the 'information age': they are testament to the weight of proprietorial principles in this day and age.

Finally, it ought to be emphasized that corporate capital is not merely an external environment into which ICT/information is being introduced. The 'information revolution' is not just being targeted at the corporate sector; it is also being managed and developed by corporate capital itself. In fact the information industry is among the most oligopolistic, gigantic and global of corporate businesses. A roll call of leading information companies is one which announces some of today's largest world corporations, the likes of IBM, Google, Microsoft, Philips, Hitachi, Siemens and General Electric. It is a business in ferment, mergers and takeovers being the order of the day, though these characteristically involve large-scale corporations levering to get better access to fast-changing markets which increasingly spill over into one another, with computing blending with communications, office equipment with personal computers, publishing with education. The industry is an arena operated by corporate capital, which increasingly is responsible for organizing and delivering connectivity and content together. As the information

business follows a path of convergence and integration (of technology and service, hardware and software), there are frantic efforts made to ally wherever possible and to take over wherever feasible. This corporate domination inevitably finds expression in very familiar commercial priorities: it privileges profitability, commercial criteria and supply on the basis of ability to pay.

Consumer capitalism

The foregoing has concerned itself with how Schiller and like-minded critics argue that the 'Information Society' is shaped by advanced capitalism, its market structures, its structures of inequality and its corporate organizations. However, critics can go further than this in two ways. The first, developed by Oscar Gandy (1993), combines the theme of surveillance with an emphasis on the class and capitalist dimensions of the process. Many scholars, notably David Lyon (2007), focus on surveillance in consideration of information today. I return to the subject elsewhere and especially in Chapter 11. However, Critical Theorists offer a particular twist in their accounts, emphasizing surveillance's functions in service to capitalism (Fuchs *et al.*, 2011). Thus they contend that the informatization of relationships is expressed by the increased monitoring of citizens in the interests of a capitalist class. In these terms, for example, the state is a *capitalist* state, hence the spread of surveillance at its behest is a means of bolstering a subordinate class, by, for instance, building up files on trade unionists, political dissidents and radical thinkers, en route to more effectively restricting challenges to the market system. Similarly, the spread of surveillance for more specifically economic purposes is dedicated to strengthening the hold of capitalist relations (Mosco, 1989, pp. 119–24).

The second, connected, contention is that the 'information revolution' furthers capitalism by extending deeper into the everyday lives of people, hence encouraging the creation and consolidation of *consumer capitalism*. This latter can be a vague term, but here it is taken to mean an individualistic (as opposed to collective) way of life, one in which people 'buy a life' (Lynd and Hanson, 1933) by paying personally for what they get. It entails a lifestyle which is home-centred to the detriment of civic relations, where people are predominantly passive (*consumers* of what capitalism has provided), where hedonism and self-engrossment predominate and find encouragement. Consumer capitalism is thus an intensely private way of life, with public virtues such as neighbourliness, responsibility and social concern displaced by a concern for one's individual needs, which it is felt are most likely to be met by purchases in the store and shopping mall (and here, in the fantasy that in purchases we can find fulfilment of the self, is evidence of the collapse of the self itself: Lasch, 1984).

Informational developments are central to the spread of consumerism since they provide the means by which people are persuaded by corporate capitalism that it is both a desirable and an inevitable way of life. Through a sustained information barrage, attests Schiller, 'all spheres of human existence are subject to the intrusion of commercial values . . . the most important of which, clearly, is: CONSUME' (Schiller, 1992, p. 3). Here I telegraph some of the ways in which it is argued that consumer capitalism is encouraged by the 'information revolution'.

First, television is enhanced to become a still more thorough means of *selling* goods and services to the individual buyer and to bolster the consumerist lifestyle. Television has already contributed much to the stay-at-home ethos of consumerism, and critics anticipate that flat-screen television sets, 3-D vision, home entertainment systems, internet and computing will deepen this trend as they merge onto integrated home information systems. Robert Putnam (2000), in his influential book concerned with the decline of 'social capital' in the United States, presented compelling evidence that 'more television watching means less of virtually every form of civic participation and social involvement' (p. 229), television stealing time and 'encourag[ing] lethargy and passivity' (p. 238) that contributes to 'civic disengagement' (p. 246). For all the talk of 'interactivity' that has accompanied digitalization, there is reason to suspect that 'interaction' to vote for or against the removal of a contestant in a 'reality TV' show will do nothing to shake viewers from the lethargy of 'couch potato' lifestyles. Moreover, as these and other information technologies further penetrate the home, so too their programming bears the imprint of those who would use it to further stimulate consumption. Advertisers and sponsors especially have created more, and more intensive, ways of getting across their messages to audiences: one thinks here of more careful targeting of images that can accompany subscription television, of the spread of advertorials, of judicious product placement amidst the television serial and movie, of records of previous purchase to urge upon consumers further products . . .

Second, the programming itself encourages a consumerist lifestyle. Thus the symbols of success, beauty, fashion, popularity, approval and pleasure that are displayed in everyday television are presented to the public, which in response yearns for them and seeks for them on the market (Ewen and Ewen, 1982; Ewen, 1988). The cult of 'celebrity' (Rojek, 2001), classically conceived as being 'famous for being famous' (Boorstin, 1962), exacerbates these tendencies. These are, of course, arguments routinely presented in condemnations of the 'means of persuasion': the populace are brainwashed into chasing after 'false needs' that are manufactured to aid in capitalism's perpetuation rather than in response to genuine ones. One might mention here the remarkable phenomenon of 'celebrity culture' that has such presence on television and in tabloid newspapers. This is not entirely novel, to be sure. Yet it appears more pervasive than hitherto, thanks in part to ubiquitous media. 'Reality TV', talent shows like *American Idol*, footballers and WAGS (wives and girlfriends) characterize the cult of celebrity, wherein people of little talent strive to sell themselves (Bauman, 2007).

The third argument, however, is less frequently made. This suggests that computer communications technologies are exacerbating the tendency for the marketplace to replace self and communal organization. Where once, for instance, people grew much of their own food in the garden, or perhaps made their own clothes, nowadays virtually all of our requirements are met at the supermarket or through the chain store (Seabrook, 1982b). Similarly, it is suggested that television and TV-type technologies take away the responsibility of arranging one's own pleasures, replacing it with a new *dependency* on a machine which presents, in the main, diverting entertainment at which one gawks.

Fourth, new technologies allow greater surveillance of the wider public by corporations which are then in a better position to address messages of persuasion towards them. Years ago Dallas Smythe (1981) coined the term 'audience commodity' to draw attention to the fact that an important function of television was to deliver audiences to advertisers. The acid test for success was not to be found in the content of the programming, but in the numbers watching who could be sold to the advertiser. This continues today, with a vengeance. For instance, free 'newspapers', delivered to every house in a given area, are not really intended to be a vehicle for informing householders of local news and events (sceptics might examine the free 'newspapers' in their own town to test this assertion); their central concern is to be in a position to claim to deliver to the advertiser every house in a given neighbourhood. This is, of course, a pretty crude form of surveillance (though a good deal more precise than broadcast television or radio). Nonetheless, much more sophisticated forms come from the selling of databases such as are held electronically by professional associations, clubs and sales records. Again, new technologies enable the ready development of profiles of customers and potential customers to be created by cross-referencing of such sources, to be followed by targeted persuasion. Here subscription television has great possibilities since it facilitates the segmentation of viewers by channel, programme preferences and even by volume and regularity of watching. Kevin Wilson (1988) coined the term 'cybernetic marketing' (p. 43) to draw attention to the prospect of interactive technologies being used for shopping from home via the television monitor or PC. Joseph Turow and colleagues (2005) provide sobering evidence of retailers' use of the internet to 'datamine' computerized records for commercial purposes, a practice encouraged by widespread public ignorance. Online stores can closely follow movements of site visitors, amass information that enables consumer profiling, and then target such customers. More intimate still, where the consumer can be induced to 'sign in' with a password, the 'store gains a gold mine of information' (p. 6) that can be enhanced further by adding information made available by data brokers. Extensive profiling of internet users is undertaken: What search terms are used? Which sites visited? For how long are they connected? How regularly? What network of 'friends' does the user have? Where do they live? What is their demographic? Answers are amassed and worked on the better to sell the information (or, better still, to use for one's own marketing purposes) to those who wish their messages to be targeted. In such ways people may be ushered into still more privatized forms of life, while at the same time the suppliers will be able to construct, electronically, detailed portraits of every purchase. Thereby each transaction may be monitored, each programme watched recorded, contributing to a feedback loop that will result in more refined advertising and cognate material to further lock the audience into consumerism.

Objections to Critical Theory

This chapter has concerned itself with Critical Theorists' way of seeing the 'Information Society'. What, though, about some critical evaluation of their claims?

There are numerous objections to be made. One which is quick to the lips nowadays concerns the issue of policy. On the one hand, it is objected that it is hard to find in the writing of critics any practical propositions. 'What would you do, then?' is a cry of many. On the other hand, and often connected to the same point, is the alacrity with which those who oppose Schiller and his ilk proclaim that the collapse of Communist societies invalidates the critique. Since it is at least implicit in the writing of Schiller that a non-capitalist form of social organization is possible – for instance, he recurrently favours 'public information' over 'private' forms – and since the major experiments in collectivism have dramatically come to an end, the Critical Theorists are, not unreasonably, asked to respond to this objection.

But the insights of Critical Theorists are neither obviated because they do not present an alternative policy nor nullified simply because non-capitalist regimes have fallen. The major value of the work of Schiller lies in its capacity to understand and explain the 'information age'. This is important not least because any alternative form of society that may be conceived must, if it is to be credible in any way, start with a sound grasp of the realities of the here and now. Very many future scenarios, and coming Information Society sketches are commonplace, actually commence their analyses from idealistic premises such as the 'power and potential of technology' or 'just imagine what we could do with all the information becoming available'. A distinct advantage of Schiller's accounts is that they remind us to start with an understanding of things as they are before we begin dreaming about alternatives.

Further, in explaining the genesis of the 'information age', Schiller's work presents the *possibility* of radically other ways of organizing society. Seeing that the Information Society has a *real human* history, that it is made by social forces, by the same token we may imagine *another* way of making. To hold to the possibility of an alternative does not mean that one must endorse the only one – Communism – that has presented itself to date and subsequently disastrously failed. It does mean, however, that one might look afresh at issues such as research and development and investment decisions, aware that *this* rather than *that* one has consequences for the technologies that will appear down the line. We do not, in other words, have to accept what is given as far as technologies go once we understand that human decisions have led to *these* technologies being developed in *those* ways. We can also see that policies created or changed in, say, the area of telecommunications carry with them futures – further acknowledgement that *human* decisions do make a difference. Far too often in analyses of the Information Society the role of human agency is ignored, developments presented instead as the outcome of an unstoppable logic of technology.

Valid as these points may be, are they sufficient to answer Schiller's critics? It is interesting to compare the Marxian analysis of the Information Society with those coming from the Right, not least because they have a good deal of consonance one with another – with the important proviso that, to those from the Right, there is no feasible alternative to capitalist organization. That is, the 'information revolution' is also conceived as a creation of a particular type of society – capitalism – and therefore it is possible to imagine alternative social forms, but each is judged inferior to the (admittedly imperfect) capitalist system. Francis Fukuyama (1992), in a book which achieved a good deal of attention when it

appeared, offers an account not radically dissimilar to that of Marxist scholars. *Of course*, he argues, we live in a capitalist society, and *of course* market criteria are key determinants of what gets produced in what circumstances. A crucial difference, however, is that Fukuyama asserts that capitalism is superior to alternative economic systems (and that it can help deliver democracy) in that it manages to most efficiently generate wealth. Moreover, while Fukuyama concedes that collectivism may have been able to demonstrate some success in an era of heavy industry (it could build road and rail infrastructures, boost factory production and so on), he contends that it is impossible to so achieve in the 'information age' when adaptability is at a premium and markets and entrepreneurs come into their own. Thus he writes that communist societies are

much less able to cope with the requirements of the information age. One might say in fact that it was in the highly complex and dynamic 'post-industrial' economic world that Marxism-Leninism as an economic system met its Waterloo.
(Fukuyama, 1992, p. 93)

Such an observation may make one pause before total endorsement of Schiller's approach.

Another objection is that there is a strong sense of a 'fall from grace' in Marxian accounts. Demonstrating increased corporate influence, the spread of market relationships and the development of consumerism, it is easy enough to conclude that things have got worse. The implication, for instance, is that a deluge of 'garbage information' has swamped what was once reliable knowledge, or that the spread of computer network facilities has led to more observation and thereby tighter control of workforces, citizens and individual consumers.

But we need to be sceptical of the notion of a 'decline', if only because we lack reliable historical and comparative knowledge. Certainly it may be shown that contemporary information is flawed in particular ways, but we must be careful not to assert that this necessarily makes it worse than hitherto. Further, as Anthony Giddens (1990, 1991) argues, the imposition of technologies for purposes of control or even to inflate the sales of corporate capital does not inevitably result in wholly negative consequences. For example, it is possible that systems of surveillance *both* strengthen managerial control *and* increase choices for people. An instance would be credit card systems, which have undeniably resulted in greater monitoring of individuals by corporate capital; at the same time, these capitalist enterprises have also provided a great convenience for many people, facilitating economic transactions in many spheres of life. Another might be those e-mails from Amazon that follow one's purchase of a few books or household objects. They can be pesky and occasionally way off line ('I did a one-off repair of the bathroom toilet and don't want to look at plumbing systems'), but it would be churlish to deny that they can also help keep one abreast of relevant literature or even the range of DIY gadgets.

A cognate objection is to the suggestion of one-way commodification of relationships. It is hard to ignore the pervasive intrusion of market relationships in so much of life, from television services to the care of children. Lawrence Lessig

(2002) provides timely warnings about the absence of 'fair use' protocols that allow reasonable quotation from text-based sources without infringement of copyright when it comes to music and movie production. New technologies make images and sound much more amenable to use in production of, say, a critical review or parody, but the same digital processes and the absence of 'fair use' clauses means that originators of those images and sound can prevent – or charge for – every phrase of a sound or still being used. Failure to comply with such insistence on proprietary rights risks being pursued for 'digital piracy'. Some might find this absurd: how can one imagine having to pay a fee for every quotation from Shakespeare or from the poetry of Robert Frost? However, it is much easier to believe that customers will expect to be charged each time they quote a Rolling Stones song or reproduce a Tom Cruise photograph, and as the internet further commercializes we might anticipate more such charging.

However, there are significant counter-tendencies to this advance of commodification, as may be witnessed with the development of cyberspace. Thus we have the growth of blogging, chat rooms and electronic communities, the spread of web pages (many of which are non-commercial) and the availability of free downloads (notably for music, but also for out of copyright literature and poetry). All such represent instances of *decommodification*. They may only be a temporary phenomenon that will be eroded by further commercialization, but, for now at least, they are at least a partial refutation of the Marxian claim that the market continues on its inexorable way in informational affairs.

On the subject of information inequalities, it may be noted that the radical critique, while it helpfully focuses on class differences in access to information resources, works with a crude conception of the stratification system. To distinguish between the 'information rich' and the 'information poor' avoids precise delineation of who these are and fails to consider the complexity and range of different positions in a class-divided society. In short, the model lacks sufficient sociological sophistication to allow consideration, say, of gender, racial and ethnic differences, to say nothing of the expansion of non-manual groups and the resulting positions these occupy in the class hierarchy.

Similarly, Schiller's attention to the corporate sector as the major beneficiary of the 'information revolution', while clearly being implicated in the class system, cannot be entirely accepted since institutional wealth should not be equated with personal wealth. That is, the 'information rich' as people are not synonymous with corporate capital, and the gap needs exploring in any acceptable analysis of information inequalities.

Further, Schiller's underdeveloped conception of class fails to take account of cultural (as opposed to economic) capital, though in the realm of information/knowledge cultural capital such as higher education, access to libraries and linguistic command may be decisive (compare, say, the affluent but ill-educated with the modestly rewarded but highly literate). I would not wish to counterpose cultural and economic capital too sharply, but I would underline the need for a more sophisticated account of stratification in order to gauge differential access to and use of information resources. This is not to ignore inequality as an important variable with regard to information access, availability and attainment, but we do

need to get beyond generalizations to an appreciation of the complexities of stratification in this regard. There are likely to be significant differences between urban and rural locations, as there are between ages, family household and migration status as regards information matters, as there will be within socio-economic categories.

Another objection has to be the Critical Theorists' tendency to offer an 'all or nothing' view of information. Against this, it could be contended that, while there is a good deal of 'garbage information' in circulation, this does not necessarily mean that all the information directed at the general public is rubbish. Indeed, while the output of television may be seen to have expanded dramatically, and while the bulk of this may be a cocktail of chat, action adventures and soaps, in absolute terms it is possible to contend that high quality information has also increased. In Britain, for instance, the introduction of Channel 4 in the early 1980s may have brought more American serials to the screen, but it has also increased the range and depth of television programming. However, while audiences are pitifully small for Channel 4, something that begs questions of the capabilities (or at least the willingness) of audiences to discriminate qualitatively between what is made available, this is, if not simply a matter of cultural capital, a close cousin.

A cognate matter is the issue of the rapid take-up of time-switching technologies (both for recording off-air and the adoption of facilities to watch a particular programme at one's leisure), which, in Britain at least, has had an as yet immeasurable effect on viewing. One may speculate, however, that time-switching is allowing at least some audiences the flexibility to increase their access to high quality information (arguably the sort scheduled for late-night minority audiences, put on too late for those who must rise before 8 a.m.). Much the same point may be made about pulp fiction. It is hard for intellectuals to look across the titles in W. H. Smith and not feel a sense of dismay. Shallow and slick crime and soft pornography jostle for the big sales, readily making one yearn for Virginia Woolf and T. S. Eliot, who are lost amid the likes of Tom Clancy and Jeffrey Archer. However, if the biggest sales are for pulp fiction, it is also the case that, in absolute terms at least, the classics are more available and more popular than ever thanks to the 'paperback revolution' and, nowadays, to the digital download that offers many free.

Turning to information's alleged role in the spread of consumerism, it is as well to say at the outset that this is not a point restricted to Marxian critics. The identification of excessive individualism, the weakening of collective bonds and the central role in this of market practices have been concerns of a wide range of thinkers covering a spectrum from Right to Left: Ortega y Gasset, T. S. Eliot and F. R. Leavis to Jeremy Seabrook. A recurrent argument is that this requires manipulative information to instil in people 'false needs', to convince them that some personal weakness or hidden anxiety may be rectified by purchase of a given object such as shampoo or scent.

However, such positions have come under attack for several related reasons. At root there is some conception that once upon a time people had genuine needs which were met by simple things, that somehow life was more authentic, even if people were materially worse off. An image of 'plain living' but 'high thinking' is operative here, the idea of the working man coming home after a shift in the mine or factory to read his Cobbett or Hardy. And, of course, one objection is that life

never was like that; for example, in the nineteenth century fiction for the working man – when he read anything – was penny dreadfuls, sensationalized trivia about murder, rape, drink and fallen women (James, 1963; cf. Rose, 2001).

Another objection moves us on to a contemporary stage and refuses the presumption that people are duped by an avalanche of advertisements and related imagery. The belief of postmodernist (and other) adherents – whom we encounter in Chapter 12 – is that ordinary people are quite smart enough to see through the artificiality of consumerist images (they know holiday brochures don't always tell the truth, that drinking beer doesn't guarantee friends and camaraderie), smart enough indeed to appreciate this imagery for the parodies it often offers, for its irony, its use of camera, colour or whatever (Schudson, 1984).

Further, it may be a mistake to think only in terms of either privatized lifestyles or ones which are communally oriented. It is not inevitable that people who retreat into the home are thereby more self-engrossed, more cut off from neighbours and local affairs (Bellah *et al.*, 1985). Indeed, as Peter Saunders suggests,

Emphasis on the importance of home does not necessarily result in withdrawal from collective life outside the home, for it is possible for people to participate fully in both spheres of life.

(Saunders, 1990, p. 283)

Further, the proposition that consumer goods sell only because people have been seduced into 'false needs' by clever marketing is, to say the least, contestable. Such a view suggests that imagery takes precedence over the products the advertisers are called upon to promote. However, people do not buy chocolate biscuits because of advertisements, but because they have an appealing taste. Similarly, it has to be said that a good many of the new information technologies are indeed superior products to their predecessors – for the domestic market one need think only of compact disc players, the splendidly convenient iPod, modern sound systems and even television sets, which today are more attractive, provide better quality and are more reliable than anything before. Moreover, it is surely also the case that large numbers of people today buy consumer goods (from perfumes to entertainments) not because they have swallowed the puffery of the advertiser, but because they get genuine pleasure and increased self-esteem from these things.

It has to be said that Critical Theory tends to offer a somewhat functionalist account of the relation between contemporary capitalism and information trends. The emphasis on information being provided for the privileged, for the needs of consumerism and for the benefit of the corporate realm envisages a society that is tightly locked together, each element fully supportive of the other. But where, it might be asked, are paradox, contradiction and serendipity, the *mess* of the real world? The fit between parts seems too neat, leaving one yearning for acknowledgement that things are not so straightforward (cf. Mann, 2011).

Herbert Schiller argued consistently that the military functions as an arm of the corporate world. There may be a broad truth in this, but when one reflects, say, on the armed involvement of the United States in the former Yugoslavia it is hard to identify a meaningful corporate advantage to be gained. In fact, the American

Secretary of State at the time, James Baker, resisted involvement in 1991 on grounds that 'we have no dog in this fight'. The US had to be cajoled into participation by events (notably the massacre of over 8,000 male inhabitants of Srebrenica in 1995) and this was conducted by NATO force bombing from the air. Later involvement in the region, in 1999, to thwart Serbian aggression in Kosovo, was again a NATO-led intervention that was prosecuted on humanitarian grounds, where the leading advocate was Britain's Tony Blair, whose closest ally, President Clinton, was reluctant to risk US ground troops in a proposed ground attack. The 2003 invasion of Afghanistan was scarcely advantageous to American corporations as a whole. Again, while some accused the United States of having an economic agenda in invading Iraq in 2003, ten years later it is hard to see any overall corporate gain from this multi-billion dollar military commitment.

One has similar misgivings about the argument that American news media is in effect a propaganda arm of US capitalism and its 'empire'. It is hard to deny that American media does present a US-centric view of the world that in general foregrounds the views of its own politicians and spokespeople. This 'propaganda model' of Herman and Chomsky (2008), that Schiller endorsed, carries with it risks of misperception and misunderstanding that need to be guarded against. Nonetheless, the argument requires qualification. For instance, accusing news of national centrism is a common charge, but it is difficult to see how this can be eliminated. News necessarily is of interest to audiences, and these prioritize issues close to themselves: family and friends first, region second, nation third and later, as a rule, international matters. As I write there has been a terrorist attack on the Boston Marathon in April 2013 in which three innocents were killed at the hands of what appear to be two 'home-grown' killers of Chechen descent. American media went into round-the-clock blanket coverage for several days. This coincided with earthquakes in Iran and South West China, where deaths were in the hundreds, and it contrasts with the daily news from Iraq, Afghanistan and Syria, where much more deadly attacks are almost a daily event. Undoubtedly, residents of Beijing and Tehran would recognize a media bias here and, of course, systematic national bias in news must be acknowledged. But Schiller's charge that it serves US capitalism is an oversimplification (which takes no account of the accusation that reportage carries with it a liberal bias or the more positive argument that it often serves to expose the crushing of dissent, corruption and human rights abuses [Rothkopf, 1997]).

A more prosaic instance to warn against Schiller's overly functionalist analysis might be found in the recent history of the mobile phone. When mobile telephones first appeared they were used primarily as a telephone that could be carried by the user. Nonetheless, imaginative users began to use the mobile as a means of sending text messages since these reduced costs and, pretty soon, this was a way of avoiding voice contact that could be advantageous in some circumstances (Agar, 2004), as well as soon morphing into portable internet connectors (Chen, 2011). The point here is that there are gaps between the intention of developers and the actual usage. Moreover, users' imaginations can feed back and transform technologies. It is a similar openness that one needs to keep in mind when thinking about corporate structures and the information revolution: whatever the power of the former, the agency of the latter needs to be held in mind. People are not altogether dupes.

Finally, one might challenge the claim of Foster and McChesney (2011), who have taken up the mantle of Schiller in their examination of the internet. Their critique of private ownership of the internet and access on the basis of ability to pay is fundamental to their advocacy of publicly provided digital highways where citizens have a right to connection. Their case relies on capitalism excluding groups which cannot afford the connectivity fees because charges will be set at a level that some cannot afford. In this way, 'a digital underclass encourages people to pay what it takes to avoid being unconnected' (p. 5). I am puzzled about this assertion. It is the case that between 10 and 15 per cent of US households have yet to be connected, and it is undeniable that the better-off homes get the premium services, but this does not mean that even poor homes cannot – if not now, in the near future – afford connectivity. After all, capitalism delivers Coca-Cola to pretty much everyone, as it does television and the regular telephone. It is not self-evident that capitalism, left to itself, will not be capable of installing digital technologies in every home in the United States.

Conclusion

Theses caveats aside, there is a very great deal of value in Critical Theory, something surely evident from the bulk of this chapter. Indeed, as I argue in the final chapter, Herbert Schiller seems to me the most helpful yet underrated scholar of the Information Age. Several of its major emphases seem to me indispensable for an adequate understanding of the significance of information. Herbert Schiller's work, in starting with the real, substantive, world rather than with 'technological possibilities' or 'imagined futures', offers an important understanding of major dimensions of the role and significance of information and allied technologies.

He may have overstated his case at times (Tunstall, 2006), but the attention he draws to market criteria and corporate capitalism cannot but convince us of their pivotal role. Furthermore, he has a sharp eye for social inequalities, which are not set to disappear. Quite the contrary, he reveals, locally and globally, how these are key determinants of what kind of information is generated, in what circumstances and for whose benefit. Finally, the identification of consumer capitalism, however much one might want to qualify the term and particular conditions, is a helpful reminder of just how much the informational realm is dedicated to the pursuit of *selling* to people who appear to be retreating further into privatized ways of life.

Note

- 1 The term can be used to distinguish intellectual work that is influenced by Marxist thinking in terms of analysis from that which subscribes to the wider political Marxist package.

Information and democracy 1: Jürgen Habermas, the public sphere and public service institutions

Introduction

There is a disparate group of commentators on the 'Information Society' that, while conceding that there is a lot more information in circulation nowadays, remains unenthusiastic about pronouncements of an 'information age'. Such commentators tend to regard this information as being tainted, as having been interfered with by parties which have 'managed' its presentation, or which have 'packaged' it to 'persuade' others, or which have 'manipulated' it to serve their own ends, or which have produced it as a saleable commodity that is 'entertaining'. These thinkers lean towards the view that the 'Information Society' is one in which advertising campaigns, 'disinformation' strategies, the public relations 'expert', the parliamentary 'lobbyist', the judicious 'presenter' of government policy, the 'official leak' from 'reliable sources' and the commercial imperative to produce 'infotainment' all play disproportionate roles.

For many of these observers this amounts to the democratic process itself being undermined, since, if the people are denied trustworthy and reliable information, how can the ideal of a thoughtful, deliberative and knowledgeable electorate be achieved (Ackerman and Fishkin, 2004)?

Early in the nineteenth century James Madison (1751–1836), the fourth President of the United States and architect of the US Constitution, articulated this apprehension, observing that

people who mean to be their own governors must arm themselves with the power which knowledge gives.

(Madison, 1953, p. 337)

Madison's words remain a clarion call to those who question whether the greater volumes of information available today make for a healthier democracy. There are plenty of pundits who insist that the spread of interactive and networked technologies will boost democracy, by making representatives answerable to the public, producing a better informed citizenry and even propelling uprisings against governments from Athens to Port Said (e.g. Shirky, 2011). Against this, however, are those who suggest that the spread of the internet, television and other media may actually contribute to a *decline* in civic involvement, with people

failing to participate in the democratic process as they retreat into private worlds of saturated infotainment. To such as these our forebears read little beyond the Bible, Shakespeare and the occasional pamphlet, but they were our superiors in terms of understanding and wisdom (cf. Rose, 2001). I cannot resolve that debate here, but what I intend to do is set out foundational terms, scrutinize contributions and weigh what evidence can be gleaned. At the least I trust I can show that the issues are more complicated than they may first appear and that the Information Society offers no royal road to a fuller democracy.

These and related concerns have generated an enormous literature that I cannot cover comprehensively here. Even so, this remains a lengthy chapter, so I outline here its organization to help readers plot a way through. First, I observe concerns about a 'democratic deficit', something critics charge is exacerbated and even created by a surfeit of uninformative and misleading information. Second, I consider the meaning of democracy today, the better to understand its import. Third, I review some of the work of Jürgen Habermas, whose concept of the *public sphere* has been hugely influential in considerations of the connection between information and democracy. I will sketch Habermas's historical analysis of the emergence of the public sphere, but move to, fourth, more recent matters of information policy and practice. Here I will focus on *public service institutions*, such as libraries and state-subsidized television, that frequently defend themselves (in my view tendentiously) as constituents of the public sphere, hence vital to the health of democracy. Fifth, I reflect on difficulties facing such public service institutions over the past two decades or so from technological change, socio-economic trends and political opposition, before, sixth, suggesting that they – and even the public sphere concept on which they draw – are at risk of becoming outmoded. Addressing these final issues, I return, seventh, to questions of the changing meaning of democracy, where I urge a more limited use of the concept *political public sphere*.

Running through this and Chapter 10 is the central concern of democracy's connections with information. Though there is widespread agreement that democracy is now of inestimable importance, being perhaps the only universally embraced value, thinkers across the political spectrum have different views about what is required (if anything) of information. In this chapter we meet thinkers who believe not only that information is crucial to a healthy democracy, but that political involvement and state subsidies are required to ensure that it is of an appropriate kind and quality. Because of their commitment to state intervention I describe this, rather loosely, as a *social democratic* position. In Chapter 10, we meet opponents of the social democratic worldview, thinkers who suggest that capitalism is the society best suited to delivering democracy, that states should be minimally involved and that any required information best comes from the free market left to its own devices.

Democratic deficit and the need for an informed electorate

Why there should be concern for democracy in analyses of information? One important reason echoes the American Founding Fathers' conclusion: a healthy

democracy needs its citizens to be well informed so that government may be well chosen, observed and removed where necessary by a discerning electorate. And it is sobering that, where we set out with this assumption, what is striking is how deficient – how ill informed, unengaged, apathetic and ignorant – is so much of the electorate.

In countries such as the United States and Britain democracy appears fully established: citizens have long had the vote, there are well-established procedures for conducting elections, there is a plurality of competing parties, and there are multiple channels for political debate. Yet voter turnout is low even at national elections, membership of political parties has plummeted, and it is often difficult to persuade candidates to run for local office.

In part this is evident in the low esteem in which full-time politicians are held, with opinion surveys repeatedly reporting that they are perceived as untrustworthy, self-serving and unlikely to change things much. In Britain this reached a nadir during the spring and summer of 2009 following revelations produced over several weeks in the *Daily Telegraph* newspaper of expense allowance claims made by Members of Parliament. There was extensive evidence of excess and egregious practice, notably for ‘flipping’ where either ‘first’ or ‘second’ homes were declared to be primary residences in order to reduce tax liabilities and claim costs of refurbishing. An upshot was resignations and goings, retirements and deselection of members, plus an outpouring of public revulsion against all politicians.

The United States achieves a turnout for Presidential elections of barely half its voters (the worldwide hoopla that greeted the election of Barack Obama in November 2008 needs to be set against the fact of a 65 per cent turnout of the three-quarters of eligible voters who actually registered), while the United Kingdom has witnessed a steady decline of participation in national elections since 1945 (then around 80 per cent of citizens voted, by the time of the 2001 and 2005 elections turnout was down to 60 per cent).

Those who identify signs of a democratic deficit observe other deficiencies. These include high levels of ignorance among the public as regards current affairs and politicians (Jacoby, 2008). It is commonplace to come across surveys that show high proportions of the public are incapable of naming more than one or two members of the government (and are often much more able to identify celebrities, soccer players and stars of television soaps) or being remarkably ignorant about foreign policy. For example, one recent British survey, undertaken late 2003, found that only half the adult population could identify the high profile Deputy Prime Minister of the time, John Prescott,¹ while a survey the year before found that 10 per cent of British adults could not name a single world leader (though a similar proportion could name five actors from *EastEnders*).²

Chris Hedges (2008) conjures ‘America the Illiterate’ to conceive a *majority* in that nation that is ‘informed by simplistic, childish narratives and clichés’, comfortable only with images, slogans and personal narratives that ‘do not require cognitive or self-critical skills’. It fits with this that Presidential speeches show a decline in complexity of language use (from vocabulary to reasoned argumentation) and a shift towards use of emotive and easily understandable phrases (Lim, 2008).

Critics generally go beyond observing such democratic deficits to identify what they regard as a major culprit, namely a commercial media system that is dedicated to profit maximization. This leads to content that is escapist, shallow and hucksterist because the media producers must achieve the highest possible audience figures while stoking the least possible controversy, since that risks being so disconcerting as to drive away audiences (of course there is a surfeit of faux controversy in the tabloid press about celebrities, the personality traits of politicians and sports stars). To be sure, audience size *per se* does not translate directly into profitability since it is wealth that most appeals to a commercial media. If a specific demographic attracts advertisers because it is well educated and affluent, the product will be able to reflect something of this, perhaps by offering content that addresses its lifestyle or even its social concerns. In each instance, however, the determinant remains profit maximization, media reliant on and prioritizing the ratings or the sponsor (and often both together). Either way the consequences for content are major, with a general narrowing of the range of coverage, a deluge of trivia and a disposition towards conservatism (Miliband, 1969, chs 7–8).

Public ignorance is thought to be made worse by an inadequate media system that supplies abundant information, but of an inappropriate kind, being obsessed with personality, glamour and the ephemeral. Infotainment is what media offer, and this is lacking in nourishment. It constitutes ‘junk information’, comparable to the foodstuff which is ubiquitous yet bad for one’s health. A likely consequence is that vulnerable audiences, befuddled by a diet of garbage information, will be rendered incapable of sifting nutritious from junk information, thereby pressured into reliance on image, appearance and personality traits – accoutrements of the celebrity culture that finds such accord with commercialized media – in coming to decisions about issues of great moment and complexity (cf. Popkin, 1994).

Critics are alarmed even further by what they perceive as the intrusion into political matters of celebrity itself. That is, politics is increasingly seen as infected by celebrity culture. There are many dimensions of this, from the rock singer endorsing a favoured candidate to the presentation of candidates themselves in celebrity form. In this respect, the success of Ronald Reagan, a Hollywood B-movie star, in achieving the US Presidency (and widespread approval) during the 1980s could be interpreted as the triumph of style over substance, when a genial joker could achieve the highest office with a good line in quips. Some years later, in 2003, Arnold Schwarzenegger became the Governor of California, a post once held by Reagan, and this triumph of a movie actor renowned for playing muscle-bound toughs stimulated yet more concern that politics was becoming unduly influenced by the superficialities of Hollywood glitz.

Analyses that deplore voter apathy and ignorance, and which regard a private enterprise media system as incapable of addressing these conditions, may be drawn towards referring to ‘couch potato democracy’. Here people may vote every few years, but they will do so while uninformed about policies, parties and issues. To make matters worse, in recent decades there has emerged an array of professionalized people and organizations that are skilled in using media to advance their own and their clients’ political (and other) ends. Public relations (PR) as an industry, spin doctors, campaign managers, corporate communications

specialists, lobbyists . . . these are present wherever an issue of political or social significance is found (Davis, 2002). Such media manipulators are a pervasive presence and they are not set to disappear, but they are most comfortable amidst a commercialized environment where they can purchase time and space for their own messages, and where the threat of advertising and sponsorship income being withdrawn must always be a consideration. It generally suits such groups when citizens do not investigate issues in significant detail, since digging can lead to the posing of awkward questions. It is more acceptable that voters make a judgement, *faute de mieux*, on the 'character' or 'trustworthiness' of the company or candidate whose position PR tries to advance. Such activities contribute to the condition to which Benjamin Barber (1984) refers as 'weak' democracy, where voters do, and are asked to do, little but endorse the favoured individual or party every few years and acquiesce to the way things are. It is something Barber deplors. It is also evident that he and like-minded critics favour 'strong' democracy, where citizens are engaged, interested and appropriately informed about the political terrain.

While it is commonplace for critics to suggest that the market is incapable of supplying reliable information to the citizenry, it is also usual for them to argue that political and business elites manipulate information in their own interests. The charge, then, is not merely that markets operate in ways such that adequate information is not made available or even generated in the first place, but that business leaders and politicians more generally intervene to manipulate information in ways that favour themselves. In evidence we may point to the swell of analysis that pinpoints the spread of PR, spin doctoring, media management and such like as contributors to the spread of interested information (Ewen, 1996).

It follows from this that neither the market system nor politicians can be trusted to supply the information required of democracy. But the problem, then, for critics is that their advocacy – let the state intervene to ensure resilient and reliable information availability – must be suspected since we have so much evidence to show that politicians endeavour to shape information to suit themselves. This matter is not lost on critics, some of whom at least are sensitive to the apparent contradiction of their position (nor is it lost on their pro-market critics, whose greatest hostility is reserved for the state, to whom we turn in Chapter 10).

It follows from concern about the democratic deficit, and the conviction that inadequate media play a key role in fermenting this condition, that critics wish for reform. The premise is that any meaningful democracy must have an informed electorate. If the public is ignorant, then to such critics democracy is weak. If people are unaware of the great issues of the day, government cannot respond to the general will of the people. If citizens lack reliable information, they may also be easily manipulated by those in the know (this vulnerability of the public is another favoured theme of critics). This is the underlying logic of the social democratic position that moves readily from identification of flaws to recommendation of state intervention to ensure that the public may be appropriately informed.

There is a distinguished genealogy on which these critics may draw. The supposition that democracy is damaged when the voters lack means of becoming informed finds support in the Founding Fathers. I have already mentioned James Madison. He was not alone in emphasizing the importance of reliable information

for a vibrant democracy. His fellow Founding Father and second President of the United States, John Adams, expressed similar sentiments, insisting that ‘liberty cannot be preserved without a general knowledge among the people’ (Adams, 1765). Moreover, Adams went on to assert that ‘the preservation of the means of knowledge among the lowest ranks, is of more importance to the public than all the property of all the rich men in the country . . . The only question is, whether it is a public emolument; and if it is, the rich ought undoubtedly to contribute, in the same proportion as to all other public burdens, – that is, in proportion to their wealth, which is secured by public expenses.’ Therein lies the case for state support of information: distribute through taxation to ensure everyone has access to robust information.

Contemporary critics readily draw on this legacy. Thus Bruce Cole (2003), chair of the National Endowment of the Humanities (NEH) – the federally funded body that is the largest supporter of humanities programmes in libraries, museums, public television and the like – could insist on the pertinence of the humanities for sustaining democracy, writing in the *Wall Street Journal* that ‘the diffusion of knowledge is the only true guardian of liberty’. Addressing a national meeting of the American Academy for Liberal Education, Cole (2002) told listeners that the NEH’s ‘founding legislation declares “democracy demands wisdom”, going on to insist that ‘to exist, our country needs educated and thoughtful citizens who can fully and intelligently participate in our government of, by, and for the people’. In the same speech, Mr Cole (2002) observed the ignorance of many Americans of the history of their own nation (and there is no reason to believe that Americans are unusual in this regard). He highlighted surveys that showed high levels of ‘historical amnesia’. For instance,

One study of students at 55 elite universities found that over a third were unable to identify the Constitution as establishing the division of powers in our government . . . and 40 percent could not place the Civil War in the correct half-century. In contrast, 99 percent could identify Beavis and Butthead and 98 percent knew gangsta rap star Snoop Dogg.

(Cole, 2002)

It is in the fight against this ignorance that, attests Cole, humanities plays an important role, so much so that these subjects may become ‘part of our homeland defense’. Citizens in a democracy need to know their history that their democracy may be sustained. They need access to historical information (that comes from public subsidy) that they may be able to identify their virtues and vices, tendencies and trends, and so they may soberly and realistically judge present-day circumstances.

This takes on an especial urgency when one reflects on recent instances of ignorance among citizens. Take the American and British invasion of Iraq that took place in March 2003. The following year the Program on International Policy Attitudes (PIPA) of the University of Maryland (Herbert, 2004) found that

- 70 per cent of President Bush’s supporters believed there was ‘clear evidence’ that Saddam Hussein was working closely with Al Qaeda.

- 30 per cent believed weapons of mass destruction (WMDs) were found in Iraq.
- More than 30 per cent believed the majority of world opinion supported the US invasion.

One does not have to be an opponent of the Iraq War, still less a critic of the presidency of George W. Bush between 2000 and 2008, to be alarmed by such ignorance among so many Americans. The conclusion has to be that there were characteristics of the information environment available to Americans during 2003 and 2004 that denied people an accurate picture. While many Republicans may have been predisposed to believe in the rectitude of the cause against Iraq, that WMDs really were found in Iraq and that the rest of the world supported their war effort, any such wishful thinking was demonstrably false. In face of well-attested information that Saddam had not co-operated with Al Qaeda,³ the acknowledged failure of investigators to find WMDs in Iraq and unambiguous evidence showing worldwide opposition to the invasion (not least in enormous anti-war demonstrations across the world on 15 February 2003), it had to be that the American public was simply not being given the full facts, perhaps was even being deceived. Sure enough, subsequent analyses have suggested that culpability for such misapprehension among the American public lay with 'perception management' by politicians⁴ and the military and an inept media that fell below acceptable standards of reportage (Bennett *et al.*, 2007). It is findings such as this that fire those who contend that arrangements ought to be made to ensure citizens in a democracy have access to reliable and impartial information so that they may make decisions on a firm basis.

Democracy and democratization

Nobel Laureate Amartya Sen (1999) judges that, 'in the distant future, when people look back at what happened in this [the twentieth] century, they will find it difficult not to accord primacy to the emergence of democracy as the pre-eminently acceptable form of governance' (p. 3). It has become, over relatively few years, the clarion call of politics almost everywhere (Potter *et al.*, 1997). At the outset of the twenty-first century half of the world's states are democratic, though little more than thirty years ago only one in three so qualified. In Europe, a region now regarded as a stable democratic order, there were long-established dictatorships in Spain (under Franco) and Portugal (under Salazar) that lasted until the mid-1970s, and Greece was ruled by a military junta for several years until 1974. These regimes are long gone. Furthermore, the collapse of the Soviet Union around 1990 released nations such as Hungary, Poland and the Baltic states (Lithuania, Estonia and Latvia) into democratic systems. Further afield, Central and Latin America, until as recently as the 1990s bywords for murderous dictatorships that reached from Argentina and Chile through Bolivia, El Salvador, Nicaragua and Guatemala, have been able to establish democracies.

Democracy can be fragile and there are instances of its collapse in the face of pressure (Mazower, 1998). One is also sensitive to cases where democratic

elections take place, but which result in ‘illiberal states’ (Zakaria, 1997) that carry out oppressive policies, such as during the 1990s in the Balkans. Nevertheless, the emergence of democracy is remarkable. In the space of two centuries or so it has come to occupy ‘lonely eminence as the sole credible secular basis across the world on which to claim the right to rule and be obeyed’ (Dunn, 2005a). That they rule – or aspire to rule – because of the people’s will is the trump card when it comes to justification for rulers and would-be rulers. Whether or not a nation is democratic has become the decisive test of its acceptability to the wider world.⁵

I propose four *essential* criteria for identifying democracy, the fulfilment of each being a necessary requisite for a regime to be so designated (Tilly, 2007). These are: *the holding of elections and regular re-elections*, *a plurality of political parties*, *the secret ballot and universal suffrage*. Where a society meets all four of these criteria it passes the threshold for admission as a democracy. However, this is not an exhaustive list of criteria and analysts will often wish to introduce additional factors where they want to assess the quality of a democracy. There is, for instance, a cluster of related criteria that includes freedom from violence, the calibre of media, the right to due process in law and rights of assembly and protest. There are then issues around the separation of powers between, for instance, government and judiciary or the military realm and polity, that can be telling, as can the impartiality (or not) of the civil service. There are also questions to be raised about prerequisites of democracy. Marxists used to argue that where there is large-scale absolute poverty and ignorance democracy is meaningless, a perspective echoed in World Bank discussions, where the suggestion is made that raising material conditions comes before considerations of democracy (Siegle, 2007). Questions of the prerequisites of democracy readily extend beyond material issues to matters of education and literacy. Can one have a meaningful democracy, for example, where there is extensive illiteracy?

Nonetheless, I contend that that democracy has four *core* characteristics (elections, suffrage, secret ballots and plural parties), to which one might add, depending on circumstances, a range of additional features that would allow analysts to rank some versions of democracy as deeper than others. However, while such essentialism is valuable (we need to be able to determine whether ‘this is/is not a democracy’), we ought not to lose sight of an important lesson that consideration of these additional features teaches: democracy is not a preordained condition, but is, rather, something created and developed in the world from which it gains and in which it achieves its meanings. In consequence, we have to acknowledge that democracy is not a static concept, but rather one with a history that continues to change in the light of circumstances.

Perhaps it is better to think in terms of *democratization* in order to acknowledge that we are talking about an ongoing process here in which meanings are forged and extended over time. We can better appreciate this concession when we reflect on the importance granted to a robust civil society for the attainment of what Benjamin Barber has called ‘strong democracy’. This contrasts with the ‘weak democracy’ that one might caricature as irregular voting by electors who make little effort to engage with the issues or candidates of the moment. It will not

be hard to understand that those who argue that participation in voluntary associations that at once express and succour bonds between citizens (social capital if you will) are advancing a conception of democracy that reaches beyond the four elemental features identified above.

We may also get more insight from examining the thesis of historian Geoff Eley (2002) in his history of Europe *Forging Democracy*. Eley argues that in Europe struggles for democracy and for socialism (broadly defined) were intimately tied. It was the Left in the nineteenth and twentieth centuries that fought to extend the vote to working people, to create new political parties that extended representation and to achieve the secret ballot. However, particularly since the collapse of Communism, this connection has been sundered. It is untenable now to advance the proposition that democracy is best served by supporting collectivism. Forced to concede that capitalism outperformed collectivism and that communism's political practices are oppressive, a good deal of the Left has fallen silent. This has quietened the Left *tout court*, including non-Communist groups, since collectivism itself is tarnished. Now pro-market voices most forcefully argue that it is capitalism that is best suited to nurture democracy at the same time as it meets material needs (see Chapter 10).

However, to such as Geoff Eley the uncoupling of socialism and democracy has been liberating. This has allowed the Left to leap free of being apologists for what was called 'actually existing socialism' (where elections were phoney, where censorship was rife and where dissidents were persecuted) and, at the same time, to extend the meaning of democracy. In this latter respect the Left, and especially the post-1968 generation, has been to the forefront of democratization struggles that have advanced democracy and transformed its meanings. Struggles for equal rights for women, anti-racist campaigns, and calls to end discrimination on grounds of disability and age have been invigorated by this spirit and have contributed to a widening of what we now conceive as democratization. These struggles have been entered by what are still recognizable as Leftists, not in the name of socialism, but rather in terms of increased opportunities to participate in the wider society on the basis of equality as citizens. Such campaigns, and indeed a wider range of social movements, have contributed to rethinking the meanings of democracy. For instance, an ethos of *tolerance of differences*, the notion that a fully democratic society should acknowledge and embrace diversity, has entered into political thinking. Tolerance of difference is of vital concern to many democrats today and this owes a good deal to the *Soixante-Huiters'* commitment to the promotion of issues of culture and identity in their political (and personal) lives. Accordingly, we better appreciate that the meanings of democracy cannot be frozen and fixed across time. Being willing to see democratization historically helps one understand how it has developed and how it continues to change. Moreover, it opens a window to better understanding of the import of information and communications in this process.

Nations and democracy

When we reflect on democracy we need to hold in mind that it is enacted chiefly within the nation, the specified territory that constitutes a particular country.

There leaders are elected, eligible citizens can vote and parliaments may conduct their business. The nation and democracy are thus intimately connected.

A pertinent question is whether the nation state is nowadays adequate to the tasks demanded of democracy. It is widely agreed that there are now major issues that face our globalizing world that cannot fully be addressed within one country. Think, for example, of global warming and related environmental threats and a need for some sort of co-ordinated planetary action will be clear enough. Moreover, the limitations of democracies that are restricted to national frontiers is evident in an era of routine, instantaneous and often frenetic electronic movements of information that have major consequences for individual countries, though they themselves may be able to do little to influence currency exchange flows, investment decisions and even news transmissions from within their borders.

It follows from this that it is reasonable to ask whether we need now some form of globalized democratic governance that can tackle challenges which appear beyond the ability of nation states to handle. There are massive obstacles to this, given that the nation state has been integral to the history of modernity itself, yet one may discern signs of responses in United Nations bodies, in the extension of the European Union, in the growth of NGOs (non-governmental organizations) that operate transnationally, as well as in a range of treaties concerned with issues such as climate change and human rights that delimit individual nations in the name of addressing supra-national problems. Against this, one might set those who regard existing nations as too large and cumbersome to be fully democratic. Here pressures towards devolution, vividly seen in the United Kingdom, where Scotland and Wales have won their own assemblies, indicate dissatisfaction with existing nation states as vehicles for democratic representation.

Further, while the nation is the container of democracy, the record of the establishment and development of countries presents disturbing features. Michael Mann (2005) documents what he has called 'the dark side of democracy'. He insists that we be aware that nations have been forged on exclusion and oppression of minorities. Nation states in their genesis have recourse repeatedly to religious persecution and attendant ethnic cleansing. From the extermination of natives to the suppression of other faiths and their believers, no nation is innocent. And this legacy remains in the nations of today, though the particular countries may nowadays be vibrant democracies. In Europe, for instance, as recently as 2005, Mann reports that only four European Union member states were less than 80 per cent mono-ethnic (p. 507). This is not chance: expungement and/or suppression of significant minorities had been almost fully achieved in most European countries long ago – here Catholics, there Protestants, here Muslims, there Orthodox Christians, everywhere Jews. A result is that these nations, now democracies, can often find themselves uneasy with different ethnicities, religions and cultures. Situations are changing: religious affiliation, for instance, long the major marker of ethnic allegiance, plays a relatively small role in more established democracies (though for many in Europe the spectre of Islam poses threats, as witness misgivings expressed about Turkey joining the European Union).⁶

Be this as it may, inheritance of monocultural dominance readily contributes to discontent, with calls for recognition of difference in today's democratic Europe.

We conclude this section by iterating that democracy's core features are easily enough identified, though beyond that – in terms of what might be added to its meanings and how it has changed over time – it is subject to redefinition and extension. The nation state that hosts democracy is also subject to stresses and strains that challenge established meanings of the term. Democratization is thus an ongoing project, a route along which stage marks are easily enough recognized, though other indicators take time to come into view.

Public interest information, the public sphere and democracy

We will return to questions about the adequacy of media with which this chapter opened, as also to the changing meanings of democracy, but I want to raise something that highlights the importance of there being reliable information available for the conduct of democratic politics. Without trustworthy data on, say, population trends, mortality rates, migration patterns, consumer expenditure, educational credentials, welfare expenditures, inflation rates and hospital performance, worthwhile participation in democratic affairs is hard to envision. To those wanting to engage in debate, access to such information is a requisite since otherwise one must rely on personal experience. Such statistical information is what sociologist A. H. Halsey has called 'social arithmetic', and it is as crucial to citizenship as being able to count accurately.

It is essential that an infrastructure is in place that ensures the gathering and dissemination of such statistical data. These statistics are gathered from diverse sources, from vehicle registration centres to business employers, but the major responsibility rests with government since only it has authority and resources to conduct such exercises. These statistics are *public interest information* because essential to conduct political life, though it is difficult to imagine them gathered by commerce (e.g. who would pay for information on the spending habits of widows dependent on the state pension?).

Such statistics come chiefly to citizens via the media that use them as a matter of routine (and inflect things in various ways, for example to comment on the popularity of marriage, the age of first-time mothers, the state of the health service and the expansion of immigration). This is probably why many people underestimate the import of statistical services; they receive them at second hand, pre-digested in a politician's speech or a newspaper report. However, it is vital to appreciate that democracy relies enormously on the public interest information represented by accurate statistical data.

How else might a society know itself were not diligent and impartial statisticians gathering information, traceable often to particular households yet also aggregated into data sets, which allow us to understand the changing shape of the nation? Imagine how disabling it would be were politicians not able to discuss, say, changes in standards of living or regional development, without recourse to authoritative data. To be sure, politicians draw upon a variety of statistical sources

and of course they vary enormously as regards their interpretations of what these figures mean, but were the figures themselves regarded as unreliable, the conduct of democracy would be hard to conceive. A rudimentary knowledge of social statistics reveals their imperfection, but to concede that there is need for improvement on the data of, let us say, criminal activity or illegal immigration is a far cry from arguing that statistical information is unimportant. On the contrary, it is a prerequisite of democratic debate and discussion.

Questions about the fallibility of statistics – it seems just about everyone is aware of Disraeli's quip that 'there are lies, damned lies, and statistics' – and, perhaps more serious still, suggestions that they may be subject to distortion due to interference by interested parties, help us to better appreciate their critical contribution to democratic life. During the era of Conservative ascendancy headed by Margaret Thatcher (1979–91), there were repeated complaints that data on unemployment rates were being manipulated. Definitions of what unemployment actually meant became questionable in the face of numerous changes decreed by government. (Was it those actively seeking work or did it require this plus eligibility for benefit? Need people be actively seeking work to be so classified? Was one to include youngsters who were obliged to attend a training course in return for benefit? Were those looking for a job but in receipt of sickness or invalidity benefit to be included?) Some years later, as Britain experienced heightened levels of immigration, there were further disagreements about the quality of statistical information, with allegations made about uncounted 'asylum seekers' and illegals entering the country in huge numbers. Again, quarrels about the trustworthiness of crime statistics are legion (Reiner, 1996).

Collecting robust statistics in these areas can be awesomely difficult – illegal immigrants by definition do not wish to be counted, government ministers do not want to see unemployment figures casting a shadow over their watch, and counting criminal acts is by no means straightforward (if you get your pullover pinched from your gym and report it to the police, it is an official crime; if you don't report it because it's scarcely worth the bother, it doesn't count). However, this sort of reasoning must not allow us to conclude that statistics do not matter. On the contrary, without rigorous efforts to collect and analyse such information, anything goes: the pub politician's anecdotes stand on equal terms to the findings of the serious researcher. Hence all manner of assertions about crime rates, about waves of illegal immigration, about there being next to no real unemployment, can be made if trust in statistical data is lost.

This has been a reason behind changes in Britain to the Office of National Statistics (ONS). It was once answerable to a government minister and located in a relevant department. But doubts raised about impartiality and political interference have contributed to a change in the ONS's standing. The ONS is now managed by the UK Statistics Authority, a fully independent body that is accountable to Parliament as a whole rather than to a ministry. This new authority has responsibilities to ensure the rectitude and reliability not just of statistics from the ONS, but of all official statistics. It also has a remit 'to promote and safeguard the quality of official statistics that serve the public good. It is also required to safeguard the comprehensiveness of official statistics, and ensure good practice in relation to

official statistics' (UK Statistics Authority, 2008). It is overseen by a Board of Directors composed of members with impeccable qualifications.

While statistics might be unglamorous and they can be contentious, and while their generation involves expense and high-level technical skills, it is important that we recognize that democracies are incalculably impoverished without their being available to the public. This is reason to applaud the launch, in 2010, of a web site in the UK, data.gov.uk, which makes available to members of the public, without charge, all information that is gathered by state-supported bodies other than that which is personal or sensitive. At the heart of this initiative is the commitment to provide access, to any citizen, to statistical data on how we live today, from the distribution of electronic appliances to performance of school children in their examinations. There will be lacunae between the open availability of this information and the ways in which it is mediated, but that this public interest information fortifies democracy can scarcely be doubted.

The need for a public sphere

If it is plain that government statistics are essential for a flourishing democracy, we still need to address criticisms regarding the inability of the market to deliver reliable information. There are several reasons why this should be so, but an important one is that it is not necessarily in the interests of commercial organizations to make available what they know to the wider public. As profit-making outfits their concern is to maximize returns to their investors and this can encourage private organizations to keep information to themselves. For instance, a study of the efficacy of antidepressant drugs revealed that these were no more useful than a placebo. Nevertheless, such drugs, known as SSRIs (selective serotonin reuptake inhibitors), which include brands such as Prozac, were dispensed in many millions of prescriptions for antidepressants. Yet Kirsch's (2009) work, relying on data from trials of the drug submitted to the licensing authority in the United States, showed that SSRIs had performed no better than dummy pills in the earliest trials in the 1980s (Boseley, 2008). Though this information had been gathered years before, it had never been examined because of the reluctance of the pharmaceutical corporations to hand over the full test results. It was in their interest to continue marketing drugs, though the evidence they themselves had gathered cast doubt on the efficacy of the therapy.

Such instances of deliberate secrecy may be relatively rare (there is no accurate way of knowing), though market practices necessarily encourage corporations to use information for their own ends. If information is proprietary it is likely that it will not be distributed to the widest public, but limited by copyright and patents to protect the interest of the owners. Indeed, changes in technology especially have meant that producers of information have been at once challenged when established mechanisms of ensuring a return on their product are threatened (one thinks of the ease of swapping files of music and movies on the internet) and at the same time galvanized to use new media as opportunities to seek greater returns on their 'intellectual property' (e.g. on digitalized stocks of

newspapers or on academic articles for which individual use can be charged when in electronic format).

Furthermore, as noted, the commercial imperative prioritizes maximum return to shareholders. As such, there are pressures to provide information to the public on the basis of willingness to pay and profitability to the producers. This usually means search for maximum sales and cheapest costs in terms of investment. A result is programming that has mass appeal, thus entertainment such as soaps, sports and celebrity gossip. A market system, critics contend, pushes to the margins information of particular value to the democratic system (either by alternative information being prohibitively expensive or by the provision of news and current affairs in small amounts and at the outreaches of the schedule).

Like Herbert Schiller, with whom it shares themes, this perspective refuses the idea of there being a novel 'Information Society' and emphasizes the continued salience of capitalism, though it acknowledges the heightened presence of information in the world today. A key reference in these accounts is Jürgen Habermas and his concept of the *public sphere*. We might examine this more since it helps us ponder whether more information does mean better (and maybe that it means worse) and leads us to questions concerning the sort of information required of a democratic society.

Habermas developed the concept in one of his earliest books, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (1962). His argument is that, chiefly in eighteenth- and nineteenth-century Britain, the spread of capitalism allowed the emergence of a public sphere that subsequently entered a decline in the mid- to late twentieth century. This is taken to be an arena, independent of government while also enjoying autonomy from sectional economic forces, which is dedicated to rational debate (i.e. to debate and discussion which is not 'interested', 'disguised' or 'manipulated') and which is both accessible to entry and open to inspection by the citizenry. It is here, in this public sphere, that public opinion is formed.

Information is at the core of this public sphere, the presumption being that within it actors make clear their positions in argument and that their views are also made available to the wider public so that it may have full access to the procedure. In perhaps its most elemental form, parliamentary debate and the publication of a verbatim record of proceedings express a central aspect of the public sphere, though the role of communications media may be seen to be as contributors to its effective functioning.

Readers will be able to conjure the ideal of the public sphere if they imagine open and honest Members of Parliament (MPs) arguing cases in the chamber of the House of Commons, ably supported by dedicated civil servants who dispassionately amass relevant information about the subjects to be debated, with everything open to public inspection through a conscientious publications and press infrastructure prepared to make available and to report assiduously what goes on so that, come elections, the politicians may be called to account (and, indeed, so that throughout terms of office public affairs may be transparent).

The idea of a public sphere has a powerful appeal both to democrats and to those influenced by Enlightenment thought. To the former the ideal of a public

sphere may be perceived as a *model* of the role of information in a democratic society: the appeal of reliable information being made available to all without conditions is obviously that of more open and accessible processes. The Enlightenment ideal of the pre-eminence of reasoned debate is also attractive. In the public sphere, it would seem, people may get access to the facts, may calmly consider and reflect upon them, and thereby *rationally* decide on the most appropriate course of action.

It might be useful to review Habermas's account of the history of the public sphere to understand more of its dynamics and direction. Habermas argues that the public sphere (more precisely, what he refers to as the 'bourgeois public sphere') emerged due to key features of the expanding capitalist society in eighteenth-century Britain. Crucially, capitalist entrepreneurs were becoming affluent enough to struggle for and achieve independence from church and state. Formerly the clergy and the court, where mannered display that celebrated feudal relations was the customary concern, had dominated public life. However, the growing wealth of capitalist achievers undermined this supremacy. This occurred as they gave increased support to the world of 'letters' – theatre, art, coffee houses, novels and criticism – thereby reducing dependence on patrons and stimulating the establishment of a space committed to critique which was separate from the traditional powers. As Habermas (1989 [1962]) observes, here 'conversation [turned] into criticism and *bons mots* into arguments' (p. 31).

From another direction came increased support for 'free speech' and parliamentary reform as a consequence of market growth. As capitalism extended and consolidated, so it gained greater independence from the state, and so too grew more calls for changes to the state, not least to widen representation so that policies could more effectively support the continuing expansion of the market economy. Those without, gaining strength and confidence, wanted to be within. This struggle for parliamentary reform was also a fight to increase the freedom of the press, since it was important to those who wished for reform that political life should be subject to greater public inspection. Significantly, *Hansard* was created in the mid-eighteenth century to provide an accurate record of proceedings in Parliament. Thereafter a verbatim record of what was discussed and decided in Parliament was produced as a public record of its deliberations.

Alongside the struggle to reform Parliament was a protracted struggle to establish newspapers independent of the state, one much hindered by government antipathy, but facilitated by relatively cheap production costs. Revealingly, the press of the eighteenth and nineteenth centuries, while having a wide spread of opinion, was noticeably committed to full coverage of parliamentary matters, a reminder of the confluence of press and parliamentary reform campaigns. Central to this mix of forces, of course, was the maturation of political opposition, something which stimulated the competition of argument and debate and which gelled with the pressure towards developing what Habermas terms 'rational-acceptable policies'.

The upshot of such developments was the formation of the 'bourgeois public sphere' by the mid-nineteenth century, with its characteristic features of open debate, critical scrutiny, full reportage, increased accessibility and independence

of actors from economic interest as well as from state control. Habermas emphasizes that the fight for independence from the state was an essential constituent of the 'bourgeois public sphere'. That is, early capitalism was impelled to resist the established state – hence the centrality of struggles for a free press, for political reform and for greater representation.

However, as the historical analysis proceeds, Habermas points to paradoxical features of the 'bourgeois public sphere' that led ultimately to what he calls its 'refeudalization'. The first centres on the continuing *aggrandizement of capitalism*. While Habermas notes that there had long been a 'mutual infiltration' (p. 141) of private property and the public sphere, his view is that a precarious balance was tilted towards the former during the closing decades of the nineteenth century. As capitalism grew in strength and influence, its enthusiasts moved from calls for reform of the established state towards a takeover of the state. In short, the *capitalist state* came into being: as such, its adherents turned their backs on an argumentative role and used the state – now dominated by capital – to further their own ends. The result of the expansion of MPs' private directorships, of business financing of political parties and think tanks, and of the systematic lobbying of Parliament and public opinion by organized interests has been a reduction in the autonomy of the public sphere. To be sure, there have been alternative players in this game – one thinks, for instance, of organizations such as the trade unions, and, most prominently, the Labour Party in Britain – but most have spoken the 'language of adaptation' (Miliband, 1969, p. 195) to capitalist relations and have thereby forfeited much of their oppositional role.

Habermas does not suggest that these trends represent a return to a previous epoch. His view is that, during the twentieth century especially, the spread of a public relations and lobbying culture was actually testament to the continuing salience of important elements of the public sphere, not least that it is acknowledgement of an area where political debate must be conducted to gain legitimacy. However, what public relations does, in entering public debate, is to disguise the interests it represents (cloaking them in appeals such as 'public welfare' and the 'national interest'), thus making contemporary debate a 'faked version' (Habermas, 1989 [1962], p. 195) of a genuine public sphere. It is in this sense that Habermas adopts the term 'refeudalization', signalling ways in which public affairs become occasions for 'displays' of the powers that be (in a manner analogous to the medieval court) rather than spheres of contestation between different policies and outlooks.

A second, related, expression of 'refeudalization' comes from changes within the system of mass communications. One needs to recollect that this is central to the effective operation of the public sphere since media allow scrutiny of, and thence widespread access to, public affairs. However, during the twentieth century the mass media developed into oligopolistic capitalist organizations and, as they did so, their key contribution as reliable disseminator of information about the public sphere was diminished. The media's function changes as they increasingly become arms of capitalist interest, shifting towards a role of public opinion former and away from that of information provider.

There are other dimensions of this transition, but the net result is that the public sphere appreciably declines as the press assumes advertising functions and increasingly expresses propagandistic positions even in its reportage. For a similar reason, that of increased commercialization and corporate expansion, the realm of 'letters' degenerates into something concerned chiefly with 'blockbusters' and 'best-selling' entertainments, the purpose of which is to encourage 'cultural consumption' rather than stimulation of critical debate. Whether in the publishing industry or, even more important, the television and newspaper business, a primary purpose today is the 'feudal' one of the celebration of capitalist styles of life, whether through adulatory displays of the 'stars', partisan and partial news coverage or subordination of content to the dictates of advertisers calling for maximum size of audiences.

While these two features are expressive of the spread and strengthening of capitalism's hold over social relationships, there is something else which, from its early days in the eighteenth and nineteenth centuries, has fought to use the state to bolster the public sphere. It has frequently swum against the current that has swept us towards a mature capitalist economy. One thinks here of groups which have made an important contribution to the creation and spread of a *public service ethos* in modern society. Habermas observes that from its early days the 'bourgeois public sphere' has provided space for people who occupy a position between the market and government, between, that is, the economy and the polity. I refer here particularly to professions such as academics, lawyers, doctors and civil servants. It is arguable that, as capitalism consolidated its hold in the wider society and over the state itself, so did significant elements of these (and other) professions agitate, with some success, for state support to ensure that the public sphere was not overly damaged by capital's domination.

Habermas (1989 [1962]) makes this point with broadcasting especially in mind, arguing that public broadcasting corporations were founded 'because otherwise their publicist function could not have been sufficiently protected from the encroachment of their capitalistic one' (p. 188). But the argument that such were the tendencies towards takeover by capitalist interests that state involvement was required to guarantee the informational infrastructure for a viable public sphere has been extended to explain the character of several key institutions like public libraries, museums and even higher education. Indeed, the *public service ethos*, conceived as an outlook that was committed to dispassionate and neutral presentation of information and knowledge to the widest possible public, irrespective of people's abilities to pay, can be regarded as consonant with an orientation essential to the effective functioning of the public sphere. Defenders of public service institutions might have over-egged their case by suggesting that they are synonymous with the public sphere (I return to this on pp. 213–25), but it behoves scholars to scrutinize these organizations' relations with the neo-liberal capitalism which is now supreme.

Reading Jürgen Habermas on the history of the public sphere, it becomes impossible to avoid the conclusion that its future is precarious. Even in its heyday the 'bourgeois public sphere' was an incomplete means of meeting the German philosopher's ideal of 'undistorted communication'. His account of its more

recent development is more gloomy still, an interpretation of trends which puts him inside the mainstream of pessimistic Frankfurt School theorists: capitalism is victorious, the autonomy of individuals is reduced, the capacity for critical thought is minimal, there is little space for a public sphere in an era of transnational media conglomerates and a pervasive culture of advertising. As far as information is concerned, communications corporations' overriding concern with the market means that their product is dedicated to the goal of generating maximum advertising revenue and supporting capitalist enterprise. There is a surfeit of information, but its quality is negligible. What it does is no more than subject its audiences 'to the soft compulsion of constant consumption training' (Habermas, 1989 [1962], p. 192).

Habermas goes further. In his view, while the public sphere is weakened by the invasion of the advertising ethic, so too is it wounded by the penetration of public relations. In this regard Habermas is especially sensitive to the career of Edward Bernays (1891–1995), the doyen of American 'opinion management', which he takes as indicative of the demise of the public sphere. What Bernays and his many descendants signal is an end to the rational debate characteristic of the public sphere, this subverted by the manipulative and disingenuous political operator. To Jürgen Habermas this intrusion of PR marks the abandonment of the 'criteria of rationality' which once shaped public argument, such criteria being 'completely lacking in a consensus created by sophisticated opinion-moulding' which reduces political life to 'showy pomp' before duped 'customers ready to follow' (p. 195).

Contemplating the present, Habermas can appear unrelentingly glum. Universal suffrage may have brought each of us into the political realm, but it has also brought the primacy of opinion over the quality of reasoned argument. Worse than this weighing of the vote without assessing the validity of the issues, the extension to everyone of the suffrage coincided with the emergence of 'modern propaganda' (Habermas 1989 [1962], p. 203), hence the ability to manage opinion in a 'manufactured public sphere' (p. 217). This is to identify the dark side of the Enlightenment. What does it matter if people have the vote but lack the wherewithal to evaluate what they are voting for? What does more information matter if it is in the service of deception?

The public sphere, public service institutions and informational change

The foregoing has paid particular attention to information in the rise and fall of the public sphere according to Habermas. In *Between Norms and Facts* (1997), he has offered a more sanguine view on the salience of the public sphere, not least in response to critics. Objections have been made to his historiography (Hohendahl, 1979), some doubting whether there ever really was a public sphere (Schudson, 1992). Elsewhere it has been noted that Habermas has nothing to say about either the exclusion of women (Landes, 1995) or the 'plebeian public sphere' (Keane, 1991) in recognition of the struggles of working-class groups to advance representation. In addition, Habermas appears insensitive to the charge

that he understates the self-serving interests of the army of professionals that maintains the public sphere (Calhoun, 1992). There are also questions to be asked about the status of rationality, to which Habermas accords special significance in the operation of the public sphere.

In spite of these qualifications, the idea of the public sphere offers an arresting vision of the role of information in a democracy (Curran, 1991). From the premise that public opinion is to be formed in an arena of open debate, it follows that the effectiveness of all this will be profoundly shaped by the quality, availability and communication of information. Bluntly, reliable and adequate information will facilitate sound discussion, while poor information, still less tainted information, almost inevitably results in prejudicial decisions and inept debate. For this reason several commentators, notably Nicholas Garnham (1990, 2000), have drawn on the notion of the public sphere as a way of thinking about changes in the informational realm, using Habermas's concept as a means of evaluating what sort of information there has been in the past, how it has been transformed and in what direction it may be moving.

Those who favour state subsidy of informational activities – what I have designated as the social democratic approach – articulate their defence in terms of a public service ideal that owes much to Habermas's notion of the public sphere. The argument is made that large private corporations have developed market practices in ways that thwart effective democratic engagement (in Habermas's terms the spread of corporate capitalism has 'refeudalized' the media). Against this, other institutions have emerged that rely on state subsidy for their continuation. At the heart of their defence is the view that for democracy to thrive there must be organizations such as those that exist to support the supply and flow of reliable information so that open discussion and debate may be conducted at the optimal level. This is crucial, attest supporters, so that democracy may prosper and discussion and decision-making may take place that are informed by reliable information and the deliberations of democracy be made available to the widest possible public. In this way, goes the argument, public opinion may be established in most conducive circumstances.

Those who support public service institutions such as the BBC and the ONS argue that they offer what the market cannot deliver as regards information. The range, depth and reliability of, for example, news and current affairs programmes on the BBC are superior to what one might expect from Rupert Murdoch's News Corporation (and, runs an important argument, the public service ethos of the BBC has exercised a positive influence on commercial rivals at home).⁷ Similarly, what the ONS offers in terms of statistical portraits of how we live today is thought inconceivable to have delivered by commercial organizations.

Moreover, it is essential for them not just to have autonomy from market pressures to provide this public service, but also to be at arm's length of government so that it may resist efforts at information management that are widespread in politics today. So these are not state – hence socialist – institutions at all (though commercial enthusiasts and those who have little experience of such organizations readily see them to be such). As we have seen above, a motive to insulate

the UK Statistics Authority from political interference – though it is reliant on public funding – was to separate it from a government department and provide it with the independence that comes with being answerable only to Parliament as a whole.

In Britain adherents of public service often claim affinity with public sphere conceptions. Indeed, it is not unusual to come across thinkers who use the terms synonymously. Thus James Curran and Jean Seaton (2003), in their history of British media, run the terms together, arguing that the 'state expanded the public sphere and empowered the public through the development of public service broadcasting' (p. 269). At the heart of public service is reluctance to admit market practices since they can jeopardize the mission of the organization, a commitment to impartiality and disinterestedness in terms of information that is generated and made available, a necessary autonomy from politics, albeit that income comes predominantly from the public purse, and a self-perception that those who find employment in such organizations are motivated by a vocational calling to serve the commonweal rather than pursue self-aggrandizement. This does echo some public sphere features. It is easy enough to find in statistical services, public television, museums and even in the education system adherence to these sorts of belief. Such public service institutions can find legitimacy in the claim that they provide an informational infrastructure without which democracy would be less healthy. Were one to look for a scale of ill health in democracies, here one is drawn to instance the United States. It is an unprecedentedly rich nation in terms of the technological sophistication of its informational infrastructure, yet many observers are struck by the thinness of its political debate, with little opportunity for well-informed public deliberation in what is an intensively commercialized media, high levels of non-participation in national elections and sound bite centred and highly orchestrated contests (Tracey, 1998).

Three connected matters are currently of particular concern. The first is writers concerned to argue that public service institutions such as the BBC and the library network are being degraded by attempts to transform them into more market-oriented and organized operations. The second is a general concern for negative effects of the commodification of information. In so far as information is to be treated as something tradable for profit, commentators foresee deleterious consequences for the public sphere, anticipating deterioration in the quality of political discourse and a decline in levels of participation (Boggs, 2000). The third area is the wider context of contemporary communications, where commentators suggest that, for a variety of reasons, there is an increasing amount of unreliable and distorted information being generated and conveyed. Here the focus is on new systems of communication which stress commercial principles and end up purveying escapist info-entertainment, on the spread of interested information such as sponsorship, advertising and public relations, and on an increase in the use of information management by political parties, business corporations and other interest groups, which inflates the role of propaganda in the contemporary information environment. Let us examine these scenarios in some more detail.

Public service institutions: radio and television

Public service broadcasting organizations are among the most important informational institutions in Britain, as indeed they are in many advanced nations. The BBC, for instance, is at the heart of a great deal of political, cultural and social communication and is capable of reaching every member of the society. Public service broadcasting may be taken to be a type institutionally set apart from outside pressures of political, business and even audience demands in its day-to-day functioning, one not pressed by the imperatives of commercial operation, and one made available to, and produced for the benefit of, the community at large rather than those who either can afford to pay for subscription or who can attract advertisers and sponsorship revenue. It is committed to providing high quality and as comprehensive as possible services to the public, which is regarded as composed of diverse minorities which are to be catered for without endangering the provision of programming – news, current affairs, drama, documentary – aimed at the whole audience. Its practitioners are dedicated to providing services without disguising their motives and with a goal of enlightening audiences on a wide range of affairs and issues, from politics to domestic conduct. Of course, this is an ideal type definition, though the BBC, while it has interpreted public service with particular emphases over the years, has approximated to it. Several of these public service broadcasting characteristics echo Jürgen Habermas's depiction of the public sphere (though I contend on pp. 235–45 that public service institutions ought not to be regarded as coterminous with the public sphere) – notably, perhaps, the organizational location independent of both government and the market, the ethos of public servants, which stresses undistorted communication, and the service's availability to all regardless of income or wealth.

Established in the opening decades of the twentieth century, the BBC was consciously designed to operate at a distance from commerce. This came about because of a peculiar unity of radicals and conservatives that allowed ready acceptance that the BBC be formed as a state institution aloof from the interests of private capital. Observers had witnessed the hucksterism and cacophony created by commitment, in the United States, to a free market in broadcasting, and their repugnance led in Britain to an odd domestic alliance: as historian A. J. P. Taylor (1965) noted, 'Conservatives liked authority; Labour disliked private enterprise' (p. 233), and this combination led to a willingness to endorse the view that 'the broadcasting service should be conducted by a public corporation acting as Trustee for the national interest, and that its status and duties should correspond with those of a public service' (Smith, 1974, p. 53).

In this way the BBC was 'born in Britain as an instrument of parliament, as a kind of embassy of the national culture within the nation' (Smith, 1974, p. 54), granted a monopoly over broadcasting and funded from an involuntary tax on wireless – later television – receivers (the licence fee). The formation of the BBC by Parliament and its aloofness from commerce had important consequences. It allowed for an emphasis, explicitly called for by the legislators, on broadcasting as a means of education as well as entertainment. Over the years this ethos – 'to

inform, educate and entertain' – has been consolidated and expressed in much BBC output from news through to general programmes.

This cannot be translated into Habermas's terms of a public sphere dedicated to the furtherance of 'rational debate', but it has extended public awareness of issues and events beyond most people's personal experiences (and to this extent, whether reporting from overseas or depicting aspects of life in Britain long hidden from general view, it has performed a democratizing function). Paddy Scannell and David Cardiff (1991) argue that this extension of audiences' horizons involved a spread of 'reasonableness' in the sense that people were able, and called upon, to give reasons for what they did, how they lived and what they believed.⁸

The BBC, being a parliamentary creation, has been profoundly affected in its practices and assumptions by the parliamentary model. This has found expression in a presentation of political affairs that, on the whole, has limited itself to the boundaries of established party politics, but at the least it aided the treatment of politics in a serious and considered manner. That is, public service broadcasting in Britain has always emphasized its role as an *informer* on public affairs. To this end it has characteristically dedicated a great deal of time in the schedules to such coverage, in the face of the appeal of presenting either cheaper or more popular programming. Around 25 per cent of BBC television programme output is given over to news and current affairs, more than double that awarded by commercial rivals in Britain and still more impressive when compared to American network television. Moreover, differences within and between political parties have provided considerable space within which the BBC's informational services could function, making them considerably more than mouthpieces of official party lines and able to offer much analysis and extensive political debate (Smith, 1979, pp. 1–40).

The decisive influence of its founding Director General Lord Reith, credibility achieved for its reportage during the Second World War and its uncontested monopoly for some thirty years were important factors in rooting the public service ethos in Britain (Briggs, 1985). There was the important additional factor that the BBC, notwithstanding attempts by governments to interfere, has remained genuinely distanced from political dictates, being state linked, in contrast to state-directed systems where broadcasting has commonly been seen as an instrument of government policy. This has been essential to the sustaining among broadcasters of a commitment to political impartiality and to reporting as accurately and objectively as is possible.

Krishan Kumar (1977) has described the BBC's autonomy from commercial and political controls as 'holding the middle ground', a position which has contributed to the 'quite unusual cultural importance that attaches to the BBC in Britain' (p. 234) and that has attracted and been bolstered by the entry into broadcasting of many talented people instilled with a public service outlook and sceptical of the 'moving wallpaper' mode predominant in out-and-out commercial broadcasting systems (most notably the United States). 'State and commerce: around one or other of these poles are gathered the vast majority of the broadcasting systems of the world', but the 'BBC has, in certain important ways, been able to resist these

two forms of identification' (Kumar, 1977, p. 234) and has managed to achieve a distinctive *raison d'être*, institutional flavour and pattern of behaviour (Burns, 1977).

In addition, the public service ethos of the BBC has had a marked influence on commercial broadcasting in Britain. Thus independent television, launched in the mid-1950s following an intensive lobby, has from its outset had public service clauses injected into many of its activities. As James Curran and Jean Seaton (1988) observe, it 'was carefully modelled on the BBC [and the] traditions of public service were inherited by the new authority' (p. 179). This is reflected in its Charter demanding that it strives for impartiality in coverage, in the structure of its news services, which are formally independent of the rest of its commercial activities, clauses in its contracts such as the requirement to show at least two thirty-minute current affairs programmes per week in peak time, and the financing of Channel 4, which puts it at arm's length from advertisers in order to protect its mission of reaching different audiences from previously established channels. American historian Burton Paulu (1981) aptly recounts that from its inception it was 'the duty of the [Independent Broadcasting] Authority "to provide . . . television and local sound broadcasting services as a public service for disseminating information, education and entertainment"' (p. 66).

If broadcasting's public service roles set it apart from commercial imperatives, it is important to say that this does not mean it has been aloof from outside pressures, able to operate, as it were, in the capacity of dispassionate and free-floating information provider. It could not do so since it is part of a society in which commerce is a powerful force, at the same time as the BBC (and to a considerable degree Independent Television too) was an institution created by the state and therefore susceptible to pressures that could be brought to bear by and on the state. Further, the recruitment of BBC personnel especially has come predominantly from a limited social type (Oxbridge arts graduates), something that has advanced values and orientations that are scarcely representative of the diverse British public. Inevitably, such pressures and constituents as these and the priorities they endeavour to establish have influenced broadcasting's evolution.

However, this is not to say that broadcasting is some sort of conduit for the powerful (the 'ruling class' for the Left, the quasi-aristocratic 'Establishment' for the Right). It has a distinctive autonomy from business and politics that has been constructed over the years, even though features of this independence have changed. In its early days under Reith the BBC was separate from government officials and disdainful of the business world, but it was an autocratically run organization with an elitist orientation. Public service then was taken to mean the transmission of programmes that were considered worthy by custodians of what is now regarded as a rather outdated philosophy – in essence, Matthew Arnold's credo of 'the best that is known and thought in the world'.⁹ In the 1960s circumstances were such as to allow public service to be interpreted at times in a radical and irreverent manner, while institutional independence was maintained. Under the directorship of Sir Hugh Greene (Tracey, 1983), at a time when the economy was booming, when television ownership was increasing and ensuring the BBC an annual rise in revenue from additional licence fees, when the political climate was

relatively tolerant and relaxed, public service was liable to be perceived as including challenging, innovative programming that could awaken audiences to new and often disconcerting experiences.

Over time it is possible to trace changes in conceptions of public service broadcasting (Briggs, 1985), with an ethos of professionalism (public service broadcasting being seen as a matter of producing intelligent, well-made, unbiased, interesting and challenging programmes) coming to displace earlier emphases on paternal responsibility in the Reithian mode (Madge, 1989). While professional ethics are important to contemporary programme makers, they do not readily provide them with a public philosophy of broadcasting with which to respond to attacks. Furthermore, with hindsight we can see that public service broadcasting depended, in part at least, on the presumption of a unified – or potentially united – audience. For good or ill, since the late 1960s the divisions among audiences have become evident and have made it difficult to speak without heavy qualification of a ‘general public’, giving rise to hesitancy and indecision in broadcasting (just who is public service broadcasting addressing, and who is it not?) and leaving it more vulnerable to assault from critics.

Changes have been more profound since the 1980s. For instance, Michael Jackson (2001), a former Controller General of BBC2 and outgoing Head of Channel 4, went so far as to argue that the postmodern times in which we now live mean that public service television is a ‘redundant piece of voodoo . . . drained of all purpose and meaning’. This is so because audiences are now much less passive, more ironic and interactive in today’s ‘versatile culture’. Above all, Jackson continued, the diversity of postmodern culture means that minority programmes are now the mainstream, thereby shattering the premise of public service broadcasting that there is a type of television content all viewers ought to have.

Britain (and elsewhere where versions of the public service ethos are found) has been experiencing what has been called, somewhat dramatically, a ‘crisis of public service broadcasting’. It is a crisis that many perceive to be resulting in a diminution of broadcasting’s public service functions. There have been two major fronts on which this crisis has been fought, the political and the economic. On one side there have been attacks on broadcasters from those who regard them as a part of a ‘new class’ of privileged and state-supported elites who are both ‘leftists’ and disposed towards ‘nannying’ the wider public (i.e. berating audiences in superior tones with anti-market ideologies), and yet ‘accountable’ neither to government nor to private capital, nor even to the audiences whose licence fees keep the BBC going. On another side has emerged an economic critique that contends that the BBC is profligate with public funds, and takes money without offering accountability to those taxpayers who provide it. This critique urges a new sovereignty to the ‘consumer’, who ought to be ‘free to choose’ what programming is to be provided.

These sides have combined in an assault that has led at times to reductions in budgets, many outside interventions complaining about bias and further introduction of commercial practices. Behind all this is the enthusiasm for the market that has been so much a feature of recent times. The weakening of public service broadcasting, therefore, is most often cast in terms of enthusiasm for ‘competition’

and 'choice' (liberalization and deregulation) and 'privatization' (ending state support in favour of private shareholding).

From another direction comes erosion of public service broadcasting institutions by new means of delivery, notably from satellite and cable television services, especially in the guise of Rupert Murdoch's Sky television service and its main diet of 'entertainment' (sport, movies and family programmes) leavened by Sky News. Should audience share of public service channels continue to fall, support from involuntary taxation and claims to address the 'general public' become untenable. How can the involuntary tax that is payable by each television owner to fund the BBC be supported when its channels are watched only by a minority?

If one seeks to discern the direction in which broadcasting is moving, one must look to the United States because it is, in key respects, a guide to government information policies around the world. In such a milieu, where the ratings largely determine media content, public service broadcasting must be hard pressed to survive. Michael Tracey (1998) goes so far as to describe the 1980s as 'the Passchendaele of public broadcasters' (p. 192) as they were swept aside by neo-liberal policies. Results are evident enough: television is dominated more than ever by soaps, action adventure, chat shows, magazine news and quiz competitions. This is accompanied by a squeeze on news and current affairs (itself pressured towards 'sound bites' and sensationalism), and by burgeoning cable television services offering infotainment.

The prospect is of more support for broadcasting coming from private funds, whether advertising, sponsorship or subscriptions, and less from the public purse. With this transfer comes a promotion of commercial criteria in programming, with the upshot that audience size and/or spending power (with occasional prestige projects backed by sponsors in search of reflected status) are the primary concerns. Content is unavoidably influenced by these emphases, with most often an increase in entertainment-centred shows as opposed to 'serious' and/or 'minority' concerns such as news and current affairs (though these are likely to be made more 'entertaining') and intellectually challenging drama.

What we are witnessing is an undermining of public service broadcasting. While the prospect is of more emulation of US television's 'cultural wasteland', it is possible that some high quality programming will be available via perhaps new forms of delivery or even by subscription. Defenders of change seize on innovative programmes such as *The Sopranos*, *Mad Men* and *Homeland* to insist that commerce can and does deliver high quality content. To which the reply must be in the affirmative, with the vital proviso that such programmes are the exceptions that prove the rule that market-driven television tends towards the superficial and slight. However, it is also the case that either these will be niche markets – tiny aspects of an informational environment dedicated to escapist adventure series, sport and films which may, ironically, fail to *inform* effectively (Schudson, 1991) – or they will be restricted to those groups with the wherewithal to afford requisite subscription fees, something which undermines the principle of information being available to everyone irrespective of ability to pay.

Because those who pay the piper generally call the tune, publicly funded organizations can easily be regarded as tools of government. It is this presumption which usually leads critics to be sceptical of public service defenders. The idea that broadcasting can be funded by the state while independent of the state appears incredible to many, especially to those alert to political interference in broadcasting. The same objectors are then easily drawn towards support for privately financed media, since, it is argued, it is government which must be most assiduously examined by a vigilant media in the current period and it is to independent news organizations that we need to look to undertake this task.

In these circumstances the crucial issue is whether the quality of information provided by broadcasting is declining and whether it is likely to continue to do so. For market enthusiasts 'narrowcasting' promises much more and much more accurately targeted information going to variegated and pluralistic customers. For others, while there is no doubt that a much greater quantity of information is generated on television and radio stations (cable, satellite, round-the-clock programming, many more channels), it has not – and it will not – lead to greater quality of information or to genuine choices for listeners and viewers. This is because the market generates trivia, or concentrates power in the hands of media moguls, or segments audiences by bank account such that quality information is limited to the better-off sections of society.

It is clear that the BBC will not disappear, at least not in the foreseeable future. Its esteem in British history is too formidable for that. However, what we are likely to witness is continued pressures towards marketization from without and internal pressures from within to move with new times. Together these promise to have marked effects on television output and conceptions of public service.

Public service institutions: public libraries

Some argue that the public library network is an expression of the public sphere (Buschman, 2003, 2012). In Britain there are public libraries reaching into most sizeable habitations. The network has several distinguishing features. First, information is made available to everyone, access being guaranteed without cost to individuals. Membership is free to all who live, work or study in the local area, and public libraries provide free books for loan, access to reference materials, and must have reasonable opening hours which facilitate access. Second, the service is publicly funded from taxation gathered centrally and locally, but its operation is independent of political interest, being instructed, under the Public Libraries and Museums Act 1964, 'to provide a comprehensive and efficient library service for all persons desiring to make use' of it. Should one's local library not hold the information for which one is searching, the national system of inter-library loan, supported by the existence of designated copyright libraries and the British Library at Boston Spa, may satisfy one's requirements.¹⁰ Third, professional librarians, who provide assistance and advice to users as a public service, without prejudice against persons and without hidden motives, staff the library network. This is evident in the British Library Association's (LA) *Code of Professional Conduct*

(1983, para. 2e), which proclaims that its 'members have an obligation to facilitate the flow of information and ideas and to protect and promote the rights of every individual to have free and equal access to sources of information without discrimination'. Such professional ideals are iterated by the LA's successor, the Chartered Institute of Library and Information Professionals (CILIP [www.cilip.org.uk/]).

In excess of half the British population are registered borrowers of their local library, one-third of them regularly borrow from it, taking away ten books per year per member, and together they make well over 300 million visits to libraries (ten times the total attendances at professional football games). Ordinary citizens, from children to pensioners, may visit their library confident of receiving a public service, whether they are seeking reference material on a school project, advice on planning applications, or simply to read a novel. It is no exaggeration to say that the public library network is the jewel in the crown of the United Kingdom's information infrastructure for the majority of citizens.

There have been several factors that have contributed to the growth of public libraries from their inception in the mid-nineteenth century. These have ranged from upper-class philanthropy, paternalist sympathies, fear of the untutored masses, desire to increase literacy rates, to a wish to open up educational opportunities by providing learning resources to the disadvantaged (Allred, 1972). Whatever divided these motives and aspirations, what lay behind them all was an important, if usually unstated, conception of information. That is, public libraries were formed and developed on the basis of a notion that information was a resource which belonged to everyone rather than being a commodity which might be proprietary. It followed that, since information and indeed knowledge could not be exclusively owned, it should be available freely to those who wished to gain access to it, a conception which appears to have been at the core of the establishment and operation of the public library system in Britain. It is fundamental to the public library network that if people want information, then – subject to legal constraints – they ought to have help in getting it and not be penalized in that search (Usherwood, 2007; Kranich, 2004). However, the public library system has come under challenge on both philosophical and practical grounds. There have been serious attacks made on the premise that information ought to be free to users of the library and policies have been put in place that have pressured libraries increasingly to charge for their services.

What can only be regarded as an assault on their *raison d'être* has been mounted from three main quarters. First, there has been the matter of sustained reductions in funds from the public purse, with the result of fewer book purchases, fewer staff available, fewer current periodicals and frequently no daily newspapers, declining opening hours in many places, as well as more dowdy and unkempt surroundings (West, 1992). This has accelerated since the onset of the 2008 recession, with some local authorities proposing to cut all expenditure on libraries and others proposing to run them with volunteer staff. A corollary has been a shift towards commercialization of services in an attempt to recoup diminished resources. Thus orders for specified books, inter-library loans and some reference services now command a fee, while the fine system for overdue books is increasingly

calibrated as a mechanism for generating funds rather than to encourage prompt return of materials. Not surprisingly, over the last twenty years there have been declines in library book loans.

Second, there has been an attack from the political Right that regards public librarians as being unaccountable to anyone other than themselves, something which lets them foist their values on library users since they determine what stock to purchase, and, moreover, allows them to allocate much of the library budget to their own salaries. In addition, the Adam Smith Institute (1986) believes that nowadays people are well able to satisfy their information needs by paying for them directly, as witness the 'paperback revolution' that has brought cheap books to everyone and the success of movie rental chains that customers seem happy to use. Such yearning for subscription-based services and strident advocacy of the market – articulated as the voice of the 'real world' as well as responsiveness to ordinary people – has demoralized many in the library system.

Third comes the accusation that public libraries have failed to move with the times, that they are outdated custodians fixated on books rather than the modern forms of electronic information delivery. This is a critique which most comes readily from post-Thatcherite sources, from groups whose emphasis may be more on the cultural inadequacies of the old-fashioned, inflexible and fuddy-duddy library system than on economic stringencies and market opportunities. The complaint here is motivated by a conviction that new technology-based information, multi-media delivery and, above all, the internet are the only future for public libraries, and that adjustment to these bounties requires, before anything else, a change in mind-set from those working in the library service (Greenhalgh and Worpole, 1995). The message here is that libraries must invest in new technology, brighten up paintwork and throw out books that are little used. Librarians, with undue reverence for archives and 'library silence', have for far too long acted as custodians. They must go and the library 'modernize'.

This tone permeates *New Library: The People's Network*, a document that announced a post-Thatcherite approach to the library service (Library and Information Commission, 1997). It continues in 'new times' guru Charles Leadbeater's (2003) advice on 'how to create a modern public library service'. Seeing 'virtual libraries' just round the corner, Leadbeater accused librarians of being 'in a state of denial' of such proportions that decline seems terminal. Visits are falling, as are loans, yet book sales have soared on the high street. Against the likes of Waterstones, with their cappuccino cafés, enticing three-for-two deals and sumptuous leather sofas, public libraries appear tawdry and boring, refuges for the elderly and socially incompetent, and employers of unadventurous losers. Libraries stand accused of being short of 'management talent', of having few 'inspirational goals' and lacking in 'capacity to deliver'. Accordingly, Leadbeater demands that public libraries act now to put 'their house in order' and stop blaming their failures on shortages of funds. Modernize and stop whinging is the message – or else face extinction. This advice came *before* Amazon took off. Its cheap and ultra-efficient service that delivers books and much else direct to customers' homes plunges another knife into the heart of libraries.

Underpinning pressures towards marketization was a sharp critique of public libraries, one which comes from the Right of the political spectrum, but which often draws on criticisms once made by the Left. Perhaps most prominently, the free library service is said to benefit disproportionately those well able to buy books for themselves. For instance, while a majority of the public are library members, estimates are that half of those are accounted for by the 20 per cent of the population labelled middle class. User surveys do indicate that active library users are predominantly middle class and that libraries located in affluent areas get most public provision (since library issues have often formed the basis for resource allocation).

Furthermore, libraries are accused not only of serving the better off, but also of being elitist, promoting what might be loosely described as middle-class mores which undervalue the cultures of, say, working-class or regional sectors (Dawes, 1978). This prejudice is evident not only in the routine selection of literature which is almost by default 'middle class', but also in occasions of censorship of materials by librarians. In this regard one may point to some libraries removing Enid Blyton's *Noddy* stories because these are racist and sexist.

Moreover, the argument is made that behind the rhetoric of public service lies the unpalatable fact that librarians look after themselves rather well, spending three times as much on salaries as on books. Ostensible friends of public libraries voice this complaint, as with Will Hutton's (2004) call for 'substantial redundancy and redeployment among existing staff'. How much better, goes the reasoning, if such a self-serving and elitist profession were made answerable to customers, who, in paying for their information, will value it the more and make answerable those employed to serve it up?

Other complaints charge that, since most users borrow light fiction and biographies from libraries (these account for around 60 per cent of all loans), there is no reason why these leisure pursuits should be subsidized from general taxation, especially since the 'paperback revolution' has made the sort of books that are most heavily borrowed cheaply available. With the library system predominantly meeting what are arguably the entertainment needs of users, 'Agatha Christie on the rates' is scarcely defensible. Reminding ourselves that the top five borrowed adult authors in 2010 were James Patterson (in three places), Dan Brown and Lee Child, we may muse on the words of the Adam Smith Institute (1986): 'While the ambitious librarian may like to look on him or herself as part of a vital information industry, the bulk of library customers use the service as a publicly funded provider of free romantic fiction' (p. 21). If this is the case, is the library service any different in principle from cinema or professional football?

Another concern is public libraries' provision of reference works, probably that which is closest to public service ideals. The image is one of the library as a grand repository of 'knowledge', access to which is facilitated by the expert librarian (increasingly termed 'information scientist'), and of the 'urge to know' of the concerned citizen, the zealous schoolchild, the autodidact, the self-improver or simply the curious layperson. But against this appealing picture we must set the fact that not only are library reference services used by the better off, but also reference materials account for only 12–15 per cent of library stock and for only

5 per cent of annual book purchases. Since most users have enough money to pay their way, and since reference services are a small part of the library's stock, it is perhaps reasonable for free marketers to propose a daily admission charge, with 'season ticket facilities' for longer-term users.

What has become evident is that, impelled by additional public demands, by reductions in resources, by technological innovations and an unprecedented critique of the philosophy underpinning public libraries, a changed conception of information and access to information has emerged. Where once information was perceived as a public resource that ought to be shared and free, now it is regarded as a commodity that is tradable, something that can be bought and sold for private consumption, with access dependent on payment. The 'fee or free?' debate is being resolved in favour of those who favour charging. A portent of changes consequent on the market-alert ethos is the introduction by entrepreneurial librarians of 'premium' services, generally for commercial users who seek information pertinent to their businesses. As these are pioneered there is also introduced a two-tier library system which sits uncomfortably with the public service ideal of information access to all regardless of individual circumstances.

It is often alleged nowadays that libraries are an anachronism. If people want books they can buy them cheaply enough on Amazon; if they want to consult an encyclopaedia Wikipedia is at hand; downloaded e-books are replacing hard copies . . . It is easy enough to find ageing intellectuals reminiscing about how the local library helped them make their way out of the constricting circumstances of their youth, but as public libraries continue to be closed one can foresee the end of these places.

Public libraries in Britain are in decline, with fewer books being borrowed while purchases of books by individuals are being sustained. It is this sort of evidence that persuades one that the public library network is breaking down. Fundamental principles, most importantly free access and a comprehensive service, are under challenge, threatened by a new definition of information as something to be made available on market terms and preferably online. As this conception increases its influence, so may we expect to see the further decline of the public service ethos operating in libraries (users will increasingly be regarded as customers who are to pay their way) and, with this, its functions of provision of the full range of informational needs without individual cost.

The demise of public service institutions?

There is widespread agreement that public service institutions have been under siege over the last generation or so and with this there has been an accompanying assault on their distinctive contributions to information and democracy. There is a range of reasons for this, including:

- 1 The widespread dislike of taxation that readily increases pressure for reductions in public expenditure. Public service institutions are dependent on state funds, hence on tax revenues, and they are thereby in the front line when policies of reduced public expenditure are proposed.

- 2 This combines with suspicion of the non-commercial. The retreat of collectivism since the early 1980s and the advances of market practices pose challenges to organizations that can appear as quasi-socialist institutions in so far as their income comes from the state.
- 3 A related attack on public service advances the view that they are aloof from the 'real world' in that they were cushioned from market disciplines, thereby unhealthily complacent.
- 4 Consonant with this immunity from the market is the accusation that public service institutions are self-serving and elitist. They have a vested interest in increasing their revenue (and hence pushing for increased public taxation) since this has led to their own expansion and aggrandizement, and they are also elitist in that they are not answerable to customers because they are protected from market pressures. This has meant that employees of public service institutions are not giving customers what they want, but instead presume to offer what they determine their 'clients' need. Such a 'nanny' attitude is said by critics to be widespread in public service institutions.
- 5 Many of the pressures upon public service institutions have come not from audiences, but from politicians who set the budgets. Critics of public service criticize this political interference while deploring the lack of answerability of public service institutions to their users. Their proposed resolution has been to free such organizations from political control while compelling a closer relationship with customers as a counter to elitist tendencies. In the name of improved service that would provide customers with what they wanted rather than what the public servants thought they should have, it is argued that such institutions ought to be freed from government control and loosened to roam the market.
- 6 Reductions in financial support to public service organizations have also stimulated them to turn to the market to make up the shortfalls, thereby contributing to their longer-term demise. The more that public service organizations have turned to sponsorship, or to charging for their services, or to mounting exhibitions chiefly because they would be popular with audiences, the more they have risked jeopardizing their founding principles.
- 7 Further, profit-seeking companies have found the pro-market ethos conducive to their own entry into the activities of public service groups. Thus Sky Television or Amazon can claim to provide all that public service institutions offer (and frequently more), hence making the BBC and public libraries redundant. The more successful they are, the less need there is for groups funded from the Exchequer. Circumstances vary depending on the nation involved, but in the United States analysts such as Carl Boggs (2000) have lamented what he regards as the virtual elimination of public spaces through a 'corporate colonization' (p. 7) of life as private corporations have entered and come to dominate almost all domains that offer the prospect of profit, from shopping malls that exclude non-commissioned activities to for-profit higher education institutions that sell degree qualifications.
- 8 Finally, ongoing technological innovation has posed enormous challenges – as well as presenting some opportunities – to many established organizations,

including those conceived in terms of public service. As regards their *raison d'être*, the development of cable and satellite television, and especially the internet, has led to a profusion of alternative communication platforms. One of the major consequences has been the fragmentation, hence diminution, of audience. No longer being able to command the mass audiences of yesterday has inevitably led to questioning of services paid out of public funds and delivered to the entire nation. The days of mass broadcasting to an undifferentiated audience can never be returned to in an era of YouTube, Sky and iTunes. This presents serious challenges to public service institutions, whose justification for being has been supply of national service to all citizens.

These factors are at one with the advance of neo-liberalism across the world since the 1980s, with which has emerged a globalized world market system, technological innovation, and the penetration of commercial principles and practices into hitherto relatively untouched realms. Combined, they have exercised an enormous influence on the information-contributing characteristics of public service institutions. There has been a discernible turning away from provision of information on non-market terms from organizations once impervious (and frequently hostile) to the imperatives of the market. There has developed a marked concern among these to demonstrate their popularity by commanding the largest possible audiences, by heightened sensitivity as regards their competitive edge *vis-à-vis* private suppliers, and to generate funds by introducing commercial or quasi-commercial practices wherever possible.

Information management

When we look at shifts in information availability it is also useful to consider the emergence of the 'spin doctor', the 'media consultant' and associated practices in contemporary political affairs. This conjures the explosive growth in the means of 'persuading' people, much in evidence in politics, but also extending deep into the arena of consumption. A striking feature of the twentieth century, and especially of the post-war world, was the spread of the means, and of the consciousness of purpose, of persuading people. What is often called 'information management' is an integral feature of capitalist societies. As Howard Tumber observes:

Information management . . . is fundamental to the administrative coherence of modern government. The reliance on communications and information has become paramount for governments in their attempts to manipulate public opinion and to maintain social control.

(Tumber, 1993b, p. 37)

It put down roots in the opening decades of the century when, as recognized by a spate of thinkers – prominent among whom were political scientists Harold Lasswell and Walter Lippmann and, most importantly, the founder of modern public relations Edward Bernays – the growth of democracy, in combination with

decisive shifts towards a consumption-centred society, placed a premium on the 'engineering of consent' (Bernays, 1952).

There is an extensive literature on the growth of 'propaganda', later softened into 'public opinion' and later still into 'persuasion', which need not be reviewed here (Robins and Webster, 1999). Suffice to say that it became evident early in the twentieth century that mechanisms of control were necessary to co-ordinate diverse and enfranchised populations. In Lippmann's view this meant 'a need for imposing some form of expertness between the private citizen and the vast environment in which he is entangled' (Lippmann, 1922, p. 378). This expertise would be the province of the modern-day propagandist, the information specialist in whose hands 'persuasion [becomes] a self-conscious art and a regular organ of popular government' (p. 248). Note here that in the eyes of Lasswell, Lippmann and Bernays, information management is a necessary and a positive force: 'Propaganda is surely here to stay; the modern world is peculiarly dependent upon it for the co-ordination of atomised components in times of crisis and for the conduct of large scale "normal" operations' (Lasswell, 1934, p. 234).

Propaganda here is presented as systematic and self-conscious information management and as a requisite of democracy. It involves both dissemination of particular messages and also the restriction of information, an activity including censorship. What is especially noteworthy about this, and why I have sketched this historical context, is that Jürgen Habermas regards the growth of 'information management' as signalling the decline of the public sphere (though the fact that the democratic process remains testifies to the need for interests to gain legitimacy for their actions on an open stage, something which helps sustain the public sphere [cf. Gouldner, 1976, p. 164]). Habermas is correct in so far as the promotion of propaganda, persuasion and public opinion management does evidence a shift away from the idea of an informed and reasoning public towards an acceptance of the massage and manipulation of public opinion by the technicians of public relations. Propaganda and persuasion are nowadays usually regarded as inimical to rational debate and are seen as forces that obstruct public reasoning. And yet earlier commentators were quite open about their conviction that society 'cannot act intelligently' without its 'specialists on truth', 'specialists on clarity' and 'specialists on interest' (Lasswell, 1941, p. 63). As Edward Bernays (1952) proclaimed, 'Public relations is vitally important . . . because the adjustment of individuals, groups, and institutions to life is necessary for the well-being of all' (p. 3).

What is striking about the present is that information management has become vastly more extensive, more intensive and more sophisticated, while simultaneously there is reluctance to admit of its existence. Nowadays a plethora of PR specialists, of advisers who guide politicians and business leaders through their relations with the media, and of degree courses in advertising and allied programmes, all profess instead to be concerned only with 'improving communications', 'making sure that clients get their message across' and 'teaching skills in activities essential to any advanced economy'. The underlying premise of all such practices is routinely ignored or at least understated: that they are dedicated to producing information to persuade audiences of a course of action which

promotes the interests they are paid to serve – i.e. to control people's information environments the better to exercise control over their actions.

While information management took on its major features in the period between the two world wars, in recent decades its growth and spread have accelerated. Consider, for example, the enormous expansion and extension of the advertising industry since 1945. Not only has advertising grown massively in economic worth, but also it has extended its reach to include a host of new activities, from corporate imagery, sponsorship and public relations to direct mail promotion. Consonant has been a marked increase in 'junk mail' (a strong signal as to the quality of much additional information) and free local 'newspapers' which frequently blur the divide between advertising and reportage. Alongside such growth has come about a new professionalism among practitioners and a notable increase in the precision of their 'campaigns' (from careful market research and computerized analyses to specified audiences). The aggregation and analysis of internet searches and orders demonstrate an advance in the capacity of marketers to better identify and target potential customers.

Further evidence of the trend towards managing opinion, and something which reaches deep into the political realm, is the rise of lobbying concerns that penetrate government to extend the influence of their paymasters. I do not refer here to the press lobby, which gets its name from the place where journalists stand to catch MPs leaving the Commons chamber, but rather to those groups – usually corporate – whose aim is to influence the political process itself. A key element of this strategy is the hiring of parliamentarians and employment of people and organizations to influence them..

I shall return to political affairs, but here I want to draw attention to the contribution of business interests to the information environment. Two features are of particular note. The first parallels the recognition by political scientists of the need to manage the democratic process by careful information handling. In the burgeoning corporate sector, during the same inter-war period, there came about recognition that public opinion could and would increasingly impinge upon business affairs. In the United States especially, '[a]s firms grew larger, they came to realise the importance of controlling the news which they could not avoid generating' (Tedlow, 1979, p. 15). The upshot was the establishment of publicity departments briefed to ensure that corporate perspectives on labour relations, economic affairs and even international politics were heard. And we cannot be surprised to find that Edward Bernays identified and encouraged the corporate world's recognition 'that in addition to selling its products . . . it needed also and above all to sell itself to the public, to explain its contributions to the entire economic system' (Bernays, 1952, p. 101).

From acknowledgment that any business organization 'depends ultimately on public approval and is therefore faced with the problem of engineering the public's *consent* to a program or goal' (Bernays, 1952, p. 159) follows a panoply of corporate communications. In the modern business corporation the management of public opinion is an integral element of the overall marketing strategy. To this end the likes of Roger B. Smith (1989), General Motors' chief executive, are clear about the function of their public relations staff: their instructions are nothing less

than 'to see that public perceptions reflect corporate policies' (p. 19). These are principles that underlie corporate involvement in myriad informational activities: sponsorship, logo design, corporate image projection, advertorials, public relations, courting of political (and other) interests, even involvement with educational programmes (an area where corporations reach young people and may be associated with concerned and caring activities). The foundational concerns of the corporate sector are also manifest in joint enterprises, in Britain most prominently in the Confederation of British Industry (CBI), founded in 1965, and now routinely regarded as the authoritative voice of the business community, with acknowledged representation at any public forum to do with the state of 'industry'.

An associated phenomenon is the practice of training leading corporate personnel in how best to work with and appear on the media. Speaker training, advice on appropriate dress codes for television appearances and practice interviews using internal (or consultant-based) video facilities, frequently with professional media personnel hired as trainers, are routine in the larger businesses.

Furthermore, Michael Useem (1984) documented how corporate structures have resulted in a greater premium being put on what might be called the informational capabilities of corporations and their leading executives. Useem demonstrates that there has been a shift this century from 'family', through 'managerial', to 'institutional' capitalism, by which he means not only that advanced economies are nowadays dominated by large and impersonal corporations, but also that these are more interconnected than ever before. A consequence of this is the creation of an 'inner circle' of interlocking directorates where there is shared a 'consciousness of a generalised corporate outlook' (Useem, 1984, p. 5) that supersedes individual company interests. In Useem's estimation this is a reason for two especially significant developments. The first is the 'political mobilisation of business' (p. 150) during and unceasingly since the 1970s. Interlocks between corporations have created a basis which allows the corporate sector to participate effectively in politics on a broadly consensual basis, to respond, for instance, to what may be regarded as excessively high tax levels, to too much power vested in labour movements or to legislation which hinders enterprise and initiative. In the round the 'political mobilisation of business' is testament to the need for modern businesses to manage not just their internal affairs, but also the external environment that impinges on enterprise. The growth of the business lobby – with its opinion leaders, significant contacts, business round tables and constant stream of press releases and briefing documents – and increased support for pro-business political parties, free enterprise think tanks and vigorous backing to bodies such as the Confederation of British Industry (CBI), is evidence of a heightened awareness and commitment on the part of the corporate sector.

The second, and related, feature concerns characteristics of today's corporate leaders. They are chosen with an eye to their communicative skills. What Michael Useem (1985) termed the rise of the 'political manager' puts the onus on the capacity of business leaders to chart their way through complex political, economic and social environments and to think strategically about the corporate circumstances. An essential requisite of such talents is communicative ability, the

ability to persuade outside (and frequently inside) parties of the rectitude of company policy and practices. To Useem this emergence indicates ‘the most visible sign of a more pervasive change in the attitude of business [in which] the public affairs function [has] moved to the fore’ (p. 24). With these traits – aggrandized, interconnected, conscious of generalized interests and led by able communicators – corporate interests exercise a powerful influence on the contemporary information environment.

Another feature of business involvement in the information domain returns us to more mainstream activities. Again, it is during the key inter-war period that we can discern developments that have profoundly affected today’s circumstances. In brief, corporate growth led to the supplementing concern with production (what went on inside the factory), with an increasing emphasis on how best to manage consumption. As one contributor to *Advertising and Selling* observed: ‘In the past dozen years our factories have grown ten times as fast as our population . . . Coming prosperity . . . rests on a vastly increasing base of mass buying’ (Goode, 1926, quoted in Shapiro, 1969). In response, corporate capitalism reacted to minimize the uncertainties of the free market by attempting to regularize relations with customers. The steady movement of mass produced consumer goods such as clothing, cigarettes, household furnishings, processed foods, soaps and – soon after – motor cars, meant that the public had to be informed and persuaded of their availability and desirability (Pope, 1983). The imperative to create consumers led, inexorably, to the development of advertising as an especially significant element of marketing (Ewen, 1976). Seeing advertising in this way, as ‘an organised system of commercial information and persuasion’ (Williams, 1980, p. 179), helps us to understand its role in ‘training people to act as consumers . . . and thus for hastening their adjustment to potential abundance’ (Potter, 1954, p. 175).

It would be presumptuous to assert that this investment in advertising yielded a straightforward return. People interpret the messages they encounter variably (Schudson, 1984) and, anyway, advertising is but one part of a wider marketing strategy that might include credit facilities, trade-in deals, and the design and packaging of goods (Sloan, 1963). However, what an appreciation of the dynamic and origination of advertising does allow is insight into the business contribution to the modern-day symbolic environment.

Advertising has grown so enormously since the 1920s, in both size and scale, that it is impossible to ignore its intrusion into virtually all spheres of commercial activity (Mattelart, 1991; Fox, 1984). It is today an industry with global reach, one dominated by a clutch of oligopolies led by WPP (the largest agency in the world, headed by Sir Martin Sorrell, characteristically shrewd, assured and articulate with his Cambridge and Harvard Business School background), Omnicom and Interpublic, yet one which intrudes deep into consumer culture. From billboard hoardings, logos on sweatshirts, tie-in television serials, mainstream consumer advertisements, corporate puffery, sports sponsorships, to named university chairs, all are testimony to the fact that we now inhabit a promotional culture (Wernick, 1991) where it is difficult to draw the line where advertising stops and disinterested information starts. Moreover, as was noted earlier, this is not simply

a matter of the growth of advertising in and of itself, since the dependence of so much modern-day communications media on advertising as the major source of revenue itself decisively influences the informational content of a great deal of the press and television nowadays (Barnouw, 1978; McAllister, 1996).

Finally, we might emphasize that the need to manage wide spheres of corporate activity reminds us how the advertising ethos carries over from selling goods to selling the company. The routine concern for branding that is now part of the lore of corporations – from Adidas sportswear to the reassuringly multicultural imagery of HSBC – testifies to this tendency. It is commonplace to encounter messages that banks ‘listen’, that oil interests ‘care for the environment’, that international corporations are ‘the best of British’ or that insurance companies ‘cater for each and every one of us’. We may not be quite so alert to the persuasion, but similar sorts of images are sought whenever companies lend support to children with disabilities, or to local choirs, or to theatrical tours. As a leading practitioner in this sector boasts, the prime purpose of such persuasion is that companies will ‘be given the benefit of the doubt and the best assumed about it on *any issue*’ (Muirhead, 1987, p. 86). We can understand how corporate attempts to manage consumption readily merge with corporate ambitions to manage wider aspects of the contemporary scene, up to and including political matters.

What have been considered above are major dimensions of the corporate presence in the information domain. It is quite impossible to measure precisely, but, observing the spread of advertising *in its many forms*, as well as the expansion of public relations and lobbying, we can be confident in saying that businesses’ *interested* information contributes enormously to the general information environment. Directly in the advertisements which are projected on our television screen, indirectly in the influence advertising brings to bear on most media in the contemporary world; directly in the director of the CBI being asked for the perspective of ‘industry’ by the journalist, indirectly through ‘Enterprise Education’ materials supplied free to primary schools; directly when a company’s personnel director is interviewed on television, indirectly when the PR wing succours favour through ‘hospitality’. Because this information is motivated it risks denuding discussion whenever it gets involved and, more generally, it is a corrupting force in the wider information environment, where its economic power gives it disproportionate advantage over less privileged groups.

There are, of course, constraints placed on the corporate sector’s desire to shape information to suit its purposes. These stem from business having to work through media practitioners who may have cause to be sceptical of businesses’ handouts and who can often be drawn to coverage of business for journalistic reasons (Hallin and Mancini, 2004). However, we also have the conclusion of distinguished reporter Nick Davies (2008) that – due to media’s own emphasis on profit maximization at a time of intense competition and declining sales – most reportage in Britain has been reduced to the reproduction of agency reports and PR puffery.

Another trend that pollutes the information domain was observed by the late Neil Postman (1986). His focal concern was television’s entertainment orientation that has extended throughout contemporary culture, bringing with it an ethos of

immediacy, action, simplicity, dramatization and superficiality. In Postman's view these values have permeated news coverage, education, politics and even religion: everywhere they have displaced valuable information with infotainment. In this view television impoverishes the wider information environment because it accentuates the sensational and bizarre, centring on the easily digestible at the expense of dispassionate and closely reasoned analyses. Because of this we will learn little about the functioning of transnational corporations, but are liable to discover much about the boudoirs of wayward celebrities.

This section opened with a review of the growth of information management in the political realm. It is here where is found most concern for the intrusion of 'packaged' information since when we cannot be confident about what is read or heard political debate loses much of its validity. Yet it is in the polity that trends towards the routine management of information appear most advanced (Franklin, 1994).

There are several dimensions of this phenomenon. One concerns the presentation of political images, issues and events. The transformation of Margaret Thatcher, under the tutelage of PR expert Gordon Reece and Saatchi and Saatchi Advertising, is well documented (Cockerell *et al.*, 1984): her hair was restyled, her voice delivery reshaped and her style of dress changed to project less harsh imagery. But the introduction of presentational techniques went further than this, extending to the production of speeches that featured snappy 'sound bites' created to fit the evening television's headlines, to the careful selection of venues for appropriate 'photo-opportunities', if possible with logos, slogans and sympathy-inducing colour schemes on display. Again, there is the meticulous preparation of settings for political speeches, these being delivered to invited audiences of political supporters (to avoid unseemly confrontations with opponents who might attempt to debate). As such they are rallies to celebrate an agreed political platform, not public meetings aiming to argue and convince. More generally events are stage managed for the television cameras, hence the carefully constructed backdrops, the eye-catching bunting and, of course, the 'spontaneous' applause. Concern is not with open and honest debate, but with using events to best 'manage' public opinion.

Another dimension of information management is intimidation, especially, but not only, of television organizations. During the 1980s there was a good deal of this, from a general antipathy towards the BBC because of its state funding, to direct attacks on coverage of many issues, especially concerning Northern Ireland (Bolton, 1990). Intimidation can be supplemented by censorship, as with the banning in 1988 of Sinn Fein from British television and the revelation that news and current affairs staff appointments were vetted by a secret service staff member located in Broadcasting House (Leigh and Lashmar, 1985).

All three features of information management – information packaging, intimidation and censorship – together with government secrecy that is the reverse side of the same coin, are especially evident in conditions of crisis. Here nothing is more compelling than circumstances of war and terrorist activity, things that Britain has experienced in Northern Ireland since the early 1970s, in the Falklands in 1982, in Iraq in 1991 as well as in 2003, in Kosovo in 1999 and in

Afghanistan since 2003. Each of these has demonstrated that information has become an integral part of the military campaign, not least information for domestic consumption since public opinion can bear decisively on the outcome of a war.

In situations where the 'enemy' has limited access to media outlets and where the military goal is pursuit of victory (rather than truth-seeking), opportunities for distortion and dissembling are plentiful and motivations to deceive are easy to understand. As such, the media are readily regarded by politicians and the military alike as a means of fighting the enemy, hence as instruments of propaganda. In addition, ever since the American defeat in Vietnam and the emergence of the argument that it was lost due to an uncontrolled press and television corps (Elegant, 1981) there has developed much more self-consciousness about 'planning for war' on the part of the authorities (Hallin, 1986). Thus during the Falklands War restrictions were placed on journalists' access to the theatre of battle and each was allocated a military 'minder' to ensure proper behaviour; more recently this system has been extended to militarily 'accrediting' favoured journalists in times of war.

The drawn-out conflict in Northern Ireland revealed routine manipulation of information (Curtis, 1984), but it was after the Falklands War that information management became markedly more organized (Ministry of Defence, 1983, 1985). A result was an effective PR machine in operation during the 1991 Gulf conflict, media coverage of which was unprecedented in scale yet antiseptic in content. The framework was built around the Allies' point of view and their terminology; hence we heard much of 'surgical' air strikes and 'pinpoint accuracy' of bombing, but little if anything of human destruction, a presentation of a 'war almost without death' (Knightley, 1991, p. 5).

During the Afghanistan campaign and even more during the Anglo-American invasion of Iraq in 2003, media management was a priority of the military and its political directors. Success in this was achieved, but not easily, since the plethora of alternative news sources and the sheer volume of reportage, combined with lightweight communications technologies and the availability of the internet, made it difficult for the military always to ensure passage of its preferred messages (Tumber and Webster, 2006). However assiduously prepared are the military plans, the information environment in conflict zones nowadays makes it difficult for them to be effected with total success (Gillan *et al.*, 2008).

The threat of war and insurgency is not an aberration for democracies. Preparedness for such circumstances is a requirement of our age, a key dimension of which is public opinion since this can be crucial in the success or failure in any conflict. This preparedness necessarily results in systematically distorted information, information dissemination not to provide knowledge but to advance the interests of military combatants and politicians. As such, it joins with broader patterns of information management to compromise public knowledgeability, thereby to narrow the range of public discussion and debate, even if its goals are difficult to fulfil.

Objections

The foregoing has described the spread of information management by politicians, government and business interests. When added to the well-documented pressures operating on public service institutions, it might appear that there is reason to concur with Habermas's pessimism: public knowledgeability has been denuded by professionalized opinion management and the forces of commercialism.

I concur with this as an account of the direction of informational provision. However, attempts to cast this in terms of a purported decline of the public sphere encounter several objections. One involves an important matter of terminology and definition. It is my view that too much is made of the over-worked concept of public sphere. Public service institutions, chiefly beneficiaries of the Exchequer, play an important role in improving the information environment because they offer, without significant barriers to access, more reliable, robust and variegated information than commercial outfits. The BBC, government statistical services and public libraries also have autonomy from sectional economic and political interests, plus professional commitment to disinterestedness and impartiality, of inestimable value to democracies. Doing this, they perform a vital part in generating and making available public interest information (cf. Iosifidis, 2011). These are admirable roles that merit defence against commercial and political opponents, and not least – though not only – because they strengthen democracy. However, it seems to me unnecessary and unwarranted special pleading to hitch this defence to claims that public service organizations are to be regarded as almost synonymous with the public sphere and thereby foundations of democracy.

Another objection concerns the point of comparison from which one contends there has been a decline. If our starting point is the 1880s, then we must surely arrive at different assessments than were we to begin with 1980. Moreover, casting a backward glance over virtually anything but a generation or two, initially at least it does seem odd, even bizarre, to suggest that the situation in the late nineteenth century could be somehow superior to that pertaining today, since then the majority were disenfranchised and huge numbers even lacked the literacy to be able to read reports in the *Times* and *Morning Post*. Can anyone seriously sustain the argument that people are more impoverished informationally than their forebears in the nineteenth century?

Such trends have to be admitted. Yet we cannot ignore, too, the changes that have taken place in the information domain – the commodification of knowledge, the assault on public service institutions, the emphasis on persuasion, the escalation of advertising-oriented media, etc. – that mean the potential for and practice of information management and manipulation are immensely enlarged. Perhaps this is the paradoxical situation that we should acknowledge: opportunities for mendacity and routine interference as regards information are much greater nowadays. At the same time, there are countervailing tendencies that give people the means to extend and participate in more open *public spaces* than have hitherto been offered – educational levels are so much greater, the sheer range and depth of information sources available today outshine those of previous epochs, and the ways in which people now can take part in public affairs are much easier

(cf. Papacharissi, 2010b). Bruce Bimber (2003) persuasively demonstrates that the internet has greatly reduced the entry costs for campaigners wanting to influence the political process. As such, there is a weakening of established political parties and an opening up of politics to those adept with social media and driven by commitment to change.

A counter to this objection does not argue for an unmodified defence of arrangements that are presumed to have been working well until the onset of commercial pressures and unsympathetic governments. Instead it urges reform of institutions that are worth preserving by renewing their reasons for being. This is James Curran's (2002) case, insisting that defence of the BBC needs to be placed in a context of democratization of media. Curran's view is that the once familiar support for the BBC in terms of high cultural standards nowadays lacks credibility, but an argument made in terms of increased citizen involvement is compelling. Such a defence requires greater accountability of the BBC to the public, emphasis on citizens' rights to be informed about matters relating to the public good, and a widening of representation within the organization. John Keane (1991) also spurns any return to old-style public service broadcasting, if by this is meant fully state-supported media that tend to speak in homogenizing terms (on lines of 'the nation feels', 'the British view is'). This is not feasible in today's globalized and differentiated world where there is suspicion of state-organized broadcasting. Keane (1998) underlines a need for non-state associations that are plural, complex and dynamic. What is desirable is a multiplicity of ways in which people may come together to debate, argue and inform one another while maintaining their autonomy. Not surprisingly, this leads Keane to see potential in the internet, in chat rooms, bulletin boards, digital television and the like for extending democracy. Blumler and Coleman (2001) go still further, urging an 'electronic commons' to be established where the informational needs of highly diverse citizens may be assured, in effect a public service requirement for the internet whereby space is assured for non-commercial purposes. These are appealing propositions, striving to suit informational needs with changing times and shifts in the meaning of democracy.

Beyond the public sphere?

Until recently the notion of the public sphere – and its presumed corollary public service – appeared sacrosanct to critics of a commercialized information domain. The latter conceded readily enough that the public sphere was flawed. Rarely, however, did one encounter commentators who thought that the concept could be jettisoned, since the consensus was that state subsidy was essential to overcome deficiencies of the market system when it came to matters of information and, moreover, this intervention could be regarded as *de facto* a central component of the public sphere.

More recently it has become possible to suggest the concept of the public sphere makes little useful contribution to our thinking about the connections between information and democracy. One criticism observes that globalization (and attendant new markets as well as new technologies) is leading towards the

establishment of transnational public spheres, which one may see instanced in internet exchanges across the globe, satellite television services that transcend national borders and the emergence of international news makers like CNN and Al-Jazeera. John Keane identifies differentiated *public spheres*: at a national level broadcasting as a continuing important information source, but one which is inter-cut both by transnational organizations and micro-level information agencies such as radio and the blogosphere.

Here the terminology lingers, though the concept public sphere loses a good deal of its traction when put into the plural since what is suggested is that we now have a range of sites – better described perhaps as *public spaces* – at which audiences may receive and give information, irrespective of its provenance. What we have is acknowledgement that there are various places/spaces from which one may gather and disseminate information, but this is a far cry from the concept of a public sphere which evokes a sense of unity and connectedness where dialogue and discussion ensue that is lost in conceptions of multiple public spheres that are disparate and dispersed.

Other commentators pay particular attention to the potential of *new media technologies* to displace the public sphere. Bruce Bimber (2003), for instance, points out that the entry costs to political campaigning are markedly reduced by the adoption of information and communications technologies. Those seeking change today can readily create a web site, set up electronic subscriber lists and electronic newsletters, and thereby they can begin to participate in campaigns without the former reliance on expensive printing and distribution of written materials and the exhausting and time-consuming rounds of public meetings (Gillan *et al.*, 2008). New media mean that campaigners are less dependent on traditional political parties than before. Nowadays activists have the tools to enter politics at a cost that is no longer prohibitive. The internet means that their voice may be heard without benefit of support by organized forces such as trade unions, business sponsors or established political parties. As such, the grassroots are empowered since they may be heard courtesy of new media and without approval of established parties. By the same token, there is less need for public service institutions to be succoured because new technologies allow even relatively poor activists the means to get their information into the public domain.

Fragmentation and cocooning

If a combination of forces – globalization, neo-liberalism, new technologies . . . – is announcing the demise of public service organizations that have been taken as expressive of the public sphere, we may observe something else. This is that, while there is now a profusion of information available round the clock and vastly increased opportunities to produce as well as receive information, this has been accompanied by the fragmentation of audiences. I noted earlier that the BBC, which once could command audiences of 20 to 30 million for popular programmes, has now lost this capacity. A large audience now for a British television show will be 8 or 9 million.

This transformation has come about for a variety of reasons, including the availability of recording facilities that allow viewers to 'time-shift' to maximize convenience and the spread of digital technologies that allow similar advantages via the computer. However, a primary force has been the extraordinary increase in programming offered, from all-day service provision to many more channels coming from established as well as from new providers from within and beyond national borders. In such a situation it is inevitable that audiences will fragment so that, while people may watch more than ever, they now watch more selectively. Fragmentation of audiences is not limited to television and radio. It is also a feature of, and is indeed exacerbated by, the emergence of the internet.

But there is more than fragmentation at work here. Herbert Simon long ago observed a scarcity that attends upon abundance of information – the attention of audiences:

In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.

(Simon, 1971, pp. 40–1)

Here lies reason for concern – abundance of information can mean fragmentation *plus* difficulties of coping with information excess. For instance, Cass Sunstein (2006) contends that to cope with information abundance filtering processes are established which can result in audiences inhabiting 'information cocoons' that allow in only safe and self-confirmatory information. While it might be imagined that the advent of the World Wide Web, blogging and e-mail would vastly expand the horizons of audiences, on the ground profusion of information may just as readily lead to fragmented groups paying heed only to that which suits their prejudices and predispositions. Such 'cocooning' may make personal life easier, but it contributes little to the opening of minds and expansion of informational horizons. By the same token, the consequences for democratic debate cannot be presumed to be advantageous just because there is a greater amount and even diversity of information available nowadays.

Furthermore, there is evidence that filtering to cope with information overload tends to exclude that which is disturbing, contentious and challenging. What we then can see is a form of 'cyberpolarization' whereby filtering stimulates information cocoons that relegate and even reject nuanced positions (Sunstein, 2009). That is, web sites are established to which audiences may be drawn because they concur with their point of view, but these sites link overwhelmingly to like-minded information and relegate oppositional sites. Over time, suggests Sunstein (2007), one gets information 'balkanization' (p. 63) that exacerbates fragmentation and isolation. In such circumstances, information abundance may contribute to the diminution of democracy.

Beyond state-centric solutions?

It is also necessary here to reflect again on changes in the crucible of democracy, the nation state. It is in the nation that elections are conducted, debates and programmes scrutinized, and where voters make known their preferences. And it is within the nation state that the public sphere is institutionalized. At its best, the public sphere would be where debates and discussions would take place among citizens engaged in conversations about what would be the most preferable directions of government. In Habermasian terms, it would be here that, following open scrutiny, a national consensus would be created.

There are many difficulties this conception must now face. Among them is the objection that the achievement of consensus in democracies has tended towards being discussion among privileged elites, in Britain largely one set of Oxbridge men debating with another set of Oxbridge men whose lives in recent decades have been wholly dedicated to politics. Furthermore, serious questions need to be asked regarding the feasibility of nation state organized democracies in an era of intensive globalization. Directly impinging on the public sphere concept, there is the matter of citizens' informational resources in a globalized era. Whatever its shortcomings, it is possible to argue that public service broadcasting played a role in meeting these requirements, enabling audiences to learn more about political affairs. Today, however, this function of public service broadcasting must be open to question when satellite television, cable and the internet open viewers and listeners to a galaxy of alternative information sources. As John Keane (1991) insists, this 'old dominance of state-structured and territorially bounded public life mediated by radio, television, newspapers and books is coming to an end' in a world where we have a 'multiplicity of networked spaces of communication which . . . outflank and fragment anything formerly resembling a single, spatially integrated public sphere within a nation-state framework' (p. 169).

There are those who acknowledge these transformations yet who persist in adopting the terminology of public sphere (cf. Gripsrud and Moe, 2010). It is arrestingly advanced by Manuel Castells (2008). In characteristically bold style, Castells concedes deep challenges to state-centric conceptions of democracy emanating from the combined forces of globalization and rapid technological innovation. However, far from despairing in the face of these pressures, Castells projects a 'networked public sphere' coming into being that can transcend national frontiers, connects to and changes established media, and yet also introduces 'horizontal' modes of communication that empower the grassroots. In the twenty-first-century 'network society', Castells envisions a 'global public sphere (that) is built around the media communication system and internet networks, particularly in the social spaces of the Web 2.0' (p. 91).

Castells is empirically correct here, but the globalized networks that he identifies can be presented as contributing to a 'global public sphere' only tenuously since their connection to democratic debate and discussion is remote and their memberships and aims are issue oriented rather than intended to contribute to wide democratic concerns.

Democracy reconceived?

In the light of such challenges the concept of the public sphere begins to look flaky. Globalization has brought new sources of information that undermine national frontiers, new technologies raise questions about established modes of information production, distribution and reception, audience fragmentation and cocooning in the face of information overload suggest new media may stimulate information enclaves rather than enrich debates, and there are profound questions that need to be raised about the capacity of the nation state to match the demands of democracy in a global age. There is no doubt that there are numerous spaces where people may access, discuss and even contribute to information, but the Habermasian concept scarcely captures them. They are fragmented, lack room for dialogue and offer little in the way of developing consensual decision-making.

We might add here some reconsideration of the meaning of democracy. As argued earlier, democratization is an ongoing process that is subject to extension and redefinition. Illustrative of this, over recent decades there has emerged in Western democracies the notion that democracy entails the tolerance of differences. Where once democracy implied considerable uniformity among large swathes of citizens, nowadays it evokes a tolerance of differences, a commitment to live together in ways that do not exclude those whose lifestyles, preferences and attitudes at one time would not have been accepted by a majority (Young, 1990). Today, indeed, it can be suggested that democracies are constituted by diverse peoples, such that majority/minority distinctions are problematical, since one might be a minority in one dimension yet a majority in another.

From this perspective what such as Cass Sunstein regard as worrisome fragmentation among audiences and creators of information is not a problem since these developments merely make manifest the profusion of differences found within a healthy democracy in which markedly differentiated peoples rub along together. In addition, writers who celebrate new media's capacity to enable once marginalized groups to access a platform for their views (Dahlberg, 2007) are quick to criticize the model of democracy used by those who would deplore diversity as 'information chaos'.

These latter, operating within a Habermasian frame, presuppose the desirability and feasibility of democracy entailing debate in a unified public sphere that works towards consensual resolution through the triumph of superior rationality. Objections to this, however, are, first (as already noted), that in practice the public sphere has almost everywhere been dominated by privileged elites who have managed to establish their hegemony across the wider society. Second, it is objected that the Habermasian model is out of touch, unable to accommodate the realities of democracies that accept diversity as a distinguishing characteristic. The model of democracy in which citizens and their representatives participate in discussions so that consensual decisions about how to live are achieved has difficulty in accepting that an important measure of democracy nowadays is its capacity to include as legitimate *incommensurate* differences of religion, ethnicity, sexuality, lifestyle and so on.

If one does embrace difference as a defining feature of contemporary democracy, then the profusion of information from diverse sources might be celebrated. It may be messy, but it helps identify a vital feature of democracy as an unfinished project. Such a way of seeing also allows us to appreciate that democracy ought not to be regarded, at least straightforwardly, as a means of deciding upon most rational policies through debate and discussion. This will be evident from any number of decisions that have become questionable with hindsight (for example the closure of much of the railway network in the 1960s in Britain, the building of flats in tower blocks round the same time). Looking back we can see not only that many decisions have been made on grounds of rationality that later look dubious, but also that in arriving at those decisions power differentials were in play (for example, the road-building lobby was much favoured when deciding on rail closures, and in the area of housing policy planners and architects were dominant forces).

Such questioning of a conception of democracy that lays stress on 'rationality' allows us to better understand that rationality emerges through 'discourses' between and within individuals and groups (Dryzek, 2000). In an era in which we have seen the rapid growth of groups able to find outlets for their views using new media (one might think here of once marginalized actors), a question is how might these views connect with other discourses in society that they might find acknowledgement and even appreciation? The salient point is that such an approach to democracy recognizes discourses, not 'rationality', as vital to its making. From this point of view, one approaches democracy and information matters by conceiving democracy as a system capable of encompassing differences alongside an information explosion that enables groups to find means of expressing themselves. Seeking not an overall rational answer that homogenizes relationships, but rather accepting diversity while encouraging points of intersection among different constituencies might then be a positive way of advancing an inclusive form of democracy (cf. Fraser, 2008).

This may seem a desirable goal, to aspire to democracy that is tolerant and respectful of diversity and where once marginalized people may find a voice. But we might hesitate before too hurried an acceptance. One reason is that this smacks of a consumerist ethos, of the belief that democracy means doing one's own thing and, associated, that just about anything is permissible. Praising diversity can come close to endorsing a watered down view of democracy that regards it as little more than the pursuit of individual (at the least, sectional) preferences.

Moreover, one might hesitate here before we abandon the notion of a public sphere dedicated to finding the most rational solutions. Diversity may be fine when it comes to questions – important though these are – of sexual orientation, lifestyle choices or even religious beliefs, but we do need a public sphere which does strive to reach decisions, after debate, on matters such as taxation, education provision and welfare. To raise such queries is to insist on prioritizing among issues in a democracy. Necessarily, then, one must have concerns about developments that increase information resources and thereby enable the sidelined to gain attention, but which perhaps divert attention from the more important aspects of a democratic society. Michael Edwards (2004) helpfully identifies civil society as 'the land

of difference, the place where we find meaning in our lives as people of different faiths, races, interests, perspectives and agendas'. But he distinguishes this from the public sphere, which he regards as essential to 'the governance of complex societies and the preservation of peaceful coexistence' since it works 'within a common commitment to the interests of a public'. In short, a public sphere of some sort remains necessary to democracy precisely because 'particularities [must be] surrendered to the common interest' (Edwards, 2004, pp. 61–2) if democracy itself is to prosper (Garnham, 2000). This still takes place largely within nation states, which, albeit strained at times, require a *political public sphere* to be effective. The formal political processes are key to this, as are its informational resources. It is here, too, that one can still find justification for state-funded public service institutions in so far as they support democracy by providing robust information that market interests will tend to ignore. Note, public service institutions support, but are not synonymous with, the public sphere here, which in turn is conceived circumspectly in terms of the political public sphere.

Over-idealization of the public sphere

There is yet another charge that may be made against the public sphere notion, that it is priggish in its presumption that worthy citizens ought to be engaged, earnest and well informed about matters of state. There is around the term a whiff of censure towards those who are less than fully abreast of political circumstances and trends. Put more kindly, one might think of public sphere supporters as presenting politics in an aspirational manner, as an ideal towards which all meritorious democracies might strive.

An objection is that citizens may be concerned democrats, but that this does not call for their wholehearted engagement with politics. Donald Winnicott (1896–1971) coined the term 'good enough' parenting in response to those who, providing advice on best-available child-rearing, appeared to present an unattainable state of perfection. The notion of 'good enough' democrats might be usefully advanced against those who, personally immersed in political issues, readily condemn those who lack the same zeal. We will all have heard the criticism that those who profess a lack of interest in political machinations are shamefully ignorant, that 'surely you must know' about *x* or *y* scandal. Very often such criticism comes with the admonition that the apolitical citizen is letting down democracy ('People died for the vote', 'You should be ashamed not to know what has been happening in Parliament'). To these and similar charges it needs to be insisted that because people are less than fully engaged in political matters does not mean they are less than wholehearted democrats. It is merely that politics does not consume all of their lives.

Michael Schudson's (1998) conception of the 'monitorial citizen' is especially helpful here. Schudson assesses the record and finds that the connections between information and democracy are not so tight as Habermasians might like to think. The public sphere never functioned so well as its adherents imply and, while there have been measurable declines in political participation over recent years,

these have been offset by the spread of rights (of gender and racial equality as well as of welfare) that have come about through political struggles, but are now defensible through legal and quasi-legal means. In the round, despite talk of a democratic deficit, Schudson judges that the timbre of today's democracy is sounder than ever.

Moreover, Schudson (2008) observes that, living in complex societies, it is unrealistic to expect everyone to be expert in everything, and this includes being expert in politics. Nowadays politicians are overwhelmingly full-timers who begin their careers early and rarely command a serious job outside the polity. The regular citizen, even if she or he wanted it, cannot hope to possess the necessary knowledge and skills of the career politician. This is not necessarily to be deplored since each of us is dependent, one way or another, on experts (and in turn every expert is dependent on other experts). Such is the condition of living in a complex society. However, this need not disenfranchise citizens, and it does not mean that we must all become deeply knowledgeable about politics, since citizens today are 'monitorial rather than informed' (p. 310) and thereby able to exercise their influence at decisive moments (obviously at elections, but also through investigative media and other querulous experts who routinely challenge politicians' judgements).

This perspective should not be interpreted as a celebration of know-nothing ignorance among the public that is manifested in expressions of deep distrust of politics and politicians. Rather, what it endeavours to capture is the coexistence of public *distrust* and day-to-day *trust* in elected representatives that characterizes contemporary democracy. Each of us will recollect times when people have voiced suspicion that 'politicians are just in it for themselves' or that, whatever politicians promise in election campaigns, in office they compromise and concede. On the other hand, each of us will also be able to acknowledge that there are just too many other things to do for each of us to bone up on the details of the Chancellor's tax budget, still less to immerse ourselves in the detail of legislation. As Schudson (2006) puts it, 'none of us is well enough informed to make judgments about every important issue before the public' and, because this is so, 'we all have to trust others' (p. 505). Nonetheless, this does not mean that we prostrate ourselves before expert politicians, since we can and do query them and their actions, not least by drawing on the expertise of others that can challenge policies and practices. It does mean, however, that we must acknowledge both 'the complexity of democracy' and the 'democracy of complexity' (p. 504) of the modern age.

Michael Schudson's argument resonates with recent debates over the role of the internet in democracies. It is often suggested that new media will revitalize democracy because they allow users to command huge resources that will make citizens better informed, because they mean citizens are able to respond rapidly to challenge and correct statements courtesy of their interactive properties, or because they enable campaigners to mobilize support much more effectively than in the past. New technologies are granted here a privileged role, being seen as capable of empowering citizens by providing means by which ordinary people may get a more direct and powerful say in public affairs. For Yochai Benkler (2006)

the emergence of new technologies brings nothing less than a 'networked public sphere', one vastly superior to what went before since that relied perform on top-down mass media. A host of developments, from social networking to individual blogs, from e-mail to chat rooms, from web sites to citizen journalism, can in this way be regarded as democratizing forces in so far as they allow people down below, once reliant on others to speak on their behalf, to put across their views without benefit of 'expert' intermediaries. In these terms one-time consumers of information can become producers thanks to new technologies that bring about *disintermediation* and allow user-generation of content.

Much of this is to be welcomed even if the substance of the change may not be as marked as enthusiasts hope (Bennett *et al.*, 2008; Tarrow, 2005). However, here we may strike a note of caution by recalling Schudson's insistence that each of us is dependent on expertise as an inescapable condition of life today. When we look at democracy and information from this angle, we can soon appreciate that the modern world is far too complex for any of us as individuals, or even for any one institution, to fully comprehend. It behoves us therefore to acknowledge that an essential feature of democracy is governing through the collaborations and compromises, and attendant balances of trust and scepticism, that accompany efforts at making decisions about how we might live. We cannot organize the world alone, or even with a sole institution, so we must rely on others' expertise and make necessary adjustments.

Enthusiasts for disintermediation are excessive in greeting the internet and cognate technologies as revolutionary democratizing forces. To be sure, it is positive that citizens gain improved means of voicing their concerns, but the pendulum swings too far if blogging and social network sites result – as they may – in a cacophony that amounts not to more information but rather to distracting 'noise'. This also recalls a point made a few pages back (pp. 237–8), and it bears repeating, that there are risks to democracy if new media lead to a profusion of information that comes from and goes to only isolated and self-confirmatory groups. For democracy to be effective there must be more than a multitude of individual (and marginally connected) voices.

This is not to deny that some blogs have made useful contributions to democratic discourse. Indeed, there is some evidence (Albrecht, 2006) that on the internet there is a kind of self-policing in that sites can build a reputation for helpfulness that results in the relegation of the idiosyncratic to the periphery. Matthew Hindman (2009) makes a related point when examining actual use of new media (by analysing web traffic flows). He demonstrates that, while there is a lot more information flowing around the internet, we cannot assume this translates into increased democracy since most people who use the internet actually visit just a few sites. Indeed, Hindman shows that, over a five-year period, five sites alone account for about 25 per cent of all internet traffic, a degree of concentration even higher than is found in even the traduced monopoly press and television media. Curiously, this refutes the charge that participation through the internet results largely in disjointed 'noise', but raises the problem of what, then, is new?

There remains concern that blogging encourages the production of solipsistic opinion that, while it has the superficial democratic appeal of each person having

an opportunity to speak out, can weaken democracy by encouraging fragmentation and the dissemination of uninformed points of view. We cannot return to an era of deference towards 'superiors' who once conducted politics (and much else) on our behalf, but Andrew Keen (2008) makes a valid point when he expresses concern about the decline of authorities in a period when, instead of using the internet 'to seek news, information or culture', people appear to use it to 'actually BE the news, information, the culture' (p. 7). Authorities act as gatekeepers and at their best serve to filter reliable and robust information from that which is of little if any use.

It is hard to imagine a genuine democracy where each and everyone provides and accesses whatever information he or she fancies. 'When we are all authors', asks Keen (2008, p. 65), 'whom can we trust?' At the same time, the extension of opportunities to put over points of view that may have been unjustly marginalized is not to be gainsaid. Nonetheless, while new media promise much wider constituencies a 'voice', Hindman (2009) is right to query what this might mean in terms of the chances of being 'heard'. A major problem is how to connect these contributions with wider informational resources. A democracy must have means of determining common interests and concerns, and this implies the provision of sites for dialogue where views can be exchanged, debate conducted and decisions arrived at. The political public sphere within nation states has been the established way of thinking about how this might be arranged, but, for reasons given above, it is under strain.

Quality of information

As we have seen, social democrats have little problem demonstrating the market's inadequacies when it comes to informational matters. This familiar critique is the starting point for insistence on state support for public service institutions such as libraries and museums. While there is some concern about political interference in information where the state does get involved, especially about PR and packaging, the supposition is that public service institutions are favourably situated to develop, consider and disseminate the best possible information that is foundational to democracy. This will involve, as we have been reminded, a wide range of accredited experts (statisticians, journalists, academics, scientists and so on), as well as professional politicians and concerned citizens, who will originate, assess and debate so as to ensure the information is rigorous and trustworthy.

However, Cass Sunstein (2006) presents reasons for hesitation before accepting this account. Against the presumption that the most robust information comes from experts in whom the public necessarily invests trust, Sunstein reminds us of the influence of prestige and reputation that can shape relations between experts (and hence the information they generate), of the import of rhetoric when it comes to the weighing of evidence, as well as of the significance of 'informational cascades' when even experts follow conventional wisdom or viewpoints that are *à la mode*. The gravamen of Sunstein's case is that deliberation among experts does not necessarily lead to production of the best information.

This leads him to express sympathy towards anonymity and openness as a means of ensuring the best possible information availability – practices encapsulated in the wiki phenomenon. It is frequently derided, especially by experts, but Wikipedia (and wiki practices more generally) allows pretty much anyone to participate in the production of information without express involvement of (and restriction to) acknowledged experts. And the results are impressive.

It is important to state here that Sunstein (2006) is not embracing blogging as a means of vitalizing democracy since in his view this leads to ‘a stunningly diverse range of claims, perspectives, rants, insights, lies, facts, falsehood, sense, and nonsense’ (p. 187). Blogging allows anyone to say anything; wikis are documents that are subject to correction and editing by any other anonymous contributor at any time. This makes for a high degree of reliability as regards the information created.

Sunstein’s interest in wiki practices as a means of achieving the best possible information goes back to Condorcet’s (1743–94) Jury Theorem, which contends that where the average chance of a member of a voting group making a correct decision (in a trial, an election, a public inquiry) is greater than even, the chance of the group as a whole making the correct decision will increase with the addition of more members to the group. This contention has it that the average decisions of more members of a large group are more accurate than decisions made by small groups of experts. It echoes the argument of James Surowiecki (2004) in his book *The Wisdom of Crowds*.

At first glance this may appear counter-intuitive, but examination of Wikipedia finds it generally the equal of the experts-only *Encyclopaedia Britannica* (Giles, 2005).¹¹ Anecdotal evidence also suggests that it is used as a matter of routine by scholars and journalists, even though the former especially are quick to sneer. The general wiki principles – anonymity of contributions and openness to editing of materials – show signs of offering a viable alternative to an expert-dominated means of ensuring the best-possible information is made available. One needs here to reflect on Sunstein’s (2006) recommendation that ‘many institutions should consider more use of the secret ballot to elicit more information’ (p. 208) on grounds that members possess lots of knowledge about organizations to which they belong (in offices, factories, universities and political parties) and they are more likely to provide this when protected by anonymity. It is a serious suggestion that wikis can generate better information than that created by clusters of experts. Imagine, for instance, a company’s five-year plan being produced on a wiki open to all the staff rather than restricted to the Board of Directors, the university’s future direction set by a wiki document to which all its members could contribute, the political policy documented on a wiki to which all interested parties could contribute . . . Technologically this is feasible and there are grounds for thinking this would produce superior information than those documents created by bands of experts.

Conclusion

Those who regard the market system as incapable of meeting the informational needs of democracy have long recommended state intervention to rectify inadequacies.

Public service institutions have been a manifestation of this advocacy that has in recent decades been presented in the cloak of Habermas's public sphere. The policy has found institutional expression in most Western European countries (with due allowance for national particulars), but this way of seeing extends very much further, especially among scholars of information and communications. Thus even in the US, where interventions in the market are readily interpreted as assaults on liberty, an array of influential commentators (e.g. Barnouw, 1978; Schiller, 1996; Bagdikian, 2004; McChesney, 2008) have commended it. More recently, Columbia University President Lee Bollinger (2010) has called for 'public funding for journalism' to ensure that Americans are not deprived of 'the essential information they need as citizens', observing an indebtedness – and urging emulation – of Americans to the BBC, which has a 'reliable public funding structure [that] has yielded a highly respected and globally powerful journalistic institution'.

It can be conceded that the market is imperfect when it comes to fulfilling democracy's needs. That actually existing circumstances are inadequate is beyond dispute, so it follows that reform is a no-brainer. This chapter is being written during the unfolding in Britain of a crisis, where repeated unethical (and often illegal) journalistic practices have been shown to have taken place, mostly, but not solely, in the tabloid newspapers of News International (Leveson, 2012). Several hundred people have had their telephones illegally 'hacked' (i.e. phones have been illegally listened into by third parties); not just those of celebrities and politicians, as was widely supposed, but those of victims of heinous crimes, including an abducted and murdered child, families of soldiers who have been killed serving their countries, relatives of casualties of the 7/7 terrorist attack on the London Underground, and possibly even the loved ones of 9/11 dead in the US. It appears that serving police officers have colluded in this, supplying names, addresses and numbers for money and favours to journalists, this to the extent of revealing confidential details about members of the Royal Family, at a time when these officers' superiors failed to investigate allegations that such malpractices were taking place as assiduously as one might have expected and when several senior officers enjoyed close working relations with News International executives (an intimacy that precipitated the resignation of the Commissioner of the Metropolitan Police Force, Sir Paul Stephenson, Britain's most senior police officer). Gordon Brown, one-time Prime Minister and long-serving Chancellor of the Exchequer, charged in the House of Commons that details of his bank account, his tax returns and even the medical condition of his disabled younger son had been gathered by nefarious means. 'Hacking' and 'blagging' (impersonating a legitimate person in order to access personal information) appear to have been especially widespread in Rupert Murdoch's intensely commercial, profitable and right-wing outlets, elements of an 'attack journalism' that is sensational, malign and misrepresenting.

Faced with such evidence there can be little argument that something remains profoundly wrong with market-centred media.

Yet the once ready solution – public support and subsidy for alternative information organizations – appears less than tenable. Former Minister David Miliband

(2011) has conceded that 'reformist social democracy seems to have been put in check' and wonders aloud 'whether it is check mate'. Public service institutions that harness their claims for state subsidy on grounds that they represent a foundation stone of the contemporary public sphere that must not be removed can now appear guilty of special pleading. They seem to have lost considerable public trust and are regarded as stuffed with self-serving and well-rewarded elites who appeal for public subsidy to ensure their own futures.

Public service notions served a recognized purpose in an era when the nation was informationally sovereign. Nowadays, however, they have considerably less traction than a generation ago. Globalization that challenges state-centric practices, new technologies that provide easier access, hugely expanded informational resources, ready opportunities to produce as well as receive information, changing meanings of democracy that lay emphasis on toleration of differences, and an over-idealization of the properly informed citizen contribute towards questioning their continuing pertinence.

We have reached the point at which the public sphere concept needs to be used more circumspectly. It carries with it too much baggage, not least implying the existence of a unified information sphere where citizens converge, reflect on the basis of reliable and shared information, and work towards well-reasoned policies. Better to conceive of somewhat messy, even chaotic, informational domains we now have from globalization, transnationalism and especially the internet. These offer public spaces for diverse producers and audiences and, given the right set of circumstances, these can be of public consequence. Efforts to depict these as some twenty-first-century reinvigoration of the public sphere seem futile since they lack unity, shared audiences and even longevity.

Yet one pulls back from entirely rejecting the term, because we cannot do without some notion of the public sphere so long as we inhabit nation states that are the major organizing units of democratic life. Democracy must have some means of making decisions in the interests of its citizens if it is to function effectively, and to do this there must be a broadly level playing field for participants. Public service institutions contribute to this by providing reliable information that is independent of the market and of undue political influence. However, the public sphere, while it undeniably draws on the outputs of public service institutions, needs to be delineated so it is not regarded as synonymous with these organizations.

A requisite of this is that we reassert the distinction between civil society and the political domain, against a promiscuous tendency to grace all and sundry with public sphere terminology – hence the 'cultural public sphere' (McGuigan, 2005) and even the 'emotional public sphere' (Lunt and Stenner, 2005) that some claim to recognize in the produce of daytime talk shows. Stretching the term public sphere to include such diverse content, such that pretty well any information in the public domain becomes liable to be incorporated into the category with the aid of a prefix, is unhelpful because it comes all-encompassing and unwieldy. By the same token, we need to beware of conceiving of a profusion of 'multiple public spheres' since some spaces are much more consequential than others. To the good-hearted it is cheering that sites have become available where the

ignored and abused might find a voice and even mutual support, but we need to remember that the agencies of formal politics remain primary in making changes.

A more focused conception of the public sphere might allow for the retention of the *political public sphere*. After all, this is where democracies collectively decide upon their priorities and future directions, through electoral processes and debate and discussion in democratic institutions. Aeron Davis (2010) insists correctly that, in Britain, Parliament is ‘the most significant public sphere’ (p. 18).

It is unpalatable that commercial interests might be encouraged to distort relationships here, though it is easy enough to demonstrate that these forces do intervene and work assiduously to exercise influence. Accordingly, it is appropriate that measures be taken to rebalance the information environment of the political public sphere by state support of public service institutions, as well as perhaps by subsidy of political campaigns, by legislating for rights of appearance by political parties in the media, by restricting the concentration of television and newspaper ownership, by insisting that media misrepresentation is open to challenge by independent regulators, and by support for public services that have a remit for impartiality and objectivity. The polity remains the central institution of democratic societies, and citizens must be allowed to participate in and discover what is being done in their name without excessive commercial interference and distortion. It is here that the case for a political public sphere remains compelling.

Notes

- 1 <http://news.bbc.co.uk/1/hi/entertainment/showbiz/3237607.stm>.
- 2 <http://news.bbc.co.uk/1/hi/uk/2345355.stm>.
- 3 For example, the BBC reported in February 2003 a leaked intelligence services report finding there was no co-operation between Saddam and Al Qaeda. See <http://news.bbc.co.uk/1/hi/uk/2727471.stm>. From the USA a great deal of information confirms this finding. See, for example, *The 9/11 Commission Report* (2004), especially ch. 2.
- 4 In October 2002 President George W. Bush asserted that ‘the threat from Iraq stands alone – because it gathers the most serious dangers of our age in one place. Iraq’s weapons of mass destruction are controlled by a murderous tyrant’, continuing to claim that ‘We know that Iraq and al Qaeda have had high-level contacts that go back a decade . . . Iraq could decide on any given day to provide a biological or chemical weapon to a terrorist group or individual terrorists. Alliance with terrorists could allow the Iraqi regime to attack America without leaving any fingerprints’ (White House, 2002). This contrasts with a Presidential Daily Briefing President Bush received days after 9/11 from his intelligence agencies, on 21 September 2001, that told him there was no co-operation between Saddam and Al Qaeda (Waas, 2005).
- 5 This does not mean that it is the answer to problems of development.
- 6 <http://news.bbc.co.uk/1/hi/world/europe/6135406.stm>; <http://news.bbc.co.uk/1/hi/world/europe/6170749.stm>.
- 7 Michael Grade (2004), a major figure in British television since the 1970s, having been Chairman and Chief Executive of both the BBC and ITV, recollected that when he was head of Channel 4 he was fond of saying that ‘It’s the BBC that keeps us honest’, continuing to observe that ‘in public service terms it was hard to distinguish the BBC from its private sector competition’. In the same speech, however, he warned that ‘as commercial competition continues to intensify, and commoditization continues apace’,

television should be on its guard since, 'in the process, large areas of viewers' interests are ignored'.

- 8 Scannell (1989) adroitly observes: 'I prefer to characterise the impact of broadcasting as enhancing the reasonable, as distinct from the rational, character of daily life in public and private contexts. In this context, reasonable has the force of mutually accountable behaviour; that is, if called upon, individuals can offer reasons and accounts for what they have said or done' (p. 160).
- 9 Consider Reith's 'final word' (sic) about the 'old company': 'we realised in the stewardship vested in us the responsibility of contributing consistently and cumulatively to the intellectual and moral happiness of the community. We have broadcast systematically and increasingly good music; we have developed educational courses for school children and for adults; we have broadcast the Christian religion and tried to reflect that spirit of commonsense Christian ethics which we believe to be a necessary component of citizenship and culture. We have endeavoured to exclude anything that might, directly or indirectly, be harmful . . . We have tried to found a tradition of public service, and to dedicate the service of broadcasting to the service of humanity in its fullest sense' (Reith, 1949, p. 116).
- 10 Namely, the Bodleian Library (Oxford), Cambridge University Library, the National Libraries of Scotland and Wales, and the Library of Trinity College, Dublin.
- 11 See 'Wikipedia Survives Research Test', *BBC News*, 15 December 2005. Available at <http://news.bbc.co.uk/1/hi/technology/4530930.stm>. This does not mean that Wikipedia is beyond reproach. Entries manifest noticeable cultural and historical biases, such that the entry for David Beckham, the fine English soccer player, far exceeds that of poets Robert Frost and Seamus Heaney. Wikipedia's overwhelmingly male contributors have also been shown to reflect gender biases in what they write, about whom they write and whom they most value (Gleick, 2013).

Information and democracy 2: Friedrich von Hayek and the neo-Hayekians

Introduction

Chapter 9 examined the views of those who concede that we have undergone an information explosion, even that we now inhabit an Information Society, but who are sceptical about what it all amounts to. This bountiful information, they believe, is frequently misleading, is advanced for ulterior motives and can be propagandistic. Such accounts connect information to the health of democracy, the singularly acceptable form of governance today. As we have seen, the core argument is that the informational needs of a democratic society are not being met by the market system and, this being so, states must intervene to make up the shortfall. During the latter part of the twentieth century this way of seeing took up Jürgen Habermas's conception of the public sphere to justify government involvement and expenditure, arguing that public service principles – at odds with market arrangements – were integral to the formation of a public sphere and thus to democracy itself. I have discussed reasons why this fusion of public service, public sphere and democracy has been less than wholly successful (these have ranged from changing conceptions of democracy that lay emphasis on diversity, to evidence that established elites tended to dominate public service institutions).

In this chapter I continue the theme of the connections between information and democracy, though from a markedly different point of view, towards which I shall look through a wide lens so we may better appreciate its perspective. Here we will encounter ideas that acknowledge that information is vital to how we live, even to democracy itself (though preferred terms are often liberty and freedom), but these positions do not ascribe inadequacies of information to the market's distorting effects. On the contrary, they start from the premises that the market is well capable of satisfying the information requirements of the populace and that, moreover, capitalism is itself an information system that works best when left to its own devices.

The major thinker here is Friedrich von Hayek (1899–1992), whose influence on policy came only late in life, driven by the ascendancy of the administrations of Margaret Thatcher in Britain (1979–91) and Ronald Reagan in the United States (1981–9). Until then Hayek had been a marginal figure even inside the universities where he spent most of his life. An Austrian by birth, he had worked at the London School of Economics (LSE) and the University of Chicago without much

consequence. At the LSE (1931–50), though respected, he was somewhat isolated in an institution the outlook of which was more in keeping with that of Harold Laski and R.H. Tawney, contemporaries and highly influential socialists (Dahrendorf, 1995). When Hayek moved to Chicago (1950–62) there was more affinity with his free market ideas from such as Milton Friedman, but location in a separate department and the quantitative emphases of the economists there meant Hayek's philosophical orientation was underappreciated. As a student at the LSE in the mid-1970s I can attest to Hayek's neglect. We all read his contemporary and fellow countryman Karl Popper and were familiar with the illustrious history of the School, but rarely did one come across the name of Hayek, though he had been awarded the Nobel Prize in Economics in 1974.

Margaret Thatcher vigorously championed the pro-market views of Hayek when she became Conservative Party leader early in 1975. Right-wing think tanks, notably the Institute for Economic Affairs and the Centre for Policy Studies, played a large part in promoting Hayekian ideas (Cockett, 1994), but electoral victory for Thatcher in 1979 was at once due recognition and a fillip for a thinker who championed the market and opposed state interference. Thatcher's policies of deregulation (removing or reducing government rules), privatization of national holdings (from council housing to the postal service) and liberalization (stimulating competition) expressed the emergent neo-liberalism that is at the heart of Hayekian thought (Jones, 2012).

It scarcely needs adding that enthusiasts for capitalism have found their voices in recent decades. Little more than a generation ago most such commentators were rarely explicit about it, drawing on euphemisms such as 'modernity' and 'advanced industrialism' in discussing the contemporary world, and leaving it to Marxists to hang on to what was regarded as the outdated lexicon of capitalism, profit and private ownership. Nowadays, though there is palpable dissatisfaction with the worst financial crisis in a lifetime, the inability to offer feasible alternative visions merely accentuates the force of Margaret Thatcher's triumphant acronym TINA (*There Is No Alternative* to the market). Hence Michael Wolf (2012) reviews 'capitalism in crisis' (sic), yet assuredly concludes that 'It may be "in crisis" right now. But it is still among humanity's most brilliant inventions. It is the basis for the prosperity that so many now enjoy and far more aspire to' (p. 9). There is disquiet about growing social inequalities, particularly between the top (the '1 per cent') and bottom of society, yet pro-capitalist mouthpieces trumpet its virtues and hymn the 'risk takers' and 'entrepreneurs' (Meltzer, 2012). Among the boldest some lay claim to capitalism being the progenitor and sustainer of democracy itself. Thus Michael Mandelbaum:

The key to establishing a working democracy, and in particular the institutions of liberty, has been the free-market economy. The institutions, skills, and values needed to operate a free-market economy are those that, in the political sphere, constitute democracy. Democracy spreads through the workings of the market when people apply the habits and procedures they are already carrying out in one sector of social life (the economy) to another one (the political arena). The market is to democracy what a grain of sand is to an oyster's pearl: the core around which it forms.

(Mandelbaum, 2007a)

It is this assurance of pro-capitalist analysts that underlines embarrassment I feel at my own neglect of them in previous editions of this book and calls for attention in this chapter.

At the outset it is worth observing that the thinkers encountered in Chapter 9 tend to understate Habermas's *historical* account of the emergence of the public sphere. In his book Habermas (1989 [1962]) argued that capitalism constructed the *bourgeois public sphere* and, moreover, that this was as far as the public sphere advanced before the spread of monopoly capital in the twentieth century brought about its denudation. The importance of capitalism for the formation of the public sphere is underestimated by those who now start from an idealization of the public sphere that is regarded as antipathetic to the market and, they contend, finds expression in public service institutions.

Reminding ourselves of the capability of capitalism to build a 'bourgeois public sphere', this chapter sets out to reassess the role of the market with regard to information and democracy. More specifically, it will do three things:

- It will review the critique presented by pro-market analyses of inadequacies of state involvement in general and in the informational domain in particular, thereby providing a riposte to positions reviewed in Chapter 9.
- It will examine and engage the pro-market argument that, while capitalism may not produce a fully formed public sphere, it is capable of meeting the informational needs of people when left to its own devices. Indeed, capitalism can be presented as an information system that is, in key respects, inherently democratic.
- It will then discuss another pro-market view that suggests that concern for information in democracies is misplaced. This position contends that capitalism is crucial for liberal democracy, but that an information infrastructure – especially one subsidized by the state – is *not* necessary for democracy's functioning.

In short, this chapter will discuss thinkers who are opposed to notions of the public sphere where they do not find the conception irrelevant. For such as Hayek capitalism allows liberty while providing an informational environment that harmonizes individual need and productive activity. From this point of view, endeavours to establish a public sphere other than by leaving things to the market are futile, if not positively damaging. After Hayek we will encounter a leading neo-conservative American thinker, Francis Fukuyama (1952–), who contends that, while capitalism is necessary for democracy to flourish, there is no need to waste resources on bolstering democracy with information on the rates, albeit that the Information Society brings challenges to social order.

Failings of state intervention

We may start with the negative criticisms from pro-market writers that are aimed at proponents of state intervention in general. The main charge is that it demonstrates a record of failure that is sufficient to warn against it being tried in the first place.

Highlighting such failure represents an assault that reaches well beyond matters of information, revealing repeated shortcomings of collectivist measures across economic, political and social domains. Whether it is the terrors of the Gulag in the 1930s or the horrors of Pol Pot's genocidal Cambodia in the 1980s, the failure of the Soviet Union (1979–91) to match the production of Western capitalism or to allow democratic participation of its peoples, or simply the ineptitude of state-run services, market supporters are scathing about the capabilities of state intervention. To be sure, they do not equate the evils of China's Cultural Revolution with the relatively benign nationalizations of Britain's post-war Labour government led by Clement Attlee. At root, however, there is the conviction that advocacy of the 'all-knowing state' will end badly, whether this is carried out by ruthless Bolsheviks or by well-meaning Fabians blind to the perverse consequences of their efforts at reform (Hirschman, 1991).

Pro-market authors do not deny that capitalism also has its faults – there are booms and slumps and there are inequalities of reward – but they do insist that the alternative is immeasurably worse. This holds true even in the present era, when a failure of the banking system worldwide late in 2008 has impelled states to provide such measures of support from public funds that much of the previously private system has been *de facto* nationalized (though consequences in terms of banking practices are as yet unclear). Nonetheless, even the hapless condition of contemporary capitalism appears benign when set against the sorry record of collectivism, which has been tested in the cauldron of history and found wanting.

Over the years, capitalism has manifested an extraordinary capacity to deliver economic expansion, making it far and away the most successful form of industrialism (Berger, 1982). One can concede that when it comes to heavy industrial and infrastructural projects such as shipbuilding and the construction of roads and railways state-directed policies once could compare favourably with what the market could deliver, notably during immediate post-war reconstruction and the Depression of the 1930s (cf. Galbraith, 1967). However, over the last half-century the inefficiencies and inadequacies of collectivism have been laid bare, notably when it comes to supply of consumer goods and services. During these 'golden years' (Hobsbawm, 1994) the market system delivered an unprecedented expansion in terms of standards of living. Thus in the *trente glorieuses* that ran from 1945 to 1975, television, indoor plumbing, washing machines, refrigerators and fashionable clothing became available to ordinary people in the West – while their counterparts under Communism lagged behind (Wasserstein, 2007). Living standards in Western Europe have increased by around 300 per cent in real terms over the past half-century (Crouch 1999), far outstripping advances under any collectivist system.

The Soviet Union and its satellites crumbled around 1990. The failure of these state-dominated regimes to shift emphasis away from heavy industry and top-down production targets meant that they were incapable of adjusting to an era that was globalized, commercialized and concerned to meet as well as stimulate the desires of people for consumer goods and services (Mazower, 1998, ch. 11). Francis Fukuyama (1992) announced it as climactic: when 'Marxism-Leninism as an economic system met its Waterloo' because it was incapable of meeting 'the requirements of the information age' (p. 93). This new epoch is inextricably connected

to accelerated innovation, heightened cosmopolitanism and intensified globalization, where appeals to the preferences of consumers are vital and clunky decision-making is inappropriate. Fukuyama's dictum, that Communism's collapse represented the 'victory of the vcr' (video cassette recorder – now pointedly outdated and outperformed by still more advanced consumer technologies such as the iPhone and iPad) encapsulates his argument that capitalism's supremacy comes through the capacity to provide consumers with just the exciting innovations they need.

It can be objected that we need to differentiate between the state control of Communist totalitarianism and the milder forms of state intervention of Social Democracy. We should conceive here a continuum stretching between out-and-out free market capitalism and Communist regimes that were (and remain so only in enclaves like North Korea) systemic in their hold. In the ruck of history, few situations are to be found at the extreme edges of this continuum, though where people find themselves along this line is of utmost consequence. Nevertheless, at this stage of our analysis it is important to acknowledge the criticism of those whose regard all endeavours at and towards state direction of life as a slippery slope towards 'the road to serfdom' (Hayek, 1944). As we shall see as this chapter progresses, the decision to intervene by the state has serious implications for how society functions, often in ways that are antipathetic to the intentions of those who initiated and encouraged state involvement.

Liberty

Meanwhile, we may stay with the more general criticism of collectivism that emanates from pro-market thinkers since it allows us to gain a fuller understanding of their position as regards information. Such thinkers are sceptical of state intervention because they regard government interference as a threat to liberty. Such intervention, they suggest, frequently begins with economic affairs, but it can extend thereafter deeper into social and political matters, with deleterious consequences.

Pro-market observers are not necessarily celebrating the grosser instances of inequality that one finds in many capitalist societies. However, they do counsel against the exclusive concern for inequalities that is characteristic of many anti-capitalist thinkers, who generally follow expressions of unease about such disparities with recommendations that the state acts to palliate them. Readers will be familiar with such reasoning that identifies, for instance, worrying levels of child poverty or limited opportunities for social mobility that go hand in hand with low levels of income, and then follows such diagnoses with advocacy of government schemes to better resource welfare or education to rectify the identified disadvantages.

The suggestion from proponents of the market is that concern for inequality can become obsessive, leading to an under-appreciation of freedoms that are of inestimable importance to how we live now. For instance, freedom of movement, due process in law, free speech and assembly, universal suffrage and, more generally, the right to do one's own thing unencumbered by officialdom are distinguishing features of life in a liberal democracy. These are relatively new characteristics in historical terms, yet their contribution to the quality of day-to-day life ought not to be underestimated.

Enthusiasts for the market are quick to point out that excessive concern with economic divisions and resultant government actions to overcome these inequalities can lead to intrusion on some of these freedoms. For instance, taxing the wealth of some groups of people in order to fund efforts to redistribute resources to underprivileged sections or placing restrictions on access to particular schools in pursuit of increasing equal opportunities for disadvantaged groups intrudes on the rights of some to spend their earnings as they decide or to send their children to schools of their choosing. Bluntly, because a concern to eliminate economic inequalities can lead to restrictions on the freedoms and liberties of others, pro-market thinkers often remain unpersuaded by, and quizzical of, policies that would have government intervene to change things.

There is an echo here of Isaiah Berlin's (1969) celebrated distinction between *positive* and *negative* freedom, between those who start from a concern with 'freedom from' wants, such that the state is to be urged to support those without shelter, resources and employment, and those whose priority is 'freedom to', so people may be allowed to make their own decisions about how to make their way in life uninterrupted by government edict. It is not hard to comprehend, at least in terms of principle, that there are clashes here between those who recommend government intervention and those who believe that the state is best serving its citizens when it leaves matters alone. Those who embrace the latter edict proclaim that 'freedom to' is most prevalent in market societies.

In addition, those sceptical of state intervention aimed at rectifying inequalities point out that many core values and aspirations are incommensurate with one another. One such is the goal that would have us reduce or even eliminate injustices of class differentiation, but there are other values and hopes that remain vital though they may be incommensurate with the ambition to remove barriers of inequality. One thinks, for instance, of the value of love of one's family, loyalty to one's friends or of the freedom to spend one's money as one would wish. Such values, laudable in themselves, may well lead to conflict with ideals of equality. Should a parent, for example, advantage her children by providing an exceptionally supportive and nurturing home, or should fidelity to one's friends lead one to help them gain an advantage in the workplace, or should a grandparent decide to provide a privileged education for a beloved grandchild, this brings potential conflict with a commitment to eliminating unequal opportunities in life, though the values each expresses may, in themselves, be widely admired. The fact is that these values stand in conflict one with another. This incommensurability of values encourages caution among those who are wary of state intervention in social affairs, especially since the latter so frequently stems from the goal of eliminating inequalities over all else. Government action to rectify inequalities can then have unintended consequences such as reducing the liberties of others. This being so, pro-market devotees are generally disposed towards the belief that people should be left alone by the state since they are more free to make their own decisions and fulfil their own dreams when unhindered by interfering governments.

Then there is the related criticism of those whose identification of shortcomings in the here and now leads them to propose untried solutions under the direction of the state. Pro-market thinkers, as with conservatives more generally, urge

caution before such leaps in the dark. Indubitably there are injustices and imperfections in the here and now, as there were in the past, but untried plans presented as solutions are perilous and should be set against the known historical record of steady progress in standards of living, health and widening opportunities made within capitalism. What we have may be unsatisfactory, runs this objection, but we must beware destroying what we lack full knowledge to replace (Scruton, 1986).

Furthermore, how often have utopian plans, when implemented by the state, proved to have unanticipated, unintended or unwanted consequences? To the forefront of pro-marketers' attention here have been failings of the Welfare State, conceived and introduced as a grand scheme whereby citizens would be protected and sustained 'from cradle to the grave' (Segalman and Marsland, 1989). The welfare system has been developed, one may recall, because of demonstrable failings of capitalism to provide adequate housing and health to working-class people (until the late twentieth century the overriding majority of the populace of Britain), because markets had proven to be unstable and incapable of ensuring the livelihoods of large numbers of citizens, and because it had not seemed possible to eradicate poverty within a *laissez-faire* order. Nonetheless, decades after the introduction of welfare provision, market-oriented thinkers were drawn to observe manifest problems such as the persistence of poverty and even the Welfare State's creation of an 'underclass' of welfare dependants, perverse consequences of state housing schemes such as resentment of rules and regulations and tenants not wishing to occupy municipal properties (Saunders, 1990), and the spread of officialdom and inefficiencies in the administration of state-funded schemes (Murray, 1984, 1989; Douglas, 1989). As Nathan Glazer (1988) glumly declared, state-led 'efforts to deal with distress are themselves increasing distress' (p. 5). The market system undoubtedly had its problems, but it hard to deny that state involvement has been no cure-all and that it has even brought some renewed difficulties as well as failing to overcome entrenched problems.

Public libraries and universities

The foregoing is applicable to more than the informational domain, so let us illustrate the case with a couple of examples. As discussed in Chapter 9, public libraries are found in most sizeable habitations in the United Kingdom. Borrowing of books and associated materials is free to users, as is membership, a privilege taken up by a majority of citizens. For much of the twentieth century there can be little doubt that these institutions, chiefly if not solely supported from the public purse, were justified in the main on grounds that everyone ought to have a right of access to information free at the point of delivery and irrespective of the individual's circumstances. Access to information was conceived as a right of everyone, whether for personal enjoyment, education or enlightenment. This justification for the library network was supported by insistence that information was a public good, not something to be regarded as subject to the vagaries of market pricing for individual purposes, since an informed population made for a healthier society and democracy. Those who advocated public libraries were particularly keen that

poverty should not be a reason for the ignorance that inexorably followed being shut off from a world of books and reading. The premise was that were information left to the market, poorer sectors of society would be excluded because they could not afford subscription fees. At the same time, it was proposed that by making libraries accessible to everyone the information offered would bring benefits not only to individuals but also to the wider society since it would benefit from having a readily informed and even learned populace.

Testimonies to this outlook are readily found, whether in the earnest school-child doing homework in the reading room of the library, the autodidact studying the classics or the fledgling politician coming from the wrong side of the tracks and preparing materials to advance his standing in debate. Booker Prize-winning novelist John Banville, for instance, voiced a common sentiment when, in 2009, he reminisced that 'growing up in a small town in Ireland in the 1950s, the local county library was for me both a haven from the bleak realities of the time, and an opening on to a wider and richer reality' (*Guardian*, 3 April 2009, p. 17). The magnificently eloquent leader of the Upper Clyde Shipbuilders Work-In of the early 1970s, Jimmy Reid (1932–2010), soon to serve as Rector of Glasgow University though he had left school at the age of 14, when asked on television where he had received his education, replied baldly, 'Govan Public Library.'¹ Jeanette Winterson, author of the splendid autobiographical novel *Oranges Are Not the Only Fruit* (1985), looks back on her troubled upbringing in the North West town of Accrington as an adoptee by Pentecostal parents. She was a 'rough, tough kid', her unhappy home had but six books and Jeanette was 'not much good at school', yet she 'had the [public] library that was built for the working classes . . . built for me' (Winterson, 2012, p. 6), where she spent long days that took her to Oxford University and rapid success as a writer and television dramatist. And Richard Hoggart (1988), one of Britain's most influential intellectuals and a university vice-chancellor, though he was orphaned young and reared by his working-class grandparents, reflected that the public 'library was a home from home for people like me', adding that 'a great many people from poor backgrounds have paid tribute to the place of public libraries in their unofficial education. For many people what the public libraries gave was as near as they had come until then to a revelation of the possible size and depth and variety of life, knowledge and understanding' (p. 173).

There are fine sentiments in evidence here as well as inspiring instances of responses to unpropitious circumstances. Books, and especially reference materials, were once prohibitively expensive and therefore out of the reach of most working-class families,² so public libraries could provide a ready solution to this exclusion. However, state involvement has not worked out as many of its advocates have envisaged. For a start, public libraries have been 'captured' by the better-off sections of society as well as by the professional staff who operate them (Adam Smith Institute, 1986). Thus it is the educated middle classes who can well afford to buy information themselves who are the most active users of the public library, in effect getting a public subsidy for their reading habits from those who pay taxes but do not personally use the libraries that are funded from the public purse (less than four in ten working-class adults visited a public library in 2005–6, compared to more than half of the higher classes [*Social Trends*, 2008, p. 181]).

Moreover, library staff have benefited disproportionately from the establishment of these services, being provided with secure and pleasant (if not lavishly remunerated) employment. Indeed, a large proportion of public library revenue is expended on staff salaries, with less than 10 per cent of their budget going on book purchases. Further, public libraries are book-lending monopolies, their creation having put out of business the subscription libraries since, while cheap at a few old pennies per loan (their sobriquet was the *Tuppenny Library*), these could not compete with an entirely free lending service. Moreover, secure public library staff also determine what will be stocked in the absence of market signals from customers, so it is their tastes and dispositions, succoured by high-level education to at least first degree levels of attainment, which prevails when it comes to deciding on what will be appropriate reading for the wider public. From this perspective one may regard librarians as in effect censors of materials that are to be made available to readers.

Furthermore, the overwhelming majority of loans from public libraries are accounted for by light fiction and biographies. Why, one might ask, does the public purse need to support the likes of Agatha Christie and Jeremy Clarkson when their books are readily available for cheap purchase and their literary merit, still more their intellectual and uplifting qualities, are at best of minor significance? It is surely hard to defend making available pulp literature – fiction and non-fiction alike – on the rates in this way.

Such observations raise questions regarding the efficacy with which public libraries actually operate. It follows that a driving force behind their establishment and continued state support, the appeal to mitigate the inequalities of capitalism in the informational domain, seems to have been less than fully effective.

Moreover, a case can be made that the market system itself has managed to respond effectively to the needs of the public by, for instance, nurturing the ‘paperback revolution’ that was pioneered by Allen Lane at Penguin in the middle of the last century and has made books affordable to just about anyone with an interest in a given subject. By 2006 British households were spending much the same proportion of their income on books, magazines and newspapers as fifty years previously – around 2 per cent of total budget – yet with that investment they got a great deal more reading materials (National Statistics, 2008). Again, it has been entrepreneurial and innovative book stores such as Waterstone’s (established in 1982) and Borders (founded in the United States in the early 1970s, opening in Britain in 1998 and then bankrupted in 2009 – such is the dynamism of the market) that have spearheaded moves to make book services more appealing to the customer, by attractive price deals, considerate and considered display of goods, sensitive design of ambience, comfortable seating and attractive complementary services such as tea and coffee as standard.

Further, online book services, most famously Amazon (founded as recently as 1995) but now routinely offered by all major booksellers, have developed apace, being capable of bringing almost any book – new or used – and associated products to customers within a few days since they manifest the ‘long tail’ of huge stocks that can answer the most recondite and specialist query. In addition, Amazon has pioneered innovations such as facilities to offer an online review of a work, to search inside a book prior to purchase and to nudge prospective customers

with recommendations based on individuated records of previous buys. An ambitious project led by Google to digitize millions of volumes from library stocks promises to make available to anyone with an internet connection all out of copyright materials. As this service evolves, so does the concept of the 'virtual library' become real, and with its emergence there comes about the prospect of there being no further need for the bricks and mortar library of today. Hard-pressed local authorities, long concerned about the costs of library services that must be met from their restricted budgets, may then be able to divest themselves of responsibility altogether and even cash in on sales of real estate located in prime sites.

The public library idea and practice look somewhat dim when set alongside these observations. Add the familiar 'library silence', the intimidating ambience, the limited and often tatty stock and set it against the customer-oriented and customer-sensitive marketers of information today and the public library looks dowdy and dated.

We can find another example in higher education, an archetypal information locale. In Britain universities are chiefly publicly funded organizations, there being only two or three privately operated ones out of the over one hundred institutions. However, though private universities are rare in Europe, it is important to acknowledge that no one could claim that reputable universities are limited to those that are state funded, since in the United States there are many distinguished private (if not for profit) universities such as Stanford, Harvard, Princeton, Duke, Massachusetts Institute of Technology and Columbia. These occupy the apex of American higher education, so private universities *per se* do not mean that quality diminishes.

There are various reasons for the establishment of universities and why states generally offer them financial and other support. An especially important one is the role higher education plays in social mobility. The ideology of meritocracy – the combination of ability plus effort – is a vital one here, since a widespread claim is that the most meritorious young people should be able to enter university and emerge with the credentials that legitimate their subsequent occupancy of leading positions in society. Barriers that restrict those with merit are to be abhorred, whether these are of gender bias or racial discrimination, religious tests or of economic deprivation that exclude people of talent and commitment from gaining places at institutions of higher education. Changes in legislation have played a part in removing obstacles to university entry for the most talented, but more material state support has long been justified as an aid to ensuring the most meritocratic selection possible. This is why in Britain, until a generation ago, once a student had gained a university place tuition fees were paid by government and non-refundable allowances for maintenance (board and lodging etc.) were distributed on a sliding scale depending on parental income, with families of students from working-class homes contributing little or nothing. Being poor by origin was not to be a hindrance to playing a full role in the university, so due allowance was made for maintenance, and indeed no students at all would be called upon to contribute to teaching costs.

A major problem, however, was that, while this system removed formal barriers for talented working-class children, very few from such backgrounds actually entered higher education. Moreover, because of the generous state subsidy for

university education that prevailed, the UK could afford to support relatively few places. Britain offered, until the 1980s, what has been termed an elite system of higher education, making available university places for approximately 10 per cent of the age group, compared with the 30 per cent and higher participation rates in countries like Canada, Australia and the United States. This arrangement in the United Kingdom was fine for those who made it to university, since once there they were well catered for courtesy of the state's relatively munificent grant aid. However, in terms of the meritocratic ideal there was a massive disappointment in that those few university places – even after the much heralded expansion of universities in the 1960s that edged participation rates into double digit percentages – were taken overwhelmingly by the children of the professional middle class. However hard apologists tried, this middle-class predominance in Britain's universities could not satisfactorily be accounted for in meritocratic terms (Halsey *et al.*, 1980; Goldthorpe, 1987).

A response to this was the accelerated expansion of British higher education during and after the 1980s, such that today over one in three 18-year-olds move on from school or college to university. Over a thirty-year period student numbers grew 400 per cent, from around 600,000 to 2.5 million. There are many ways in which this has been made possible, but a vital element has been acknowledgement that state support would need in future to be restricted since government could not fund such a radical transformation of the university scene. Accordingly, maintenance grants have been replaced by a scheme of student loans that are repayable once the graduate begins to earn over a minimum threshold, and tuition fees have been made largely the responsibility of the student. Though there remains a subsidy towards teaching costs, there has come about a decisive shift away from higher education as something the state supplies towards regarding the student as a 'customer' who is called upon to make an 'investment' in their education much as someone might do in taking out a mortgage on a house or negotiating a loan from the bank to pay for a new car. The reasoning is that this transformation injects resources to fund the expansion of the university system while recognizing that, as beneficiaries of higher education that translates into higher earning capacity in later life, students should be prepared to carry the costs of this process.

An advantage of this transformation, it was believed, was not only that more students could be accommodated in universities, but also that a dependency outlook prevalent among students would be challenged and changed. For too long, it was charged, it had been supposed that, because the state picked up the bill, many students were less serious about their studies than they might have been. This entitlement assumption, a supposition that one had 'rights' to a university place so long as the requisite A-levels had been passed, also encouraged a passive acceptance among students of whatever courses and teaching they were offered. Now compelled to pay for themselves, the suggestion is that students will be more diligent as regards their own academic efforts, more willing to criticize what they are offered (student feedback returns on teaching and much more now occupy the attention of university authorities) and better prepared to think through the consequences of the courses they opt to take in terms of career opportunities.

There can be little doubt that this has been consequential, with today's students more instrumental in their outlook towards assessment and reading, more concerned about the employability returns of their qualifications and more consumer oriented than previously (in turn, universities now routinely takes measures of 'customer satisfaction' from students). The effects on curricula are also manifest, most obviously with the heightened demand for programmes in Business and Management and diminishing calls for subjects such as Philosophy, Anthropology and Classics (outside the most elite institutions, where attendance alone bestows prestige that outweighs even the most vocationally relevant qualification). As recently as the 1970s scarcely anyone in Britain studied business, but now it is the most popular area of study and accounts for one in eight students (and 16 per cent of male students) in the universities.³

Such developments represent a part-marketization of British higher education. To date universities are not allowed by government to charge prices for undergraduate tuition that cover full costs, still less that respond unhindered to market demand and generate surpluses, as is the case with postgraduate education, where overseas students yield substantial excess. Not unconnected, British universities remain decidedly unmeritocratic institutions. While the so-called 'new universities' that were brought into being in 1992 simply by retitling polytechnics have admitted many more from the working class and disadvantaged ethnic minorities, the highest ranked universities have found it difficult to expand the social basis of their entrants, the most prestigious universities still recruiting between one-third and one-half of their students from the private schools that cater for less than 10 per cent of the age group. These schools have demonstrated a remarkable ability to produce students with exceptionally high scores at A-level, thereby gaining disproportionate numbers of places at the most sought after universities, though few scholars would contend that these results represent more than the advantages of small teaching groups, devoted attention, aspirational peers, attentive parenting and cognate expressions of economic and cultural capital. An outcome has been a reassertion of the established reputational hierarchy within British universities, with the qualifications awarded to those at or near the top carrying more weight with employers and the wider public than those situated further down the scale.

It is at least debatable that more thoroughgoing marketization, perhaps by removing the cap imposed on tuition fees and allowing differential charging among candidates depending on subject and home circumstances, could enable universities to improve performance with regard to meritocratic ideals. More radical still, one might envisage opening up existing universities to competition from established foreign institutions. A franchised or distance-learning degree offered by, say, Harvard or Berkeley could appeal to many students, come at a reduced price and help overturn prejudices that sustain current hierarchies. The University of Phoenix, established as a commercial organization in the late 1970s, even bypasses franchises in setting up its online programmes. It operates on a scale that makes traditional universities appear tiny (it has over half a million students). Though Phoenix retains some access to tutors, its business model centres round online materials and market appeal, meaning it is cheaper than orthodox schools

and its curriculum is limited to content that is in demand. More than this, computer communications technologies make possible MOOCs (massive open online courses) that mean, in principle, anyone could sign up for modules wherever they are delivered. Already socially conscious scholars, usually academic stars, make available their contributions in this way. The private sector sees an opportunity here and companies such as edX and Udacity are grasping the opportunity, through the profit motive, to bring higher education to whoever is interested, wherever they are. Their prices will be cheaper than those asked by established universities and, at least potentially, such students will be able to experience the best that the great universities have to offer. As a means of addressing demonstrable problems of state-supported higher education, marketization has just begun (cf. Ritzer, 1998; Tuchman, 2009).

Capitalism as an information system: the role for the market

The foregoing has been concerned chiefly with the negative views of pro-market thinkers when they examine the role of government. It is not difficult to pick holes in the efforts of the state when it comes to the record of its interventions in the informational (and other) realms of life. In contrast, in this section we will examine some of the ideas that stem from the writing of Friedrich von Hayek to look more closely at a more positive analysis of the relation between capitalism and information.

A starting point of this approach is that, while markets are imperfect, still they offer the best available means of ensuring that people's needs are satisfactorily met. This is argued on at least two grounds. The first is that, if not actioned by the market, decisions as regards needs must be taken by those who occupy positions wherein which they are capable of deciding for others. State agencies are frequently to the fore here, where accredited or presumed experts of one sort or another decide what others require or will be allowed to have. There is a wide range of institutions that undertake this in any society like Britain, from government ministries to quangos (quasi-autonomous non-governmental organizations), of which there are currently over seven hundred. Their existence presupposes that elites or otherwise superior groups are better informed about people's requirements than they are themselves. Accordingly, where the market is not permitted to operate, various planners, experts or distinguished others are left to determine what will be made available to the rest of us. Most of us are familiar enough with these sorts of situation, for example where credentialized educationalists or medical personnel assume the right to tell how and what one's children should be taught or what one ought to eat to maximize one's health. The objection is that these people are acting presumptuously, arrogating the right to organize the lives of the rest of us. Such actors are frequently, but not solely, employees of government and they encourage the spread of a 'nanny state' in which responsibilities for oneself are removed and placed in the hands of the allegedly better informed. Their presence across many domains leads to the domination of most of us by elites of one sort or another, whether in arts, news reporting or political affairs. The university-educated, metropolitan professionals assume the right to tell the rest of us what to think and how even to live our lives.

There is a related observation to make here. While pro-marketers stress that where market mechanisms are not available in order to fulfil people's needs, state-accredited personnel tend to fill the void, more left-wing accounts contend that corporate employees manipulate people's needs in order to persuade them to purchase what their company offers. There is a plethora of writing in this mode (e.g. Galbraith 1958; Packard 1957; Ewen 1976), where 'mind managers' such as advertisers, copywriters and PR staff are alleged to work assiduously to manipulate the public to desire things which, without the alluring imagery and associations guilefully inserted, people would never want. The essence of this argument is that ordinary people are actively misinformed about their needs, the better to persuade them to consume whatever is being put up for sale.

Both these anti-state and anti-corporate positions assume a *deficit model* as regards ordinary people, the former that they lack expertise enough to decide for themselves, the latter that they are so bereft of self-knowledge and scepticism as to be susceptible to the blandishments of the advertising industry and its associates. On one view people abrogate responsibility to experts, on the other they are duped by clever manipulators. Both positions also share the view that people's needs cannot be made clear directly by people, hence experts must intercede, deciding on their behalf or leading them to accept artificially imposed needs. There must, in short, be mediators who express and define people's needs since the latter are incapable of doing this for themselves.

An example will help clarify this situation. Take the expansion of the business of toiletries over the past twenty years or so. The rise of specialist outlets such as the Body Shop and Lush and the more general growth of soaps, scents, unguents, nail varnish and related cosmetics in department stores may be regarded by some as an instance of people – women especially, though the more recent rapid growth of toiletries for men makes one wary of distinguishing too sharply along gender lines – being easily conned by clever marketers into yearning for unattainable beauty while being made anxious as regards their own bodily imperfections and aromas. The rush to toiletries, from these points of view, stems from a combination in contemporary society of many advisors on what constitutes 'keeping in shape' and maintaining 'good health' and of manipulative salespeople eager to persuade consumers to buy things their forebears could scarcely have imagined worth having, such as shower gel, anti-ageing cream, aroma therapy liquid, tea tree oil and eye reviver.

However, a more plausible explanation is that customers have bought toiletries extensively, not because they were once ignorant of personal hygiene and/or misled by marketers, but because they have decided that these are products that give them pleasure and enjoyment, so much so that they continue to buy bath bombs, exfoliants and specialist face washes (Obelkevitch, 1994). The success of the Body Shop reflects the ability of founder Anita Roddick to respond effectively to the needs and desires of her customers, and this was manifested in the remarkable growth of her company, from a small shop in Brighton in 1976 to about 2,500 stores in over 60 countries by the time it was taken over by L'Oréal in 2006. Lush, established in 1994 and now with some 600 shops in over 40 nations, followed a similar trajectory under the guidance of founder Mark Constantine. To be sure,

men have lagged in this sphere, and until a generation ago deodorants, eau de toilette and after shave balm readily evoked suspicions of effeminacy. Women's refusal to tolerate body odour and sloppy manicures in their partners may have encouraged a transformation of men's bathroom practices. However, whatever the contribution of gender relationships, what it is important to grasp is that the most convincing explanation for the boom in toiletries among both sexes is that buyers felt better about themselves when using them, found bath essences, fragrances, body butter and massage bars pleasing, and came to place a heightened importance on personal care and presentation. In sum, the rise and rise of the toiletries business in recent years comes down to the operation of enterprising people and the market system in which they succeeded.

This leads to the second argument in favour of the view that markets are the preferred means of ascertaining and meeting people's needs. This has it that any one individual's needs are so complex and variegated that it is impossible for any planner, expert or even advertiser to identify them precisely. However, the market system, through its everyday price signals, does allow the effective mediation of relations between producers and consumers. Hayek (1945) in this way conceived the market as an extremely complex yet simultaneously sensitive *information system* that allows for individual needs and wants to be calibrated with economic activity in ways which no amount of planning, state or otherwise, can possibly match.

It is an important insight of Hayek's that markets are as much about information as they are about resources. In his terms prices and sales are information flows mediating between consumers and producers and they are the only satisfactory way in which demand can be matched with supply. Reflect for a moment on the extraordinary volumes of information that one personally generates in one's everyday life, from buying one's breakfast (cereals? Pastries? Eggs? Coffee? Tea? Toast?), getting a newspaper (which one? Where? How often?), organizing lunch and dinner, maybe purchasing some music or even some toiletries . . . Looked at this way, particularly in terms of the everyday arrangement of one's day, Hayek's argument is surely resonant. He even conceives of 'things we know but cannot tell' to capture the density and sophistication of routine transactions undertaken by many millions of people during the course of the day. How else but by market signals might one calibrate consumer needs and products and services than by this self-organizing process of *catallaxy* that enables the harmonization and synchronization of many individual preferences and allows what Hayek terms 'spontaneous order' to prevail? The only imaginable alternative – and it was tried *à outrance* by former Communist regimes – is establishing experts to intercede and organize production on behalf of the people: so many types of shirts and shoes deemed necessary, so much bread and milk required, so much heating oil and coal needed . . . Planning from the centre in such ways has proven to be ineffective at best and totalitarian at worst.

It will be clear that the logic of Hayek's analysis is that the state ought to have but a minimal role in society, with the market best left to its own devices to ensure information flows smoothly through the price mechanism. In Hayek's view the state cannot possibly know everything that people need, and should it presume to do so it thereby intrudes on liberties. Indeed, in his view liberty can only be

ensured by the free market since it is via the latter's signalling of 'dispersed information' (Hayek, 1976, p. 9) that people's requirements are made known and circulated. Here, indeed, is a radical vision of the original Information Society: it is one in which markets are left unrestrained to operate as signalling devices to ensure that people are at once maximally free and able to have their needs fulfilled by the unrestricted flow of countless transactions that allow producer and consumer to rub along together.

Hayek does recognize a role for the state when it comes to upholding the rules of conduct in society. Because it is impossible to stipulate all the ends that individuals might wish for, there needs to be a set of procedural rules so their infinite variety might be accommodated and adjusted to. Were it possible to 'agree on ends there'd be no need for moral rules of procedure' because life would be straightforward. However, just because individual needs cannot be so identified, the state must maintain rules of conduct as 'equipment for certain unknown contingencies' (Hayek, 1976, p. 23). Such a point of view allows Hayek to support rules for regulating behaviour so long as these provide a framework for competition, hence free markets. In terms of such a framework, Hayek acknowledges especially the input of *common law*, those rules that have emerged often over centuries, not as a matter of design by an overseeing state, but as modes of conduct that have evolved out of a multitude of circumstances and experiences. Such common law, what Hayek refers to as 'grown law', helps people get on with their lives, facilitating individual decision-making and contributing to 'spontaneous order'.

There can be no doubt, however, that Hayek has little tolerance of government interventions when government begins to talk in terms of 'what people need' or 'how justice might be established'. His most renowned book, *The Road to Serfdom* (1944), proclaims that state intervention is the thin end of a wedge that ultimately threatens to bring totalitarianism. Here, in a tract written during years of world war, Hayek depicts Nazi Germany and Soviet Russia (the two enemies whose fate decided the outcome of the 1939–45 struggle) as but 'rival socialist factions' (p. 6), both antipathetic to freedom and both collectivist through their dedication to 'central direction' (p. 26) by states which presume to know what society needs and that are quite prepared to impose their visions on the populace. And it is not just the Communist and Fascist states that come in for Hayek's chastisement: he is prepared to attack even versions of social democracy since an 'unintended consequence' (p. 9) of their commitment to planning is a drift towards totalitarianism.

There is a degree of wariness towards democracy itself that pervades Hayekian thought.⁴ On one level, this comes from the conviction that free markets are the most appropriate means of maximizing liberty in that they best respond to individual needs through the unceasing transmission of signals identifying consumer wishes. As we have mentioned, in so far as the polity can provide a framework to smooth the operation of markets, it is acceptable. However, it is hard to escape the conclusion that Hayek harbours great suspicion of politics and politicians. His view being that markets best express and allow freedom, he worries because politicians have a propensity to interfere in economic affairs. Modern

democratic politicians are attracted towards interventionism; they presuppose the legitimacy and efficacy of planning, so much so that for Hayek (1991) there is 'an irreconcilable conflict between democracy and capitalism' (p. 385).

There are vital issues here. The usual approach to democracy has it that in the political sphere voters make known their preferences by choosing from a range of programmes and candidates and thereafter elected officials endeavour to put into practice the expressed will of the people. Actual processes are complicated and compromised, but the primacy of politics in a democratic society is acknowledged in so far as this is the arena in which people's wishes and aspirations find expression. However, in Hayek's conception of capitalism as an 'information system' we encounter relegation, perhaps even a reversal, of this notion that democracy prioritizes politics. In his view endeavours to articulate the wishes and wants of people in the polity are an oversimplification of the heterogeneity of individual preferences and, at the same time, encourage politicians to intervene in and to attempt to shape affairs in ways *they* believe desirable. This imposition of the will of the politician at best is destined to fail and at worst hurtles the society down the road towards totalitarian rule. This must be so since, insists Hayek (1988), the 'spontaneous order' of the market system 'generate[s] and garner[s] greater knowledge . . . than could ever be obtained or utilized in a centrally-directed economy' (p. 7). Set against this, the interventions of politicians must appear clumsy and insensitive and, as such, they jeopardize the successful working of catallaxy, hence threatening liberty.

In this way Hayek privileges markets as the preferred means of meeting people's needs, in the process contending that liberty trumps democracy in so far as the latter presumes to articulate and act upon the will of the populace. Trying to give voice to and act upon voters' expressed will, democratic politics perversely simplifies people's needs and threatens their ever being met by cack-handed efforts to direct the market from the polity. To paraphrase Hayek (1991), if Parliament is free to do what it wills, then there is not a free people in the land over which Parliament has jurisdiction (p. 403).

It hardly needs saying that Hayek's position leads to antipathy towards conceptions of the public sphere, at least once these reach beyond being expressions of market activity. He would be especially hostile to those public sphere claimants of the twentieth century who adorn themselves in the rhetoric of public service while in receipt of state funds. A Hayekian analysis would deem it unavoidable that organizations such as public service broadcasters take on characteristics of self-serving elites, drawing their members from privileged backgrounds in the main, being unsympathetic towards capitalism because removed from market disciplines, and presenting audiences with what they, the producers, determine is worthwhile, unconstrained in what they do because their revenue is secure whatever programming they produce. Such are familiar criticisms of the BBC, which is assured of its finances from the returns of an obligatory poll tax on all television owners (the license fee that provides the bulk of the BBC's 2012 income was more than £5 billion, double that of commercial ITV), whose audiences have little or no leverage and whose staff is composed disproportionately of metropolitan and elite university-educated personnel (cf. Tracey, 1998; Burns, 1977; Born, 2004).

For Hayek the market is the preferred form of information exchange. Any state-funded organization that sets out to provide a service that it claims will inform the public of what it needs to know is acting presumptuously and is in danger of becoming an imposition on individuals, who are in a better position to identify themselves what they need than are state-subsidized institutions.

I develop a critique of Hayek later (pp. 271–3), but one objection may be flagged here. His presentation of an unbridgeable divide between the unknowable needs of individuals and the all-knowing state he discerns in modern politics is surely overstated. We may acknowledge the particularities of individuals and be alert to the dangers of oppressive or even heavy-handed government without denying that, in many aspects of life, we require social and political discussion and decision-making that has constraining consequences on individuals⁵ but serves the general good – one thinks of schooling, transport and even of welfare arrangements in this respect. Living within agreed constraints is, in part at least, what it means to belong to a society.

Nevertheless, Hayek does effectively remind us of dangers that accompany state interventions in society, notably so in the informational domain. It is not hard to see risks of individual voices being overlooked or even silenced in the face of top-down institutions such as dominate in broadcasting, education and even in formal political organizations. All are commanded by highly educated, professionalized elites whose views are readily heard and in the face of whom the majorities are silenced. The ostensible reason for such exclusion is that the populace does not possess appropriate expertise: the dominating dominate through their accredited qualifications, experience and ease of operation in these domains.

Disintermediation and the neo-Hayekians

Commentators on the internet have a good deal to say on this matter. Here one may call attention to the recurrence of Hayekian themes encountered among enthusiasts for blogging, Wikipedia (and wikis more generally), Twitter and social network sites such as Facebook and MySpace. A key refrain of these observations is *disintermediation*, that is, the capacity with these technologies for ordinary people to get a platform for their views and avenues unobstructed by intermediaries.

Wikipedia, for instance, resonates with Hayekian themes, with its emphasis on the capabilities of the anonymous many to match – and even outdo – the quality of production of the accredited expert, while it also creates an ongoing, never completed, encyclopaedia that is far more inclusive than established competitors (in what established compendium could one find a running commentary on the post-2003 Iraq invasion and occupation, details of the recordings of Leonard Cohen or a biography of Keith Jarrett?). Wikipedia is a product of anyone who feels they have something to contribute: biographies and qualifications are not scrutinized before they may submit copy. Revealingly, Wikipedia's founder (in 2001), Jimmy Wales, avows that 'Hayek's work . . . is central to my own thinking about how to manage the Wikipedia project', going on to stress that 'one can't understand my ideas about Wikipedia without understanding Hayek' (quoted in Mangu-Ward 2007), particularly the 1945 essay 'the Use of Knowledge in Society'.⁶

Wikipedia stands against orthodox encyclopaedias that are put together by acknowledged experts, who have generally undergone extensive training and have taken years to build a reputation sufficient to gain approval to produce definitive statements on a given topic. With as effective an outcome (if not beyond criticism for occasional lapses), Wikipedia invites anyone who feels they have something to contribute to the subject to participate, the proviso being that what they submit must be open to correction, amendment or elaboration by anyone else. This is pure Hayek – minimal rules of conduct apply, but only in order for individuals to be able to make their own and anonymous contributions more effectively. Aggregated individuals can, it appears, generate information as reliable and robust as groups of recondite experts.

The emergence of blogging was welcomed late in 2004 by Nobel Laureate Gary Becker and jurist Richard Posner (both affiliates of the Chicago School of Economics) as ‘a fresh and striking exemplification of Friedrich von Hayek’s thesis that knowledge is widely distributed among people and that the challenge to society is to create mechanisms for pooling that knowledge’. With regard to the economy Becker and Posner repeat Hayekian orthodoxy: because information is dispersed throughout society, the market’s price signals are essential to ensure this is available so entrepreneurs might fulfil multiple and ever-changing needs. But Becker and Posner now assert that the internet massively enhances this by ‘enabl[ing] the instantaneous pooling (and hence correction, refinement, and amplification) of the ideas and opinions, facts and images, reportage and scholarship, generated by bloggers’.⁷ Blogging is presented here as a means of spontaneously sharing information by and from millions of dispersed actors far beyond price signals of customers. In the realm of ‘ideas and opinions’, blogging, without state interference, allows millions of exchanges between people, a process that is capable of producing and assessing more reliable and robust information than hitherto imagined. One may be puzzled about how well the comparison holds given the absence of the price mechanism in the blogosphere, but the noteworthy thing here is that the analogy is made as a way of understanding the new media.

A related point is evident in recent commentary on ‘crowdsourcing’. The premise of this concept is that information itself can be superior when it comes from outside a particular organization, indeed when the largest possible range and number of contributors (the crowd) may participate. Those who embrace crowdsourcing frequently cite an arresting maxim (Joy’s Law) that supposedly originated from Bill Joy, co-founder of Sun Microsystems, that has it that, however smart you and your organization might be, there are countless more smart people who operate elsewhere. Crowdsourcing endeavours to reach these, by facilitating engagement of vastly greater numbers than is possible from within an organization or among a personal set of associates. This large-scale engagement can extend to collaboration between participants who do not necessarily know one another yet have something to contribute to the common goal.

In such a way, crowdsourcing expresses a principle that is foundational to the Wikipedia experiment. A major achievement has been claimed in the development of Open Source Software (Weber, 2004) that comes about through the deployment of large numbers of volunteer and distributed contributors, but one may extend

crowdsourcing to other ways of engendering high quality information (Lakhani and Panetta, 2007). For example, open competitions to produce the best possible advertising campaign or new widget may easily be crowdsourced via internet calls rather than left to in-house employees or a select few consultants, with the prospect of finishing with superior products. Similarly, one might suggest that political programmes may be both more robust and even more democratic when crowdsourced rather than, as currently, being produced solely by leading activists.

Eric von Hippel (2005), an influential thinker in this area, suggests that many innovations come, not from supplying organizations, but rather from *users*. This insight has been seized on by those who urge crowdsourcing since their ambition is to tap into just this source of change. The lineage of crowdsourcing within Hayekian thought is unmistakable here. It evokes Hayek's conviction that centralized bodies cannot monopolize information, however much they try, since it is too complex, variegated and impenetrable to be so captured. Hippel's reference to 'sticky' information to conceptualize that which is hard to obtain, dispersed beyond the organization and often tacit, contains a strong echo of Hayek's thinking. If one seeks a practical example of distributed users leading innovation, then think of the growth of apps (applications) for Apple's smart phones. These come from third-party creators who retail their apps (for sports fans, bus routes, exercise regimes) through the App Store. Since 2008 over a million apps have been developed (with over a billion downloads), numbers unimaginable had Apple kept apps in-house.

Cass Sunstein (2006) takes the wiki principle and with it a Hayekian 'profound truth' (sic, p. 17) to contest the view that deliberation among experts or elected representatives is the best means to develop information, thereby to arrive at the most persuasive policy decisions. Sunstein directly evokes Hayek to claim that groups of officials can arrive at poorer decisions than dispersed individuals, whose perspectives can be pooled, again to evoke, like Becker and Posner, a parallel between the market and wikis in homage to 'the wisdom of crowds' (Surowiecki, 2004). When many contributors can produce documents and policy by having opportunities to correct one another's efforts without fear or favour, the final product can outmatch even the deliberations of the most distinguished authority.

Sunstein (2007) distances himself from full-blown endorsement of Hayek. In particular, he refuses to adopt what he takes to be a consumerist approach towards information found in much new media. Consumers are too readily self-indulgent, passive and content to remain in safe information enclaves. These may be contrasted with *citizens* (Barber, 2007), who are engaged and alert, eager to contribute to wider public knowledgeability and stimulate disputation using new media. As citizens choose to participate in political and other affairs and as they adapt new media to facilitate their involvement, they might find Hayekians approving in so far as they bring disparate opinions and details to the 'market of ideas'.⁸

Moreover, between the promise of blogging and its practices are major gulfs. One has reason to be suspicious of the promise of widening participation courtesy of the internet held out by Becker and Posner, not least because they are distinguished professionals themselves. Involvement in their blog appears limited to the well educated, politically informed and discipline-competent. Further, the association of blogging and market signals as a means of harvesting dispersed information

falls down because blogging does not normally utilize a price mechanism to sift and sort (where it is tried, as with some newspapers, participation is severely limited). Instead, when it comes to blogging and the realms of ideas and proposals and conjectures and refutations, we need to be conscious that there operate status, rhetoric, audience self-selection and other factors that determine the information that gets generated, gains acceptance and enjoys longevity on the net.

The market and democracy

We have seen that Hayek has little time for those who would defend the public sphere as a requisite of democracy, still less for the public service institutions that claim they are integral to it. He saw in the spontaneously organized information system that is capitalism a means of securing the liberty that he prized above all and was suspicious of democracy's propensity to interfere in people's lives.

There is much to object to with regard to Hayek.⁹ For someone of my generation, a baby boomer reared in the aftermath of the Second World War, it is astonishing to record the practical effects (privatization, denationalization, deregulation and the rest) and the continuing appeal of this *laissez-faire* ideology that, following the disasters and despair of the 1930s, appeared unconscionable to so much of the post-war world. The Great Depression had brought mass unemployment, political polarization and finally war. There was a widespread refusal to return to the unfettered capitalism that had brought this to pass. A consequence was belief in the appropriateness of state intervention in economic affairs, broad acceptance of comparatively high levels of taxation (the standard rate of income tax was around 40 per cent from the 1940s through to the late 1970s, with the highest rate at 75 per cent [Clark and Dilnot, 2002]) and major infrastructural sectors of industry directly shaped by government (notably house building, but also much engineering) and even owned by the nation (energy, water, railways, telecommunications, etc.). This was not seen as a challenge to capitalism *per se*, but rather was expressive of the Keynesian consensus of *managed capitalism* that dominated thinking for thirty years, with its insistence that the unrelated market threatened a return to the 1930s (Judt, 2010). The conviction that the market knows best has put paid to and supplanted this consensus and, with it, conviction in the rightness of government regulation.

It is readily conceded that globalization has reduced the power of the nation state, yet the Hayekian enthusiasm for the free market seems to offer little understanding of the actual structure and working of capitalism today, an era where transnational corporations predominate (Dicken, 2011). These are free to roam the globe when it comes to production, marketing and even reporting of their tax liabilities. Given the resources they command and the versatility offered them by way of computer communications technologies, it seems bizarre to conceive of them working within a framework of free market competition. They are characterized by their transnational reach, their oligopolistic features (typically markets are dominated by a small cluster of giant corporations) and capacity to bypass national governments where it suits. Moreover, it is ironic that, where they fail – as the

banking system did, catastrophically, in 2008 –, states have felt compelled to prop them up with colossal injections of public funds since they are ‘too big to fail’.

Hayekians dream of the state removing itself from economic affairs, yet it was the Thatcher regime that marshalled the resources of the state to ensure the defeat of opposition, notably organized labour, that fell before her mantra of ‘strong state, free market’ (Gamble, 1988) and strengthened centralized government (Jenkins, 2007). There is also lacking in Hayekian devotees analysis of manifest power differences, where corporations and their stakeholders have resources to ensure their voices are heard and have influence above others. What we get, in place of substantive examination, is what John Gray (1995) has termed ‘market fundamentalism’, a quasi-religious liturgy that proclaims the ‘free market’ must prevail for the best outcomes. However, this is not a matter of theory restricted to the pulpit, but a loudly voiced and implemented policy in circumstances in which there is no credible alternative political programme yet being formulated (Crouch, 2011).

Hayek presents a determinedly over-abstract vision that is reluctant to acknowledge that the market can have negative effects on information availability as well as on its quality. Nick Davies (2007), for instance, identifies the emergence of ‘churnalism’, that is, reportage characterized by a lack of independence and courage, built round PR handouts and agency items consequent on the heightening of corporate drives towards profitability. Playwright Dennis Potter (1994) deplored a similar corporate intrusion, acridly describing the cancer that was killing him as his ‘Rupert’ to express his derision for News Corporation and its owner, Rupert Murdoch. Such critics point to the denuding effects on information of unrestricted capitalist activity, regarding it as likely to weaken public knowledgeability.

We might add here that the proposition that law should be limited to facilitating the free operation of markets is dubious when it comes to directly informational issues. In Britain, for instance, it is established by statute that broadcast news must strive for objectivity, impartiality and fairness. The BBC, ITN and Channel 4 news are not perfect, but few judges would compare them unfavourably to the aggressively partisan content of Fox News in the United States, where the First Amendment insists on ‘freedom of speech’ and thereby permits an outpouring of inaccurate and partial content on the biggest cable news service in the USA, a subsidiary of News Corporation. British newspapers are exempted from the statutory requirements of broadcasting, a reason why they are readily identified by their partisan political dispositions. Not surprisingly, opinion polls consistently report that broadcast news in Britain is much more trusted than that in newspapers. It is not unreasonable to suggest that, were there no statutory limitations on news production in the UK, the range and accuracy of information would be the poorer, since markets forces here do not ensure pluralism. On the contrary, the instance of the press demonstrates the concentration of news in the Conservative camp.

Whatever criticism one might wish to make of Hayek’s thinking, he was surely correct to challenge the conceit of politicians, collectivists most especially, who believe they know best what other people need and wish for. By the same token, his warnings about the all-knowing state’s threat to liberty (and, ultimately, to democracy itself) are to the point (as an early reviewer of *The Road to Serfdom*,

George Orwell [1944, p. 143] appreciatively observed). This insight has been effectively drawn upon in a good deal of comment on new media, notably in the ways in which they allow the release of information from below. The capacity of internet technologies to allow contributions from just about anyone – in Manuel Castells's (2009) terminology, its enabling of 'mass self-communication' – is surely a democratizing impulse in so far as it presents opportunities for the formerly excluded many to contribute to discussion, debate and the creation of knowledge. Some, me included, regard this as a positive development, even if we would wish to qualify our approval.

Francis Fukuyama

We turn now to a pro-market thinker who has a good deal to say about democracy and capitalism, though he appears unconcerned about public information and knowledgeability. To this degree he stands opposed to the range of thinkers we discussed in Chapter 9 in that he unapologetically favours capitalism, yet he aligns with Hayek neither in the latter's view of the market as an information system nor in his prioritization of liberty over democracy. Fukuyama (1992) acknowledges positive gains that have accompanied the emergence of a 'society built round information' (p. 4), conceding these things as increases in choice, freedom from constraints and a decline in established hierarchies. They are to be embraced, but Fukuyama also expresses concern for less positive developments that he dates from the 1960s, namely a diminishment of social order and attendant feelings of togetherness, alongside a decline in the mutual trust that comes with these.

Francis Fukuyama contends that only market society can sustain liberal democracy, though a public sphere is not a prerequisite for its operation. His well-known argument has it that there is directionality to history in that market society, being the most efficient form of production, has triumphed over all alternatives. At the same time, there has been an accompanying 'struggle for recognition' among citizens that has culminated in liberal democracy. The conjoining of democracy and capitalism is hereby completed, though Fukuyama (1992) sees no sublimating satisfaction since it is only during the struggle that people feel most free. Once they have 'create(d) for themselves a stable democratic society', they will have forfeited, in victory, 'the possibility of their ever again being as free and as human as in their revolutionary struggle' (p. 312).

Fukuyama's suggestion is that at the core of the difficulties of an Information Society is the question of how might we connect with one another. What binds together a society and prevents social ills such as crime, broken relationships and increased alienation? Fukuyama (1999) suggests that in the Information Society there is a malaise springing from 'unbridled individualism' (p. 14). While we undoubtedly have more freedom and higher living standards, 'social capital' appears to be on the wane and, with it, respect for authority, commitment to the commonweal and a sense of belonging. This is, of course, a resonant theme in social thought, one that cuts across the political spectrum, which suggests we are moving inexorably from communally oriented ways of life to more individualistic

modes (Nisbet, 1967). Fukuyama's response is also decidedly conservative, in search of re-establishing connectedness between people, and to this degree at odds with Hayek's more hard-nosed liberalism. What is also striking about Fukuyama is his perception that this tendency is exacerbated by the spread of the Information Society.

He identifies several reasons for social breakdown in the Information Society. First is the ongoing and accelerating pace of change, through automation and reorganization, that unsettles and threatens all communities. The former mining and steel towns of the North of England, now consigned to the 'rustbelt' and riddled with petty crime, family dislocation and high levels of unemployment, were once bywords for social solidarity and order. In the Information Society the labour that sustained these communities has gone and, with it, their more talented members, who have moved to find employment in information businesses. The second challenge is closely related, with the Information Society undermining the fixities of place in its emphasis on geographical (and virtual) mobility and an attendant transitoriness of relationships. Certainties that once accompanied long-term living in particular locations, working in a specific place over generations and possessing high levels of familiarity with one's neighbours are weakened, people increasingly thrown on to their own devices and compelled to trust only in themselves.

Third, the transition to information work demotes the contribution of brawn in favour of brain, a prowess that promotes women to levels alongside men, encourages the feminization of the labour force and leaves many men – the poorly educated, the unskilled, the discarded, the graceless – in a state of limbo. As it happens, Fukuyama believes that women in employment are taking on the attributes of their male counterparts, hence competitive, self-oriented and calculative, which, in turn weakens the role traditionally played by women in neighbourhoods of mutuality, socialization and care, adding to a decline in the resilience of social bonds. Fourth, he draws attention to the import of women's control over their bodies, modern contraception leading to reproduction becoming a lifestyle option. As many as one in five women in the UK over the age of 40 have chosen never to have children, and these women come disproportionately from the most educated and professionalized, hence relatively high in the Information Society hierarchy.

De-industrialization, the declining significance of place, the feminization of employment and child-rearing becoming an option of decreasing appeal, together contribute to heightened individualism, a weakening of belonging and a drop in social capital. Concomitants are increased family breakdown, more criminality and associated discontents. It is not so important whether Fukuyama is correct in his ascription of responsibility (there seems, for example, little evidence to suggest a causal connection between women's labour force participation and any growth in crime). What matters more is his argument that, while he believes capitalism singularly cultivates liberal democracy (itself a contested assertion [Gray, 2007]), the parallel growth of the Information Society brings about significant social disorder. And while Fukuyama suggests that the spread of information-intensive work in 'flat' organizations may stimulate a counter-tendency by constructing networks of trust across space among fellow professionals, his general prognosis is dim. In the aftermath of the financial crisis of 2008 and the ongoing

recession, he is left bemoaning the absence of alternative ideas for social change to the neo-liberalism that lavishly rewards the extremely rich and appears to abandon much of the remainder of the populace (Fukuyama, 2012).

Conclusion

The thinkers and ideas considered in this chapter get insufficient attention in discussions of the Information Society, particularly in considerations of connections between information and democracy. They are eclipsed by proponents of the public sphere, which requires state support to address shortcomings identified with the market system when it comes to the information domain. As we discussed in Chapter 9, there are reasons to be wary of state interventions in life that even advocates need to acknowledge. By way of contrast, this chapter has engaged with those who contend *tout court* that the market works best when left to its own devices. Here state intervention, even where it is well intentioned and even when aimed at demonstrable imperfections, is regarded as ineffective, generating problems of its own and even making unsatisfactory matters worse.

Such strictures apply equally to informational issues as they do to other expressions of the directive state. Thus pro-market thinkers readily decry and warn against state provision of television services, internet supply and even of public libraries. Friedrich von Hayek, the most trenchant of these pro-capitalist theorists, indubitably resists state meddling, insisting that market mechanisms are the superior and more sensitive instrument for gauging people's needs and desires. Capitalism is, in effect, an information system that ensures the harmonization of supply and demand.

This being so, it will be readily appreciated how hard it is for Hayekians to envisage any circumstances in which tax revenues might be committed to institutions with a brief to service the informational needs of the public. Their very formation and practices would be necessarily presumptuous and destined to end badly. Indeed, as we have seen, Hayek has doubts about modern democracy *per se*, being suspicious of the tendency of modern political parties to create 'plans' to better 'manage' the economy (and much else), thereby undermining liberty, his overriding value. Here we are a far cry from those who would bolster the public sphere by yet more state support. From such market enthusiasts there are few concerns about the downsides of increased commodification of information, the presence of monopolies in the arena, the extension of consumerism throughout society or the consequences of differential power in a capitalist society for advancing particular points of view.

Francis Fukuyama announces capitalism's singular capacity to meld productive efficiency and consumer desires with liberal democracy. In this neo-conservative analysis informational matters are not noticeably relevant to either capitalism or democracy, save that the unfolding Information Society contributes generally to a diminution of social capital that, in turn, leads to disorder and disharmony. Such trends may weaken democratic societies, though Fukuyama regards them as unlikely to challenge the hegemony of the capitalism and democracy connection.

Notes

- 1 Govan is a poor and homogeneously working-class part of Glasgow about three miles south of the city centre.
- 2 Though historian Jonathan Rose (2001) reminds us of the vital role of the second-hand book trade, from as early as the 1840s onwards, which meant that while ‘the high cost of new books and literary periodicals was an obstacle to the working class reader, [it was] not an insurmountable one’ (p. 120).
- 3 The Higher Education Statistics Agency supplies the data: http://www.hesa.ac.uk/index.php?option=com_content&task=view&id=2611&Itemid=278.
- 4 Cf. ‘I must frankly admit that if democracy is taken to mean government by the unrestricted will of the majority I am not a democrat, and even regard such government as pernicious and in the long run unworkable’ (Hayek, 1979, p. 39).
- 5 In truth this is a critique of the well-known individualism of John Stuart Mill, whose classic text, *On Liberty* (1859), urged non-interference save where harm might be done to others. Not surprisingly, perhaps, Hayek could conceive himself as a liberal in the nineteenth-century sense of that term.
- 6 Wales’s allegiance to the thought of Ayn Rand (1905–82) and her philosophy of Objectivism, in which the unfettered market and human endeavour are conjoined, is noteworthy if bizarre.
- 7 Quotations from Becker-Posner blog. Available at <http://www.becker-posner-blog.com/2004/12/introduction-to-the-becker-posner-blog.html>.
- 8 One suspects, however, that when such activists commence formulating policies aimed at changing circumstances, Hayek would withdraw approbation in face of what he would interpret as untoward intrusions on liberty.
- 9 It would be remiss here not to stress that Hayekian thought came to prominence in the UK in the late 1970s with the election of Margaret Thatcher, who was great admirer (Thatcher, 1995). An anecdote tells of Mrs Thatcher, recently elected leader of the Conservative Party, attending a seminar in the summer of 1975 hosted by the Tory’s research department that advocated a pragmatic ‘middle way’ for her then opposition party. John Ranelagh (1992), then working for the Conservative Research Department, records that Thatcher ‘reached into her briefcase and took out a book. It was Hayek’s *The Constitution of Liberty*. Interrupting our pragmatist, she held the book up for all of us to see. “This”, she said sternly, “is what we believe”, and banged Hayek down on the table.’ Baroness Thatcher was certainly an enthusiast for Hayek, though it is doubtful that she was persuaded by close study of his writings. Mrs Thatcher was no intellectual, but a conviction politician *par excellence* and a doer rather than a thinker (cf. Marquand, 2008, p. 282; Vinen, 2009, p. 7).

Information, reflexivity and surveillance: Anthony Giddens

Anthony Giddens (born 1938) is the most important British sociologist in over a century (Anderson, 1990). His ambition has been to recast social theory and to re-examine our understanding of the trajectory of *modernity*, the great transformation that began in the seventeenth century and has never ceased. From a detailed critique of social theorists he developed his *structuration theory* in the early 1980s and produced path-breaking historical sociology, after which he turned to more substantive analysis of *reflexive modernization*. Since the late 1980s Giddens has applied this conception and its attendant emphasis on the *choices* we make in a world of *manufactured uncertainty* more directly to practical changes. It is for this that he has become known beyond academic circles as the formulator of ‘Third Way’ politics that enjoyed considerable popularity during the late 1990s and beyond among such as President Bill Clinton and Prime Minister Tony Blair, though it should be emphasized that the intellectual foundations for his support of New Labour are rooted in his long-term academic work (Giddens and Pearson, 1998). He served as Director of the London School of Economics from 1997 to 2003 and in 2004 was ennobled. Lord Giddens remains active in the House of Lords. Prolific as he is in scholarly publications, these latter roles and his emphatic shift into politics in recent decades have meant that some of his academic projects remain incomplete.

What I intend to do in this chapter is take insights from Giddens which I find helpful to explore the significance of information in an illuminating way. What follows is not a full exposition of his thinking, but rather an interpretation of trends in information that is grounded in my understanding of his writing (cf. Kaspersen, 2000). Thus I use Giddens as a launch pad to write extensively about core issues such as information war, surveillance and democratization, even where he has not considered these at any length, since I find his work provides insight into understanding these matters.

Giddens does not write much, at least directly, about the Information Society. It is not a concern of his to discuss this concept, not least because he is sceptical of the proposition. It is his view that we live today in an epoch of ‘radicalised modernity’, one marked by the accelerated development of features long characteristic of modernity itself. In fact, he has asserted that ‘[a]lthough it is commonly supposed that we are only now . . . entering the era of information, modern societies have been “information societies” since their beginnings’ (Giddens, 1987, p. 27). Accordingly, Giddens’s theorization leads one to argue that the heightened importance of information has roots so deep in history that, while information has

a special significance today, it is not sufficient to mark a system break of the kind Daniel Bell conceives as Post-Industrialism. In other words, in Giddens we find ways of accounting for the informatization of relationships in the modern world, though I do not think he would argue directly that we are entering a new Information Society.

The theoretical legacy

Giddens engages with classical social theorists, most notably Karl Marx, Emile Durkheim and Max Weber. His aim, like that of the great trio, is to understand the emergence of modernity from around the time of the mid-seventeenth century. Sociology's origin and purpose were to account for this break with 'traditional' societies, which was marked by the development of factory production, bureaucratization, urbanization, the growth of a scientific ethos, new ways of seeing nature – the set of institutional and attitudinal changes which we call modernity.

Unlike the founding fathers, however, Giddens finds Marx's explanation for modernity (the dynamics of 'capitalism') and the Durkheimian and Weberian master keys ('industrialism' and 'rationalization') inadequate. It is not that these are inapplicable so much as that they oversimplify. What we need to acknowledge are other factors in the making of the modern world which the great tradition either understated or overlooked. Giddens emphasizes two associated features of modernity underplayed by the classical thinkers, namely *heightened surveillance* and *violence, war and the nation state*.

Giddens does not, of course, develop his critique without drawing on antecedent theorists. Thus his concern with the growth of surveillance owes a good deal to the work of Michel Foucault, as well as, in a less direct manner, to themes discernible in the writing of Max Weber (O'Neill, 1986). Again, Giddens's (1985) conviction that 'the impact of war . . . upon the generalised patterns of change has been so profound that it is little short of absurd to seek to interpret such patterns without systematic reference to it' (p. 244) recalls the interest in 'militaristic societies' of nineteenth-century sociologist Herbert Spencer as well as themes of neo-Machiavellians such as Vilfredo Pareto and Gaetano Mosca, who paid particular attention to power, coercion and force.

Nevertheless, Giddens's observation that the two major competing explanations for the emergence of the modern world – capitalism or industrialism – have eclipsed other contributions is valid, and much of the originality of his critique lies in bringing concerns of Foucault and Spencer into debate with the major classical inheritance. This endeavour to illuminate other factors allows him to present an especially interesting perspective on the origins, significance and development of information.

Organization, observation and control

At the outset we need to establish a point which is preliminary to what follows. This is simply – though it is not simple at all! – that the world in which we live is

much more *organized* than before. That is, our lives now are planned and arranged in unprecedented ways.

No one should jump to the conclusion that there is implied here some decline in personal freedoms. There can be no doubt that in the past circumstances massively restricted humankind: hunger, the uncertainties of nature, the impositions on women of multiple pregnancies, direct oppression from rulers and the compulsion of everyday existence placed limitations on people besides which most modern constraints seem scarcely significant. So to stress the organizational features of modern life is not to conjure some Rousseauesque ‘world before chains’.

The premise that life today is more routinely and systematically managed does not mean that nowadays we inhabit some sort of prison. Indeed, as will become clear, our increased liberties are often correlated with greater organization – though, of course, this does not have to be the case. But to repeat: the starting point here is that life now is much more methodically arranged than before. This has come about not least because of modern capacities to limit the constrictions of nature. As we have become able, for example, to dispose hygienically of human waste and to create plentiful supplies of food, so life has moved from governance by nature to organization by elaborate social institutions. And here are instances whereby increased options for people (reliable sanitation and sufficient food) have accompanied, and indeed been premised upon, the development of organizational structures.

A moment’s thought brings home the enormity of modern-day organization. For instance, consider the school system, an astonishing organizational accomplishment which brings together thousands upon thousands of teachers, ancillary staff and pupils at preordained times, to undertake pre-established activities which, if locally variable, have a great deal in common across the nation, and all of which is arranged to ensure continuity over the years. Again, consider the astonishing organizational arrangements that lie behind an activity essential to all of us – shopping for food. The daily routine of co-ordinating between suppliers, producers, manufacturers, transport and customers that is required of today’s supermarkets (typically stocking several thousand different items, many of which are perishable, thereby compounding problems for the retailer) is a spectacular organizational achievement compared to previous ages.

This organization can be extremely sophisticated. Consider, for instance, the planning that is a requisite of train and bus schedules, of the electricity supply industry, of television programming, of credit card systems, or of the production of clothing for large retail outlets, or even something as mundane as the cereals that many of us eat at the breakfast table. It matters neither that we reflect little on the ‘abstract’ and ‘expert’ systems (Giddens, 1991) that handle these arrangements nor that, for the most part, we have ‘trust’ in their reliability. The fact remains that modern life is unprecedentedly organized.

A consequence of this, which is easily overlooked, though it will be a theme of this chapter, is that to organize life information must be systematically gathered on people and their activities. We must *know about people* if we are to arrange social life: what they buy, and when and where; how much energy they require, where and at what times; how many people there are in a given area, of what

gender, age and state of health; what tastes, lifestyles and spending capacities given sectors of the populations enjoy. Bluntly, *routine surveillance* is a prerequisite of effective organization. Not surprisingly, therefore, it is easy to trace the expansion of ways of observing people (from the census to checkout tills, from medical records to telephone accounts, from bank statements to school records) moving in tandem with the increased organization which is so much a feature of life today. *Organization and observation are conjoined twins, ones that have grown together with the development of the modern world.*

The increasingly organized character of life is a key element of Giddens's theory of *reflexive modernization*, for which he draws explicitly on the work of Ulrich Beck (1992). Central to Giddens's argument is that life is increasingly disembedded, by which he means that, more and more, life is not controlled by fixed (embedded) communities (villages, tribes, religions) or by nature (the seasons, landscape, soil). In embedded situations one does 'what one must' because, for example, the beliefs and mores of the neighbourhood in which one lives are inescapable and unchallengeable or because the dictates of nature are overwhelming (cows must be milked, crops must be sown). In contrast, nowadays people increasingly choose how to live, personally as well as collectively, whether this is a matter of choosing one's intimate partner or of adopting genetically modified crops.

An important corollary of this development is a growing refusal to accept fate or destiny or any argument that asserts that 'things must be done this way because that's the way they have always been done'. Giddens suggests that we inhabit a *post-traditional* society, one in which everything is questionable. Consider, for example, how one chooses friends or pastimes oneself, or the ways in which all moral claims are now contested, or how 'natural' limits are refused (deserts are made to bloom, infertility is combated, old age resisted). This is not to say that people make free choices here, there and everywhere, since clearly each of us makes decisions in circumstances that constrain in one way or another. The central issue, however, is that it is increasingly acknowledged that arrangements we enter into are not givens, but are socially constructed, hence chosen. It follows that those who resist consideration of choices are regarded as 'fundamentalists' of one sort or another whose recourse is to tenets which are subject to challenge and are, indeed, regularly challenged (e.g. 'It's God's will', 'Children must obey their parents', 'Women are born to serve men', 'The angels took her', 'There's only one true religion').

Modernity being a matter of increased choices made at every level necessitates heightened reflexivity, by which Giddens means increased surveillance (information gathering) so that we may develop knowledge upon which may be made choices about ourselves and the sort of society we want. After all, if today religion is increasingly a matter of personal conviction, it follows that people need information about other religions as a requisite of their making their own choices. Again, if more and more people are to choose to adopt a lifestyle which appeals to them, a requisite is that a lot of information must be available to them about variegated lifestyles, not least so they may refuse those lifestyles which others might prefer them to adopt. Choice is feasible only where information has been gathered about actual and possible situations, hence monitoring of arrangements must be

undertaken. By the same token, where there is heightened reflexivity there must also be means of making this information available to others, and accordingly there is a central role to be played by media of all sorts in today's world.

If disembedding requires heightened reflexivity, this also has major consequences for control over our futures. Crucially, information gathering and analysis allow us to choose our futures on the basis of *risk assessment*. That is, nowadays we observe situations, reflect on what we learn, then calculate the consequences of deciding on a particular option. For instance, everyone getting married will consider the qualities of the proposed partner before taking the plunge, will know the risks of divorce, and they will be aware of the greater likelihood of marital failure should they have been divorced previously. It is likely that the delays in first marriage (in the UK partners are typically over 30 years of age) and the massive increase in cohabitation prior to marriage (it has doubled since 1996, to include one in eight people over the age of 16) is, in part at least, an attempt to minimize the risks of divorce at a later stage. This is not an exact process, but it is evident that such an intimate decision involves risk assessment informed by one's consideration of the relationship so far and what information can be garnered elsewhere. When government or corporations adopt a policy towards the environment, transport or farming, similar principles come into operation: surveillance and information accumulation, reflection and decisions made on the basis of risk assessments.

Living as we do, anxiety and uncertainty go with the territory. This makes for a paradox: we now have much more freedom and control over our lives than our ancestors, yet we are arguably more unsure of how to act than they who just 'did what they had to'. Children were reared in traditional ways, tasks were undertaken because they 'had to be done', death was a 'fact of nature'. Today parents commonly worry about how to relate to their offspring, alternative ways of doing jobs are routinely introduced, and death is resisted by medicine, diet and exercise regimes. Living in a *post-traditional* society is full of paradoxes, to which we turn in a moment, but for now we may stress that this world has an insatiable appetite for information, one driven by the questioning of all traditions and a yearning to 'take control' at all levels, from the corporate and political to the personal.

Paradoxes of modernity

It is well known that most commentators had glum opinions about the growth of surveillance. For instance, Max Weber's (1930) resignation to the inevitability of bureaucratization lessened neither his gloom at the prospect of a world filled with 'specialists without spirit, sensualists without heart' nor his distaste for the 'mechanised petrification' which accompanies the 'iron cage' of rational-legal organization (pp. 181–2). Given the currency of such views it is as well to make a comment on what one may refer to as paradoxes of modernity. At the outset it is useful to distinguish *individuation* from *individuality*. The former refers to the situation when each and every person is known about, hence identified by a singular record, say of name, date of birth, residence, employment history, educational achievements

and lifestyle preferences. The latter, which many commentators believe to be threatened by increased social organization and the observation which is its accompaniment, is about being in charge of one's own destiny, doing one's own thing, having control over one's life – things inimical, it would appear, to intrusive institutions and their information-gathering impulses.

Frequently individuation and individuality are conflated, with the undoubted increases in individuation being taken to mean there has been a decline in individuality. Now it is undeniable that individuation requires that people be monitored and observed, but the development of files on individuals documenting their earnings, housing circumstances and the like may in fact be requisites of enhancing their individuality in so far as this relies on their being treated as unique beings and, let us say, being sure of receiving entitlements without which they may be limited in their capacity to be true to themselves. If we are going to respect and support the individuality of members, a requisite may be that we know a great deal about them. For instance, if each of us, as an individual, is to have a vote, then we must be individuated at least by name, age and address. Seen in this light, individuation is a requisite of a democratic society. Again, if as a society we consider that members must reach a certain level of housing provision and material sufficiency in order to fulfil their individuality (if people are cold, alone and living in abject poverty their individuality is surely thwarted), then it is a requisite of meeting those needs that we individuate people and detail their precise circumstances.

This point may be taken further, beyond the idea that information needs to be gathered in order that people may gain entitlements. It is clear, for instance, that in many spheres monitoring of individuals is a foundation for the operation of complex organizations that, through the services they supply, can enhance the individuality of customers. For instance, the telephone network individuates every user and accumulates a massive amount of detail about them (i.e. all users have a unique number and every call is automatically logged for destination and duration). Upon the basis of this information are established telecommunications networks that extend into most homes in advanced societies and reach out across the globe. For those people with appropriate connections these organizations offer enormous enhancements to their lives (Mulgan, 1991). At the touch of a button people may keep up friendships, family and professional relationships, links that enhance one's sense of self and individuality. Much the same point can be made about the construction of banking networks. Many people nowadays have credit cards of one sort or another through which every transaction made may be recorded and an individuated profile of spending patterns constructed. But if it is on the routine monitoring of an individual's purchases and payments that complex banking networks operate, these very processes can increase the individuality of actors by making credit and the transactions of everyday life considerably easier. Anyone who has tried to book a hotel or hire a car or even travel without fear for their cash or anxiety about handling foreign currencies will appreciate this point.

If we cannot straightforwardly equate greater information about people with a diminishment of individuality, there is yet another paradox that requires comment. This stems from recognition that we have emerged from a world of neighbours and entered what has increasingly become one of strangers. Here we have

the old theme in social science of a shift from community (the familiar interpersonal and village-centred life of pre-industrialism) to associations which involve the mixing of people unknown to one another save in specific ways, such as bus conductor, shop assistant and news vendor (the urban-oriented way of life of the modern). Ever since Georg Simmel (1858–1918) we have appreciated how disorienting and also liberating the transfer from closed community to a world of strangers can be. The city may fragment and depersonalize, but in doing so it can also release one from the strictures of village life. Put otherwise, with the shift towards town life comes a decline in personal observation by neighbours and, accompanying this, a weakening of the power of community controls that are exercised on an interpersonal basis. Entering urban-industrial life from a country existence one is freed from the intrusions of local gossip, of face-to-face interactions, from close scrutiny of one's everyday behaviour by neighbours. By the same token, in the urban realm one can readily choose freedom, be as private as one likes, mix with others on one's own terms, indulge in the exotic without fear of reprimand, be anonymous.

The paradox here is that urban societies, being more socially organized than communal-based modes of life, must gather extremely detailed knowledge about their publics in order to function. And in key respects the information gathered by these institutions is more detailed, more insinuating and more individuated than anything garnered in a pre-industrial community. There talk and memory would be major means of gathering and storing information; today, however, the information is put together and stored through a variety of means (computerized and written records, merged databases, routine metering of actions such as use of electricity or banking services) and accumulated through time. Anyone doubtful of the precision or weight of such information might reflect on the tales a few months' supply of bank, telephone or credit card statements could tell about them (what they spend, where, on what, where they went, how much they earned, who they connected with and for how long and how regularly, what clubs they belong to, where they ate and with what regularity [Burnham, 1983, pp. 20–48]).

The impersonal life of association entails the collection of greater information about individuals than the world of neighbours. It may be that we can readily shed the cloying grip of family and friends in the city, but we can scarcely avoid the surveillance of the tax office, medical services or local authority. And it is impossible to escape the scrutiny of search engines on the internet nowadays, where every query and every subsequent action is collected, aggregated and traceable to a specific account.

Much of the observation undertaken today is anonymous, by which I mean that a good deal is known about people's lives – their shopping preferences, their sexual proclivities, their lifestyles, their political allegiances – but, intimate though it often is, it may not name the subjects which supply the information. An upshot of this is that people are most closely observed nowadays, so much so that, living amidst strangers, they remain much more intimately known than any previous generation, even those living in a cloistered community. For example, today we know a great deal about people's sexualities, about their aspirations and secret desires, and also about political preferences at a given time. All such information sets the contemporary society apart from pre-industrialism, when mechanisms for

gathering such information were not in place. However, the information gathered about others, and ourselves, which feeds into each of our own perceptions and even behaviour, does not necessarily reach the level of identifying the individuals from whom the original data were gleaned.¹

In spite of this, the information so gathered is frequently essential for the functioning of modern organizations (political parties, retail companies, family planners, etc.) and, moreover, it very often feeds back to other individuals (through media and educational institutions especially) who, having learned more about people and expectations, are themselves better equipped to make choices about the conduct of their own lives (e.g. about the range of lifestyles available in society at any given time, about different sexual preferences, about the variety of child-rearing practices). Again we encounter the paradox: as more is known about people, so individuals may get opportunities to enhance their own individuality by making choices of their own.

In what follows it is as well to bear in mind these observations because, when it comes to examining the growth of surveillance, it is easy to adopt a Manichean position (Lyon, 2001). In this sense more observation appears, inescapably, to intrude upon the liberties of individuals, just as greater organization appears, necessarily, to diminish the individual's autonomy. In such circumstances the ready-available judgement – how awful! – may be an oversimplification. When it comes to analysis of the state's role in organization and observation, something with which this chapter is centrally concerned, such a judgement is especially appealing, which is yet further reason to beware impulsive judgement.

The nation state, violence and surveillance

In helping us to understand the expansion of surveillance and organization in modern times, perhaps most important is the attention Giddens pays to the role of the state. I want to elaborate on this, but would preface my remarks with a point Giddens has made many times. This is that, in most circumstances, when we talk of 'society' we are actually referring to *nation states*. Thus when we study 'modern society', as a rule we study 'modern Britain' (if we are British), and when we compare different 'societies', we generally contrast nation states (for instance Britain and the United States). While this equation of 'society' and 'nation states' is satisfactory for much of the time, it has to be recognized that the two terms are *not* synonymous. The nation state is a particular kind of society, one created recently in world history.

The concept of a nation state came into being during the late seventeenth and eighteenth centuries and, while it has been at the centre of the construction of the world as we know it (Gellner, 1983), it should be examined as an artifice. The nation state is *not* 'society', but a particular type of society that has distinct characteristics. Here we may telegraph a central theme of Giddens's argument. He contends that from the outset in the nation state, conceived as a bounded area – territory – over which is exercised sovereignty, information has a special significance. Indeed, from their beginning, nation states are Information Societies in that

they must, minimally, know their own members (and, necessarily, those who do not belong). Giddens (1985) believes that nation states must maintain hold of both 'allocative resources' (planning, administration) and 'authoritative resources' (power and control) and that, while these tend to converge in the modern state, a prerequisite of both is effective surveillance. It follows therefore that:

modern societies have been . . . 'information societies' since their inception. There is a fundamental sense . . . in which all states have been 'information societies', since the generation of state power presumes reflexively gathering, storage, and control of information, applied to administrative ends. But in the nation state, with its peculiarly high degree of administrative unity, this is brought to a much higher pitch than ever before.

(Giddens, 1985, p. 178)

What we have here is the contention that, if we want to designate as an Information Society one in which information is crucial for its operation, we may look to the nation state, since it is with the establishment of territories and sovereignty over such boundaries that we may discern an imperative for routine and systematic surveillance.

But this is too abstract. What we need to do is to elaborate more detail of the argument that the nation state has a particular interest in and reliance upon information gathering and storage. That way we can appreciate some of the specific forms informational developments have taken in recent history. Essential to this task is to describe further some of the major features of the nation state.

First, the *modern world is constituted by nation states*. This is in no way to underestimate the process of what is now known as globalization (to which Giddens gives much attention). I discussed some of these issues in Chapter 5, but here the emphasis on the division of the world into nation states gives us sensitivity to vitally important features of modern life. Among these are that nation states are essential to most people's identities. To the majority, national allegiance ('I am British, French, German, American') is a central element of their being. The issue of national identity is complex, layered and at the core of a great deal of modern political movements. A moment's reflection on anti-European Union sentiment across the continent, despite there being almost thirty member states and years of belonging together, illustrates the point. At one pole, whether one watches one's national football team on television and wills them to win or roots for one's country's representatives at the Olympics, there is evidence here of national consciousness of some sort. At another, we have expressions of nationalism that are autocratic, racist and belligerent – the 'ethnic cleansing' pursued in former Yugoslavia through the 1990s is a reminder of just how virulent this can be. But everywhere, to a greater or lesser degree, nation states influence identities by constructing mythic pasts made up of legends and literature, traditions and celebrations, customs and caricatures. Study of these 'collective identities' (Schlesinger, 1991) has produced a voluminous literature, all of which agrees that they are a core feature of modernity, however variegated and nuanced they might be.

However much analysis may cast doubt on the veracity of 'national identity', the fact remains that it has potency in modern history. As many a Marxist has had

to concede, the masses have wrapped themselves in their national flags with much more alacrity than they have followed the call of 'Workers of the world unite.' Moreover, always, in defining who belongs to a particular nation, there is necessarily a definition of who does *not* belong. In an age of unprecedentedly large-scale migration, legal conceptions of nationality (who is to carry a passport and have access to other citizenship rights) are a fraught issue. In the realm of the culture – that area of feelings, meanings, alliances and identities – it can be even more strained and toxic (Goodhart, 2013).

It is not surprising that the nation state remains quite central to people's identities when one notes that the emergence of modernity, archetypically evidenced in the processes of industrialization, has been experienced within a context of developing and consolidating nation states. The orthodoxy among social theorists was that the nation state and associated nationalisms would decline when faced with the logics of 'industrial' or 'capitalist' expansion. This has not been so. In fact, much of the dynamism of industrial capitalism has come from the imperatives of the nation state itself, something that in turn stimulates feelings of national consciousness.

Furthermore, the nation state remains crucial to a great deal of economic and social life. One has but to reflect on fiscal policies, educational strategies, welfare or the complex issues surrounding law and order to appreciate this and hence to better understand the continued salience of the nation state in people's lives.

At the same time, it is sobering to be reminded of the novelty of the nation state. So many of us have become so accustomed to the state's presence that it can appear to have an extraordinary permanence. However, even 'traditional' nation states are little more than a couple of centuries old and, it should be stressed, none are fixed for ever. Thus the United Kingdom has a history of about three hundred years, and still today there are challenges from Scottish, Welsh and especially Northern Irish constituencies (to which devolved government is a response). One has but to consider the 1989 events in Eastern Europe to understand the mutability of nation states: the break-up of the Soviet Union, the reunification of Germany, the division of Czechoslovakia. Little more than a glance across Europe reminds us that numerous nation states are challenged by internal nationalisms. A closer look at the Middle East reveals nation states (Yemen, Kuwait, Jordan, Oman and Saudi Arabia) established only in recent decades on societies that hitherto were largely tribal. There, too, is one nation – Israel – torn by territorial claims of others (Palestinians) for their own nation: not surprisingly, this region is a constant source of tension.

I lay emphasis on the importance of nation states to socio-economic organization and identities alongside their novelty and tendency to recompose because this allows us to pay due attention to a second key feature of the nation state. This is that *the majority of nation states have been created in conditions of war and all are sustained by possession of credible defence*. In short, war and preparedness for war have been fundamental contributors to the nation state. Any analysis of British history makes the point forcefully enough: the Act of Union in 1707 emerged from military defeat of the Celtic fringe, and important preconditions were that strong monarchs were able to defeat and place under their control previously autonomous barons while offering some security from outside invasion. Further, the more

recent history of Britain, notably that of the days of Empire, illustrates dramatically the readiness of nation states to fight over territories and, by no means least, the contribution this made to national consciousness (older readers may recall those maps of the world covered in 'British red' studied by schoolchildren well into the 1970s).

Benedict Anderson (1983) reminds us of how essential information resources were to these processes in the colonial era. He discusses the 'institutions of power' (p. 163) that played leading parts in establishing national identities and in facilitating conquest. Among these, maps and censuses were central and interconnected. Maps 'penetrated deep into the popular imagination' (p. 175) among the colonialists, and they were also essential to enable colonialism to operate. The refinement of map-making, the precise calculation of longitudes and latitudes, was a requisite of conquest – the military needed to know where it was going! – and in turn censuses were essential to know, and thereby to order, those whom one was to rule. As Anderson says, the ambition of the military conquerors was for 'total surveyability', 'a totalising classificatory grid, which could be applied with endless flexibility to anything under the state's real or contemplated control: peoples, regions, religions, languages, products, monuments, and so forth' (p. 184).

This point about the nation state being rooted in war/defence may be put in a less dramatic way. From the definition of the nation state as sovereignty over a given territory, it follows that a minimal responsibility of national governments is upholding the integrity of borders (alone or in alliances). *Preparedness for war is a requisite of all nation states* and this principle has been repeatedly put to the test.

A third key feature of the nation state is closely connected to the second. This is that *modern war/defence became much more decisively implicated with the wider society* during the twentieth century. On one level this simply means that greater proportions of the population were engulfed by modern warfare than previously. Conscription and mass mobilization were obvious expressions of this. Relatedly, one can trace an increase in the number of casualties of war among both combatants and civilian populations. Crudely, war killed and maimed more people than ever before. It is usual to see the First World War as marking a decisive turning point in warfare (Fussell, 1975): certainly the military casualties were unprecedented. Yet as the twentieth century unfolded it was among the civilian populations that war wreaked the most severe damage, modern warfare leaving no hiding place from aerial and other forms of attack. Illustratively, the 1939–45 war, though actual combatant losses were much less for Britain than in 1914–18, led to over 45 million dead, the vast majority non-uniformed (Gilbert, 1989, pp. 745–7), losses amounting to around 10 per cent of the populations of Russia, Poland, Yugoslavia and Germany.

If modern wars between states increased in ferocity in this sense of their taking many more civilian casualties, there remains another, related, way in which warfare extended deeper into the social fabric. One feature of this has been a close connection between industrial activity and preparedness for war. As Giddens (1985) puts it, in observing the developing links between the state's war activities and industries such as chemicals, energy and engineering, it was during and after the First World War that commentators began to recognize 'the integration of large-scale science and technology as the principal medium of industrial (and military) advancement'

(p. 237). It follows that, with war/defence being profoundly influenced by industry's capacity to produce equipment essential for its conduct, the 'industrialization of war' was a central feature of the twentieth century. Indeed, it is possible to depict the period from around 1914 through to the 1970s as one of *Industrial Warfare* in which mass mobilization and a close association between industrial production and military capability were defining characteristics (Kennedy, 1988).

Information War

However, over the past thirty years or so we have seen the unravelling of industrial warfare, to be replaced by *Information War* that places an even greater emphasis on the informational dimensions of combat. Information in warfare nowadays has a massively heightened and more pervasive role than hitherto, whether it involves the observation of one's enemy (or potential enemies), arranging the deployment of one's resources or the management of public opinion at home and abroad. Furthermore, information has permeated all dimensions of modern warfare, whether in the form of satellites that may surveille the enemy, in computers that record and assess military requirements wherever they may be, or in 'smart' weapons which are pre-programmed to 'fire and forget'. That is, information is no longer a matter of intelligence about an enemy or about one's resources; it is now, and as a matter of routine, incorporated into the weaponry and decision-making systems themselves. Such is the centrality of information, hard and soft, to war now that the US Department of Defense (2003) prioritizes the ability to 'fight the net' as a 'core military competence' and that 'information operations' pervade advanced military functions (p. 6).

We may signal some of the distinguishing features of Information War (Libicki, 1995):

- With the dispersal of the military around the globe (chiefly US and NATO forces), there have developed complex and durable systems of *command and control* to co-ordinate, assess and oversee these resources. The computer communications infrastructure to handle and protect information flows is a prerequisite of contemporary war (Bracken, 1983). It is at once a source of strength and of vulnerability, with command and control systems a priority target for any combatant in war where 'decapitation' of information networks is sought.
- Following the collapse of the Soviet Union and the removal of the attendant threat of a collision of superpowers, the expectation is that most future conflicts will be what Manuel Castells (1996) terms 'instant wars' (pp. 454–61), by which is meant relatively brief encounters (outside of civil war situations), with active operations lasting only for days or a few weeks, in which the United States (or NATO and/or United Nations-approved forces) is victorious by virtue of overwhelming superiority of its resources. Such asymmetrical warfare means opponents are quickly crushed from the air, though of course where victory is followed by occupation troops on the ground they become vulnerable to attack from roadside bombs and suicide missions. This has its greatest effect on public morale, often far away yet a significant factor in resilience everywhere.

- Information War no longer requires mobilization of the population (at least not inside the major powers, where an aim is to wage clean war in which their own civilian population will be unscathed [Shaw, 2005]). Conduct of war relies on relatively small numbers of professional soldiers, pilots and support teams. This represents a shift in the military towards what have been called 'knowledge warriors' (Toffler and Toffler, 1993), a term which underscores the centrality of personnel adept at handling complex and highly computerized tools such as advanced fighter aircraft, surveillance systems and guidance technologies.
- Great attention is devoted to *perception management* of the population at home and, indeed, round the world because the public needs to be mobilized not as participants in war, but as spectators whose approval is required. This is pressing in democratic nations, where public opinion is an important factor in the war effort and where a fear for military leaders is a concerted reaction against the war domestically since this may impinge on the fighting capability of their forces. Further, there is widespread apprehension that the public will react to vivid pictures of the wrong sort (say bloodied bodies rather than 'precision strikes on legitimate targets'). This impels military leaders into careful planning for and management of information from and about the war, though at the same time assiduous efforts must be made to avoid the charge of censorship, since this flies in the face of democratic states having a 'free media' and undermines the persuasiveness of what does get reported. Perception management must therefore combine ways of ensuring a continuous stream of media coverage that is positive and yet ostensibly freely gathered by news agencies. Coverage of the Gulf War in 1991 may be seen as evidence of first-rate 'perception management', since it achieved massive media attention yet was antiseptic in substance. However, the Second Gulf War of 2003 and the subsequent occupation of Iraq, combined with resistance to foreign troops in Afghanistan for more than a decade until 2014, proved much more problematic for the perception managers, with recurrent instances of non-desirable images – suspects being electrocuted and sexually abused, hostages begging for their lives while being filmed by the enemy – appearing on the screens of televisions back home and a steady stream of oppositional interpretation being aired (Tumber and Webster, 2006; Gillan *et al.*, 2008).
- Information War is conducted using exceptionally sophisticated technologies. This is most evident among the forces of the United States, which have massive resources (the US defence budget alone accounts for 40 per cent of world military expenditure and is bigger than that of every prospective enemy and neutral country combined). An indication of this is that about one-third of the British Ministry of Defence's equipment procurement budget is accounted for by 'Command and Information Systems' alone. When this is added to expenditure on 'Weapons and Electronic Systems' and 'Aircraft Systems', over half the budget is used.
- The technologies of cyberwar are information saturated. We speak now of the digitalization of the battlefield, though computerization reaches much further, to the entire range of command and control facilities (Barnaby, 1986; Munro, 1991; Berkowitz, 2003).

- Information War no longer requires harnessing industry to the war effort. It relies instead on capturing only the leading edges of industrial innovation for military purposes – for instance electronic engineering, computing, telecommunications and aerospace.
- Information War requires meticulous planning, but this is planning for flexibility, in contrast to comparatively cumbersome plans of the industrial warfare period. Today enormous volumes of information flows, along with the incorporation of software into weapons themselves, feed into complex planning for war which prioritizes ‘mobility, flexibility, and rapid reaction’ (Secretary of State for Defence, 1996, para. 171). Game theory, simulations and the production of systems are an integral element of Information War, as is the necessity to plan on the basis of the ‘certainty of uncertainty’ (Oettinger, 1990).
- Such is the complexity of this planning for flexibility that many aspects of Information War are pre-programmed, thereby taken out of the hands of the combatant. As a director of the United States’ National Defense University puts it, now and in the future, ‘many decisions will be fully automated’ (Alberts, 1996). In part this is in response to the premium placed upon speed of action in warfare now – for instance, once a missile has been launched the counter-missile that has been designed to intercept and destroy it must be released in the shortest possible decision time, something that computers manage more quickly than human beings (Rochlin, 1997, pp. 188–209).

The First Gulf War, lasting but five weeks of January and February 1991, has been called ‘the first Information War’ (Campen, 1992). *Desert Storm* manifested most of the traits identified above, from little or no threat to the civilian population of the major protagonist (the United States), to the movement of 500,000 allied forces several thousand miles into the arena of battle while maintaining a flexibility of response that was expressed in swift advance across the desert on Kuwait, to management of ‘media friendly’ coverage in what was described as the ‘most “communicated” event so far in human history’ (Zolo, 1997, pp. 25–6). The Allied Forces were insuperably better equipped and prepared than were the Iraqis, and the consequences were evident in the respective losses: 300 or so on the American and British side, between 30,000 and 60,000 on the enemy’s, many of these on the ‘Turkey Shoot’ as they fled, under fire, back to Iraq on the Basra road, their country having endured forty-two days of war in which, it has been estimated, more explosive power was delivered than during the whole of the Second World War.

The Balkans War of 1999, the Afghanistan invasion of 2001 and the Second Gulf War of 2003 each lasted no longer than eleven weeks. Despite media apprehensions at the outset and in the opening clashes, resistance quickly crumbled in face of insuperable and unanswerable rocket and air assaults. The attack on Serbia during 1999 followed the pattern for Information War: NATO waged the campaign entirely from the air and no casualties were recorded on its side. The bombardment meant NATO triumphed and Serbia, after intensive bombing that left several thousand dead, capitulated. Afghanistan was attacked late in 2001 following the terrorist assaults on New York and Washington in September of that year. The US brought down the Taliban regime after little soldier-to-soldier combat and unmatchable

air attacks from the Americans, though the occupation proved costly over subsequent years. In 2003 the US bombing campaign of Iraq, appositely titled *Shock and Awe*, and the lack of an Iraqi air force capable of offering resistance led to US victory within four weeks. There were a few score allied casualties (many from 'friendly fire'); Iraqi deaths were not counted, not least since many soldiers were pulverized before they could mount any response, though estimates put Iraqi military deaths in excess of 30,000.

Symbolic struggles

A distinguishing feature of Information War is a heightened role for the symbolic and for saturation media coverage. War has, of course, long been newsworthy, but the mediated dimensions of Information War operate on a vastly expanded scale. Coverage is pervasive and continuous on 'rolling news' channels such as CNN, Fox News and BBC World, and it is present too in e-mail communications, internet websites and on listserv groups. The most important medium remains television, but it too is transforming with digitization and globalization. This might be contrasted with media in the era of Industrial War. Then media, especially radio and newspapers, were important to the war effort, but they were readily conscripted into the national effort and willingly censored.

It is remarkable that, while our parents and grandparents frequently had direct experience of conflict, today we have much greater knowledge of war, but chiefly from a distance (Seaton, 2005). We are safer from war than ever, yet we witness it, often in appalling detail (a prisoner pleading for his life, children screaming in terror), as spectators (Ignatieff, 2000). This mediation of war stands in contrast to the days of mass mobilization of conscripts that pertained in the era of Industrial War, when huge numbers of men experienced war directly as fighting forces and, after demobilization, would be able to narrate their experiences to family, friends and former comrades, making such recollections and reminiscences important sources of knowledge for much of the public. This might be compelling and deeply felt, though of necessity it tended towards particulars of location and service.

In contrast, today there are many fewer combatants in Information War, such that it is comparatively rare to personally encounter former soldiers and sailors in 'post-military' societies such as ours (Shaw, 1991). However, the astonishing informational output that is available nowadays lets us know far more about conflict – about the planning of campaigns, about their attendant risks, about the consequences of bombing – than the sailor mobilized to the Atlantic convoys during the Second World War or the 6th Army infantryman encircled at Stalingrad could ever have imagined. The sailor and infantryman knew well enough what it was to meet the enemy and feel the biting cold of the Russian winter. But today's media-rich viewer can get instantaneous coverage from many spheres of battle, watch reporters communicating from satellite video phones, and then have this digested for its strategic significance by politicians and experts. Removed from experience of war, citizens today have much greater informational resources than

their predecessors about war and the likelihood of its breaking out. These greater informational resources contribute to what Giddens (1994) calls the 'intensified reflexivity' of life today (p. 24).

The enormous growth and extension of media should be underlined. On one level this is simply a matter of drawing attention to the character of media: 24/7 services, transnational news, more television and speedier communications round the globe. But we need also to appreciate that what we understand by media is changing due to the convergence and integration of computing and communications, so much so that any adequate comprehension must come to grips with mobile communications, the World Wide Web, e-mail, weblogs and cognate technologies. Even established media now require reconceptualization: the *Guardian* newspaper sells little more than 200,000 hard copies daily (down 50 per cent in a decade, like most other newspapers), but its website, *Guardian Unlimited*, achieves three million electronic hits worldwide each day.

To reiterate, governments and military forces, aware that citizens learn about war through media, pay careful attention to managing information (Taylor, 2002). They want, obviously, to have publics receive news and reports that justify their conduct. This ambition is succoured by a conviction that the Vietnam War was lost because a critical media was allowed unrestricted access. Reportage of the burning of villages, exposure of atrocities and photographs of napalmed children sapped American domestic support for the fight. Beginning with Robert Elegant's (1981) article, 'How to Lose a War', this 'stab in the back' theory developed into a conviction among the military that media were important to the war effort, but were not to be trusted to get on with their jobs unguided, since they might publish stories that were unhelpful and counter-productive.

Thereafter military 'planning for war' has always included measures to control information: a preparedness to 'handle' journalists, the grooming of military spokespeople and 'unfriendly' journalists held at bay. From this follows much-documented practices of misinformation, 'minders' chaperoning journalists and photo-opportunity events designed at central command. The extended conflict in Northern Ireland and media coverage during the Falklands War of 1981–2 provided well-documented cases of this information management (Curtis, 1984; Morrison and Tumber, 1988). The category of 'embedded' journalists who were allowed to accompany fighting units to Iraq during the 2003 invasion is in line with the 'planning for war': such journalists were accredited by the military and were restricted to locations the military controlled. Those journalists who spurned this arrangement, the so-called 'unilaterals', went without military approval and, it was made clear, without military protection from enemy attack (Tumber and Palmer, 2004).

It surprises no one that those who wage war, yet who must seek public legitimacy, endeavour to put the most favourable gloss on their conduct and policies. However, media researchers have too readily moved from recognizing this aspiration to working with a control model of information about war that presupposes the military and government are able to get away with it (Glasgow University Media Group, 1985; Philo and Berry 2004). Researchers in this mode might undertake, for example, content analysis of newspaper and television reports, demonstrate that there are patterns to reportage, and show that most of these prioritized

government and military spokespeople. The conclusion is easily reached that citizens are informed inappropriately because media are disproportionately influenced by military and government sources.

This control model of media is outmoded. One might better conceive the information environment of war and conflict nowadays as chaotic, certainly as more confused and ambiguous than might have been possible a generation ago (McNair, 2006). Among the reasons for this is the resistance of many journalists to being controlled and their deep-seated scepticism towards all sources, something that is bolstered by the presence in war zones of reporters from many corners of the globe such that patriotic pleas to 'support our boys' may fall on deaf ears. It is exceedingly hard for the military and governments to control a large and diverse group of correspondents who set out from the presumption that all sources are trying to manipulate them (Tumber and Webster, 2006). Not only this, journalists are increasingly equipped with a range of equipment that both enables them to report more or less immediately, with little entourage, and simultaneously offers access to huge repositories of alternative information from the internet or from their offices back home. Furthermore, the development of transnational satellite and cable television mean that audiences have more differentiated information sources than were possible just a few years ago (Calhoun, 2004).

The increased availability of the internet to ordinary citizens, bringing along weblogs, e-mails, electronic versions of newspapers and periodicals, video clips and web sites, means that any idea of information control being readily achievable from conflict zones must be jettisoned. To be sure, it is striven for, but the information domain is so febrile, extensive and open that control is at best an aspiration.

WikiLeaks, established by Julian Assange in 2006 but which leapt to public attention in 2010 when it published hundreds of thousands of secret documents (for example on the Iraq War prisoners and Guantanamo Bay detention camp) leaked to it from within, highlights the difficulty of containing information in a digital era. One can keep it confidential, one can massage what goes out, but there is always the risk of breaches of secrecy and, with them, massive leaks of information (Leigh and Harding, 2011).

We need to conceive of a more expanded and differentiated information environment than hitherto. Publics are receiving their information on war mediated, but mediation is now more ambiguous. It comes more quickly than previous forms, is less predictable and more diverse than before. To say this is not to suggest there is a full pluralism operating in the media realm, but to insist that space has opened up in a vastly expanded realm (Castells, 2007).

This requires us to question, from the outset, any narrow definition of what constitutes the media. It is no longer enough for researchers to start and end with television, radio and newspapers in analyses of content; we must insert the web, e-mail and even the iPhone. Scholars need to acknowledge, as did the hawkish Secretary of State who led the Iraq invasion, Donald Rumsfeld (2006), that we are 'engaged in the first war in history . . . in an era of emails, blogs, cell phones, blackberrys, instant messaging, digital cameras, a global internet with no inhibitions, hand-held video cameras, talk radio, 24-hour news broadcasts, satellite television.

There's never been a war fought in this environment before.' This does not deny the mediation of war, but it complicates it to a remarkable degree. Those who wage war have acknowledged the change (Department of Defense 2003). Similarly, Tony Blair (2007), Prime Minister for a decade from 1997, appreciated that 'twenty-five years ago, media reports came back from the Falklands [during the 1981–2 war with Argentina] irregularly, heavily controlled', but nowadays internet sites allow 'straight into the living room . . . gruesome images bypassing the official accounts'. This 'transforms the context within which the military, politics and public opinion interact'.

The information environment around war, and the threat of war, is better conceived as one of symbolic struggles between various agencies: national governments, military forces on all sides, transnational media organizations, concerned non-governmental organizations and so on. These compete for time, for news agendas and for interpretations of events in a complicated but relatively open arena. Significantly positioned within these symbolic struggles is the anti-war movement (Gillan *et al.*, 2008). It strives to ensure that its perspective gets access to media in various ways, from organizing colourful demonstrations that may be co-ordinated across the world and be compellingly newsworthy, to presenting journalists with briefing papers setting out coherent, evidenced opposition to those who wage war. It also adopts a panoply of new information technologies in the struggle to ensure that its views get a platform.

Surveillance and national defence

There may be some who, pointing to the end of the Cold War, believe that the imperatives that drive defence institutions have been removed. Against this, it is crucial to realize that, while the Cold War did provide a *raison d'être* for surveillance, the 'pre-conditions for intelligence as a permanent government function lie in the modern state system' (Whitaker, 1992, p. 121). Because it is the first duty of any government to protect its frontiers, there is an insatiable hunger for information about anything affecting national interests; sight of the Communist monster is not essential to stimulate this appetite. 'Rogue' states and terrorists (from Al Qaeda and associates to 'home-grown' Islamists) especially, but even anti-capitalist protest, legitimize continued surveillance. The consequence has been the construction of a massive system of interlinked technologies to routinely and continuously monitor and inspect events and activities – military and civilian – around the globe (Richelson and Ball, 1986). For instance, Echelon, a US-led electronic spying network, has capacity to store 5 trillion pages of text gleaned from monitored messages (Bamford, 2001).

Alongside computers, satellites are a linchpin of surveillance activities. Necessarily, these systems are hidden from public view, secrecy being essential to ensure security from the enemy. Thus is constructed an anonymous and unexamined, national and worldwide web of surveillance and transmission of messages between defence agencies (Burrows, 1986). The security services come easily to be pervaded by suspicion and fear of disclosure, characteristics which reinforce their impenetrability and distance them further from public accountability (Knightley, 1986).

The surveillance machine is not only directed against external enemies. Given the nation state's susceptibility to internal assault (were power stations occupied by fifth columnists . . .), there is a powerful impulse towards searching out 'subversives' (Campbell and Connor, 1986, p. 274). Leaks and occasional exposés have revealed that surveillance can be exercised on trade unionists, Labour MPs, Campaign for Nuclear Disarmament (CND) activists, educationalists and media personnel, environmental campaigners, animal rights activists, as well as on what might be thought to be more obvious candidates (Leigh, 1980). MI5 works in association with the Special Branch of the police force, thereby extending its information-gathering network nationwide. The security services also have access on request to an array of databanks, including the Police National Computer, Inland Revenue records, British Telecom files and data held by the Department of Health.

Terrorist assaults on democracies, from New York and Washington, Bali and Madrid shortly afterwards, to London in July 2005, have accelerated and legitimated this search for 'enemies within' (Ball and Webster, 2003). They contribute an important rationale for greater surveillance that incorporates biometric data that will make individuals easier to identify and track.²

In sum, what we witness is a powerful force impelling the growth of surveillance systems that emanates from the nation state's duty to safeguard its frontiers. In a world divided by national frontiers there is, unavoidably, a built-in pressure towards the construction of effective defence machines. And because nations are often in situations of at least potential conflict, what effective means is subject to change. However, what remains constant is the impulse to garner, adapt and act upon the best possible information about real and putative enemies within and without. This impels the spread of what David Lyon (2001) terms a major form of surveillance, *categorical suspicion*, whereby threats to order, real and potential, are placed under scrutiny.

Human rights regimes

The development of Information War, and the centrality to it of 'perception management', has paradoxical effects. On the one hand, it has led to more sophisticated techniques of propaganda. On the other hand, however, this is difficult to achieve satisfactorily because media and means of communication have so proliferated that information cannot easily be channelled continuously in a preferred direction. Much domestic dissent *will* be reported, it *is* possible that journalists from the protagonists' side will be stationed in the area under attack during the conflict (and, not surprisingly, they then are likely to report events from that locale), and unsettling speculation about the progress of the war effort *will* be given extensive treatment.

Moreover, these variable flows of information precede out-and-out conflict and they can play an important role in its precipitation. It seems that, in an appreciable if hard to measure manner, there has developed an increased sensitivity towards, and awareness of, 'human rights' around the world (Robertson, 1999). This is connected to a range of factors: the spread of democracy, more news

reportage, television documentaries, modern travel, as well as to organizations such as Amnesty International and Médecins sans Frontières. These do not act with a single purpose and neither do they put out uniform messages, but they do engender a sentiment that human beings have universal rights, that we may speak of 'global citizens' (Urry, 2000), of freedom from persecution and torture, of religious toleration, of self-determination and so on. Doubtless it will be objected that this commitment is inconsistent and inchoate. This is so, but it does not fatally weaken the commitment, which can lead to calls that 'something should be done' – whether about starving children, victims of disasters or even about those oppressed by military aggressors.

In addition, the connected processes of accelerated globalization and the collapse of communism have together somewhat weakened nation states and encouraged a more global orientation in which universal rights are important. David Held *et al.* (1999) refer in this respect to the spread of 'human rights regimes'. This impelled what became known as the 'cosmopolitan' case for war made by the likes of Jürgen Habermas and Ulrich Beck against Serbia over Kosovo and the intervention in Sierra Leone by British forces in 2000. The arrest and prosecution, often years after the events, of perpetrators of war crimes at the United Nations International Criminal Court, also give expression to this 'human rights regime'.

Another important consequence of globalization and the end of the Cold War is an alleviation of former sources of conflict, notably those between nation states vying for their interests over territory and resources. Giddens (1994) coins the phrase 'states without enemies' to capture this development, adding that issues of warfare nowadays often involve varieties of fundamentalism that are found within and across states, but which rarely articulate the beliefs or interests of a unified nation state. There are many illustrations of such fundamentalisms, all of which are characterized by the assertion of certainties in an uncertain world. For instance, racial, religious and ethnic claims are frequently asserted which trace pure lineages and rights of abode at the expense of others – who often are dispossessed as a consequence. As we saw in the bloody ethnic cleansings that took place in the Balkans during the 1990s and in the terrorist attacks mounted by Al Qaeda and associates since 1998, fundamentalisms can encourage serious abuses of human rights, and these abuses in turn readily lead to expressions of concern which can stimulate the wider community to interfere in the affairs of sovereign states.

This represents a significant break with established practices where emphasis has been placed on the territorial integrity of nations. Appalling things might be happening to citizens inside a nation, but to date it has been exceedingly difficult to envisage other governments, so long as their own borders and/or interests were not threatened, intervening out of concern for victims within another's sovereign territory. Václav Havel (1999) articulated the changing situation when he voiced support for the NATO engagement in Kosovo on the grounds that 'the notion that it is none of our business what happens in another country and whether human rights are violated in that country [should] vanish down the trap-door of history'.

This involvement contrasts with the abject circumstances of the Jews, over a period in excess of a decade, inside Nazi Germany that instance the once extreme unwillingness of outsider nations to become involved in others' internal affairs until their own borders (or those of their allies) were threatened. And even then, it should be remembered, war was waged to counter German territorial aggression rather than to resist the genocidal policies that were being implemented inside the Axis nations – evidence for which being the well-documented reluctance of the Allies to give sanctuary to large numbers of Jewish refugees before and even during the war (just 10 per cent of Jewish applicants for sanctuary in Britain gained entry up to and through the horrors of Kristallnacht and the Final Solution [London, 2000; Lacquer, 1980]).

Messy interventions and occupations in Iraq and Afghanistan have meant that arguments for outside involvement have weakened in recent years. Many publics have come to believe that involvement that costs the lives of their soldiers is not worth the price. Accustomed to waging Information War that is painless, such nations have been torn by the loss of several hundred of their own young men. The first day of the Somme, in 1916, led to 20,000 dead allied soldiers, and mammoth losses continued. However, today each casualty is pictured and named, family members shown forlorn, coffins solemnly greeted and comrades testify to the value of the lost one. All this magnifies loss and dissuades governments from further involvement in overseas wars of choice. On the other hand, the uprising against the Assad regime in Syria that was sparked in March 2010 quickly led to civil protest that was met with ferocity by the Syrian military. As foreign powers have remained (largely) outside, at least 70,000 Syrians have been killed and millions displaced, with no prospect of peace three years into the rebellion. Information War is also asymmetrical in its valuation of casualties.

Nonetheless, Information War must be concerned with more than strategic or territorial interests, not least because the informational elements of organized violence are nowadays critical and hard to contain. A key feature of these elements is the spread of a universalism that denies the right of nations to do what they will inside their own borders. Again with Havel (1999), it would 'seem that the . . . efforts of generations of democrats . . . and the evolution of civilization have finally brought humanity to the recognition that human beings are more important than the state'.

Citizenship and surveillance

The foregoing underlined the contribution of the nation state's concern for war to the build-up of surveillance, though paradoxical consequences of globalization and the spread of Information War have also been noted. There is, however, another way in which the nation state has impelled the expansion of surveillance, one that has links with military enterprise, but which carries fewer of the chilling associations. This is the concern of the state with its citizens, notably how people have come to attain rights and duties, and how these are delivered and enforced. Integral to the development of citizenship rights and duties has been the spread, in the nation state, of democratic forms of governance.

To understand this better, one needs to return to the foundation of the nation state. Forged in war, often of an internecine and drawn-out kind, a priority of any sovereign power which intended to rule a given territory was what Giddens calls 'internal pacification'. Bluntly, order and stability must be achieved within one's borders as a prerequisite for securing one's external frontiers. No doubt, in the early days, 'internal pacification' could take the form of physical compulsion, but much more than this was required of a state which had ambitions for long-term survival. Minimally, the state must know its subjects – who they are, their ages, gender and location – not least because it may well require some of them to be conscripted to fight off attackers. Further, each nation state needs knowledge of its subjects so that it may effectively administer taxation. And both of these needs mean that some form of census was a requisite of all nation states – hence surveillance was a priority from the outset.

It is possible to trace the extension of ways of monitoring the internal population. During the late nineteenth and early twentieth centuries especially there was an extraordinary expansion of official statistics, meticulously gathered by increasingly sophisticated techniques, ranging from regular census materials to figures on anything from educational performance to employment patterns in particular areas of the UK (Hacking, 1990). Undeniably, the information thus collected is fascinating as a means of comprehending the changing character of society, but it is also, and crucially, a requirement of the nation state which must take responsibility for matters such as taxation, educational provision and public health. As Giddens (1985) puts it: 'the administrative power generated by the nation-state could not exist without the information base that is the means of its reflexive self-regulation' (p. 180).

However, this may be to jump ahead of the argument. A resonant theme of the development of the nation state is, as we have seen, the need to defend militarily its borders and, to this end, a census, however rudimentary, is essential since the state must be able to levy taxes and to call upon its male subjects to withstand invaders and even to take part in expansionist gambits. But something else is required. In order to get young men to fight on a state's behalf, a good deal more than knowledge of their abode and occupations is necessary. The nation state must offer them something more tangible.

To be sure, nationalist sentiments may move potential combatants and it is as well to remember the compulsion of much military recruitment in the past (press ganging, economic deprivation). Notwithstanding these factors, Giddens, drawing on the ideas of T. H. Marshall (1973), suggests that something more is also involved and that this may be conceived as a form of unwritten 'contract' between the nation state and its members. The proposal is that, in return for fighting for the nation, over the years subjects have achieved a variety of *citizenship rights*, for example the right as a citizen to the protection of the state from attack by outside forces or the right to carry a passport which allows free entry into one's host nation and support at one's embassies abroad.

Out of the contract between the nation state and its members has emerged a battery of citizenship rights and duties. The main connection with surveillance concerns how these are to be delivered and collected. The nation state, under whose umbrella citizenship operates, must develop administrative means to meet these

additional responsibilities. And it is this, broadly speaking the growth of the modern social democratic state, which is an especially powerful force for surveillance. It is so because the administration of citizenship rights and duties requires the meticulous individuation of the state's members. Electoral registers require the development of databases recording age and residence of the entire population; social services need detailed records of people's circumstances, from housing conditions, medical histories, to information about their dependants; the Inland Revenue creates gigantic files which detail the economic circumstances of everyone in the UK; throughout one's school years records are constructed describing attainments, developments, continuities and changes; programmes to mitigate the worst consequences of poverty require a great deal of information on those unfortunate enough to be considered eligible. As Paddy Hillyard and Janie Percy-Smith (1988) put it: 'The delivery of welfare benefits and services is at the heart of the system of mass surveillance, because it is here that the processes of classification, information gathering and recording are constantly multiplying' (p. 172). We might call this surveillance *categorical care* (Lyon, 2007).

Dangers of surveillance

The nation state's propensity towards surveillance, propelled by either security needs or the rights and duties of its citizens, or both, has generated a host of questions about the 'surveillance society' (Wood, 2006). To the fore have been the concerns of civil libertarians, who, witnessing the accumulation of citizens' records at the hands of anonymous bureaucrats, or learning of the capabilities of satellites to spy across nations, express apprehension about the advance of surveillance. There is an extensive literature highlighting problems such as the creation of police files on people which may be misused in the vetting of juries or which may even lead to wrongful arrest (e.g. Rosen, 2000; Whitaker, 1999).

Of particular concern are two related issues. One is the fear that agencies may have access to files collected for other purposes, for instance when security services may gain access to employment, medical or banking records. The other concerns the more general issue of melding disparate databases. With the computerization of most state surveillance files comes the possibility of linking once separate information. While there are restrictions placed in the way of making these connections, the potential is there for an 'electronic identity card' capable of constructing a 'total portrait' of particular individuals. Were agencies able to access, say, medical, educational, tax, employment, banking and criminal records, it is clear that an individual profile of considerable complexity and detail could be constructed. Such a development, attractive to government officials seeking efficiency and/or better control, massively escalates the surveillance already undertaken.

More prosaically, there are risks of losing confidential data. This happened in Britain in November 2007 when the Prime Minister, Gordon Brown, apologized to the House for the loss of two CDs that contained personal information on 25 million individuals. When over 30 per cent of the populace's health records are containable in just two discs, which were never recovered, such risks are of a high order.

From this one may be drawn to conceiving of modernity by way of the metaphor of the *panopticon* (Lyon, 1994). This notion was taken up by Foucault (1975) from the ideas of Jeremy Bentham on the design of prisons, hospitals and asylums (Himmelfarb, 1968). The panopticon refers to an architectural design whereby custodians, located in a central (usually darkened) position, could observe prisoners or patients who each inhabited a separate, usually illuminated, cell positioned on the circumference. This design is adopted by Foucault as a metaphor for modern life, one which suggests that surveillance allows the construction of a panopticon *without* physical walls. Nowadays, courtesy of modern electronics technologies, people are watched, but they often cannot see who it is who is doing the surveillance.

It is easy to exaggerate here, ironically because so little reliable information about this realm is available. However, *contra* those who are anxious about surveillance, one notes, for instance, that a good deal of the information gathered about citizens from centralized sources such as the census and government departments does feed back to people and, indeed, enables them to reflexively monitor their own position, prospects and lifestyles. Thus, for example, information on earnings levels, crime rates or divorce patterns is useful not only to state officials, but also to individuals searching to make sense of and to establish perhaps new directions in their own lives.

Zygmunt Bauman has suggested that we are now in 'post-panoptical' time since the surveillance we undergo is more dispersed, faster changing and flexible than the all-seeing panopticon metaphor conjures: surveillance might better be seen less like a tree with a central trunk (the panopticon) and more 'like creeping weeds' (Bauman and Lyon, 2013, p. 3). When one considers the vast range of surveillance practices, from school records to insurance sales, from military spy satellites to cookies on the retailer's web site, it is tempting to prefer 'weeds' over 'trees', but we ought not to jettison the notion of the panopticon prematurely because it insistently reminds us of the impulse of the state to see *everything* and of the ways in which power and the accumulation of information are intimately connected. For instance, Manuel de Landa (1991), reflecting on military surveillance, refers to its 'machine vision' manifested in things like telecommunications interceptions and satellite observation of foreign terrains, where the surveillance is automatic. Programmes are established which trawl all communications within a defined category and satellites monitor *everything* that falls under their 'footprint'. De Landa describes the sophisticated software that is developed to allow machines to decipher satellite photographs that pick up virtually *everything* beneath them, as well as the systems created to facilitate analysis of bugged communications. Looking at all such trends, he is drawn to describe it as a 'Panspectron', something 'one may call the new non-optical intelligence-acquisition machine' (p. 205).

These prospects may be chilling, but they are not imaginings from the wild side of science fiction and 'post-panoptical' fails to do them justice. They are logical extensions of the imperative to surveil that lies within the nation state (Gandy, 1993) and the organized lives we live. It is essential to acknowledge that surveillance is an integral feature of all modern societies and that 'there is no obvious and simple political programme to develop in coping with [it]' (Giddens, 1985, p. 310).

With Giddens, we have to acknowledge that ‘aspects of totalitarian rule are a threat’ precisely because surveillance is ‘maximised in the modern state’ (p. 310).

Corporate surveillance

Most of this chapter has concerned itself with the spread of surveillance at the behest of the nation state. However, in drawing on Giddens’s work to lead us towards an understanding of state surveillance, we should not forget capitalist enterprises’ contribution to the trend. Giddens himself does not ignore the part played by capitalist endeavour, stating tartly: ‘Surveillance in the capitalist enterprise is the key to management’ (1987, p. 175). A case can be made for the view that management, an invention of the twentieth century, is a category of information work, a central purpose of which is to surveil exhaustively the corporation’s spheres of action, the better to then plan and operationalize strategies which ensure capital’s best return on investment (Robins and Webster, 1989, pp. 34–52). As the pivotal figure of Scientific Management, F. W. Taylor (1947), argued, the *raison d’être* of managers is to act as information specialists – ideally as monopolists – as close observers, analysts and planners of capital’s interests.

A starting point for management, and the particular concern of Taylor, was the production process, long a problem, but becoming particularly intractable with the development of large plants and workforces in the late nineteenth and early twentieth centuries. There is a very extensive literature on the response of corporate capitalism to this, focusing on the growth of Scientific Management (Braverman, 1974; Noble, 1977), which emphasizes that managers were designated to perform the ‘brainwork’ (Taylor) of organizations, the better to exert effective control over what they manage.

A moment’s reflection makes clear that modern management monitors production as a requisite of much else. However, the purview of management nowadays is necessarily much wider than work processes (Fox, 1989). Central to understanding this is the realization that corporate capitalism has expanded since the beginning of the twentieth century in three key ways. First, corporations have grown spatially, such that typically the leading corporations have at least a national, and usually a transnational, presence. Second, corporations have consolidated into fewer and much bigger players than previously, such that typically a cluster of organizations dominates major market segments. Third, corporations have burrowed deeper into the fabric of society, by developing the outlet networks that are readily seen in most towns and by replacing much self- and neighbourly provision with purchasable goods and services.

One major consequence of these trends, which amount to what has been called the ‘incorporation of society’ (Trachtenberg, 1982), is that they pose challenges for managers which, in order to be met effectively, rely upon sound intelligence being gathered. In short, surveillance of much more than the shop floor is nowadays a requirement of effective corporate activity. There are many dimensions of this, ranging from monitoring of currency fluctuations to political circumstances in host nations, but here I centre on the development of surveillance of customers.

The expansion of market research, both within and without corporations, is an index of management's need to know its clientele. Its methods of accessing the public are variable, including interview materials, focus groups, public opinion surveys, and careful pre-testing of goods prior to launch and, indeed, during their design and development. They are getting increasingly sophisticated as market researchers endeavour to find out more about the lifestyles of potential and actual customers (Martin, 1992). Wal-Mart, for instance, 'amasses more data about the products it sells and its shoppers' buying habits than anyone else', checking some 100 million customers each week in ways that provide 'access to information about a broad slice of America' (Hays, 2004). This information extends from social security and drivers' licence numbers to aggregated data about shopping habits (that are extraordinarily revealing about personal and intimate life). This contributes towards Wal-Mart being successful as a retailer, but it also creates huge databases on who buys what, where, when and how often.

Online shopping, which is developing apace and threatens brick-and-mortar outlets, lifts this surveillance to a higher degree since purchasers cannot avoid entering details of orders (and searches) onto the company's website. The site garners location, mailing address, time spent and time of day, what one looked at and for how long, and how the customer pays. And it does this through time, never letting go of the aggregated information that is invaluable in constructing customer habits and propensities. Amazon and eBay, the pace setters, profile customers on these bases, the better to make suggestions about what they might be tempted to buy in future. As online rapidly grows, so will the systematic surveillance of consumers.

A cousin of such surveillance are credit-checking agencies, which, as well as enquiring about the financial standing of customers, often generate address lists of possible buyers for their corporate clients. Most readers will have received unsolicited mail from companies which have bought their addresses from another organization. The reasoning is simple: if a golf club has a membership list, this information is useful to corporations which, say, specialize in golfing holidays or, more broadly, in sports clothing. Purchase of the database is a cheap way of gaining access to previously monitored people.

It is important to take cognizance of the heightening of this surveillance that has accompanied the spread of versatile digital technologies. David Burnham (1983) alerted us to the phenomenon of 'transactional information' years ago, and it is one with special pertinence for contemporary surveillance. This is a 'category of information that automatically documents the daily lives of almost every person' (p. 51) as they pick up the phone, cash a cheque, use a credit card, buy some groceries, hire a car or even switch on a digital television set. Transactional information is that which is recorded routinely in the course of everyday activities. It is constructed with scarcely a thought (and frequently automatically, at the flick of a switch or the dialling of a telephone number). However, when this ordinary, everyday information comes to be aggregated, it gives corporations quite detailed pictures of clients' lives – e.g. with whom, when and for how long individuals use the telephone; or where they shop, what they buy, how frequently they buy certain goods, how much they spend; or what they spent when and where.

Another cousin is the widespread use of surveillance by social media, whose business model typically requires that users (who get free access) are sold to advertisers and marketers for the profiles revealed in the aggregated information they generate. As Pariser (2011) puts it: 'If the service is free, you are the product' for such as Facebook, Reddit and Google.

There is, of course, a worrisome side to all of this, but here I stress the practical use of such surveillance to modern corporations. The transactional information that is amassed whenever someone makes a purchase at the store's computerized tills tells the company what is selling, how rapidly or slowly, in which locations – essential information to the managers of the organization. Moreover, when the customer uses a company credit or loyalty card or shops online, the information is much richer because it contributes towards an individuated portrait of that person's spending habits, clothing and food tastes, even preferred shopping locations. As such, it is a form of surveillance that can helpfully enhance the company's marketing strategies – for example, advertising material can be judiciously targeted to particular types of customer, accompanied by a tempting offer or privilege. David Lyon (2001) aptly terms this surveillance *categorical seduction*, and it is a softer, but still intrusive, form of surveillance to state monitoring.

There is a final form of surveillance that is easily overlooked since it appears only to apply to a few, but it is worthy of analysis. *Categorical exposure* is signalled in the massive development of media and its often unwelcome character. Most commonly it is witnessed in coverage of celebrities of one sort or another. However, one should bear in mind that celebrity is a fluid term, capable of including pretty well any public figure from minor politician to civil servant, from footballer to singer, should circumstances allow. It can be considered expressive of the 'democratization of surveillance' (Ball *et al.*, 2012, p. 3) in that it examines groups who have often been immune from scrutiny in the past, though circumstances are capable of allowing an extension of this exposure to the parents and friends of ordinary Joes caught up in a crime or scandal, or even when they are victims of an accident or assault.

Exposure is typically carried out by the tabloid press (though the tabloidization of media more generally means that the process extends further). It is invasive and persistent, as a host of cases in recent years have demonstrated (Mathiesen, 1997). Anyone targeted for such exposure is sure to have their friends and family closely scrutinized, their biographies closely examined for any signs of suspicion or story and their day-to-day activities given close inspection. Bill Clinton's pursuit by the American media, apparently concerned more about his sex life than his Presidential responsibilities in the mid- to late 1990s, provides a vivid example of such exposure. There are many more instances, from the macabre coverage of football icon George Best's dying days in the late autumn of 2005, the peccadilloes of numerous Premier League players, to the hounding of Cherie Booth, wife of Tony Blair, to accuse her of impropriety regarding her dress, her looks, her friends and professional activities. Categorical exposure has intruded deeply into politics and celebrity, where there appear to be few acceptable boundaries between private and public life, but it extends far beyond that (we get some sense of its spread from the remarkable popularity worldwide of the *Big Brother*

franchised television format, where viewers watch and listen, voyeuristically, to the revelations and relations of continuously monitored candidates, who have been carefully chosen and are periodically manipulated by the programme makers).

Though it can be distasteful, there can be no denying that on occasion categorical exposure has exposed matters of public interest. The scandal in British politics of MPs' expenses claims is one such. Politicians are eligible to claim expenses incurred in performing their duties and these are recorded. However, Parliament resisted public disclosure of claims until in 2009 *The Daily Telegraph* gained possession of a leaked disc and published details that revealed often excessive and dubious expenses claims. There was a public outcry; several MPs were forced to retire and some even went to prison. It is even possible to conceive such exposure as a constituent of what John Keane (2009) has termed 'monitory democracy', a messy, often intrusive, system wherein politicians are closely and repeatedly subject to scrutiny in the name of accountability by a robust and impertinent media (cf. Thompson, 2011). All expenses claimed by MPs are now tabulated and freely available through the internet.³

Conclusion

In this chapter I have tried, starting from the work of Giddens, to outline major dimensions of reflexive modernization and its requisite surveillance that may be said to account for the increased importance, and particular forms, of information in recent years.

It is especially in the nation state and its concerns with war and security, alongside the growth of citizenship rights and duties, that one may discern major drivers of surveillance. Industrial War manifested close ties between needs of war, industrialism and the nation state, encouraging intimate connections between advanced computer communications technologies and defence. In the transition from Industrial to Information War there remains an emphasis on the military adopting leading-edge ICTs, improving surveillance measures and refining information control. However, globalization has meant that 'perception management' is hard to sustain, while discernment of other nation states as enemies has become more difficult. One important dimension of this is the emergence of 'human rights regimes' that may even be stimulants of military activities by global (or at least supra-state) bodies such as the United Nations and NATO.

The growth of corporate surveillance of consumers is important, if under-examined. It requires more examination, though it too has paradoxical features since it has been accompanied by the spread of calls for more accountability, which in turn leads to questioning and closer surveillance of corporations themselves. Such is the Janus face of reflexive modernization.

A concern of this chapter is not to paint an Orwellian scenario, though it does contain warnings of an emerging 'Big Brother' (Lyon, 2006). We tend to identify this in state surveillance, but it is as well to consider that even more intrusive surveillance may come with online shopping. However, conceived as an element of

reflexive modernization, surveillance can be seen as a corollary of the observational imperatives that accompany a more organized way of life and which, paradoxically, can enhance control, accountability and options to express different ways of life. What is certain is that surveillance is here to stay.

Notes

- 1 Anonymity may not, however, be possible to assure. Such is the scale and specificity of web searches that individuals can be identifiable even where their names are withheld. In 2006 AOL released the search records of 657,000 Americans covering three months of use (20 million searches in total) for academic research. All users were anonymized, but individuals were rapidly identified by journalists working through their search query profiles (topics of interest, number of searches, locations, content of queries . . .) (Barbaro and Zeller, 2006).
- 2 This is inevitably an opaque area, but from time to time investigators reveal something of surveillance's reach. For instance, in June 2013 the *Guardian* newspaper reported on the PRISM programme of the US National Security Agency (NSA). PRISM directly accessed US service providers (the world's largest by far) such as Apple, Google, Microsoft and Facebook, allowing the NSA to monitor *all* e-mails, live chats, videos, file transfers and so on, metadata (times, frequency, etc.) as well as content. The NSA, it seems, extended surveillance, over a period of years, to the personal communications of leaders of democratic nations, including French President François Holland and German Chancellor Angela Merkel (*Guardian*, 24 October, 2013, p. 1), as well as many other national leaders. <http://www.guardian.co.uk/technology/2013/jun/07/prism-gchq-access-covert-operation>.
- 3 <http://mpsallowances.parliament.uk/mpslordsandoffices/hocallowances/allowances-by-mp/>.

Information and postmodernity

The subject of this chapter is at once thrillingly bold and disturbingly vague. It is bold in that the prefix 'post' evokes the idea of a decisive break with the past and the arrival of a new age. This notion is both appealing and interesting, not least because announcements of postmodernity accord with the views of others who argue we are entering a novel Information Society. However, the subject is also disconcertingly woolly, postmodernity being hard to define with precision. The term can appear to be a series of impressionistic suggestions (with repeated pronouncements on 'difference', 'discourses', 'irony' and the like) and gnomic reflections of the *zeitgeist*. Furthermore, postmodernity seems at once to be everywhere (in architecture, in academic disciplines, in attitudes to the self) and, because the words are so imprecisely used, impossible to pin down.

We need to explore this audacious yet vexing idea of the postmodern because it highlights the role of information in the 'post' world in two notable ways. First, postmodern thinkers place emphasis on information (and communication) in characterizing the new epoch. Second, leading 'post' writers focus on information in ways that are intriguingly different from other Information Society authors. They centre information neither in economic terms, nor from the point of view of occupational shifts, nor from a concern with the flows of information across time and space. Rather, they stress information's significance in terms of the spread of symbols and signs. This concern is for the explosive growth and pervasive presence of all forms of media and mediation: from video to cable, advertising to fashion, e-mail to SMS messaging, to body shapes, tattoos and graffiti. As such, it draws attention to palpable features and particular qualities of life today, where we are surrounded by, even submerged in, a sea of signs and symbols. The 'post' concern for such matters is consonant with a great deal of Information Society thinking and, as such, merits further examination.

Accordingly, what I want to discuss in this chapter are the relations between information and postmodernity. To this end I shall focus on the likes of Jean Baudrillard, Jean-François Lyotard and Mark Poster, who pay particular attention to the informational aspects of postmodernity. Preliminary to this, however, I shall attempt to define postmodernity in reasonably straightforward terms – no easy task in itself, since, as we shall see, it is hard to identify the essence of something that denies the reality of essences! Finally, I shall comment on discussions of postmodernity that present it as an expression of social and economic changes.

Here thinkers such as David Harvey and, more ambiguously, Zygmunt Bauman and Fredric Jameson identify postmodernity as a *condition* that is consequent on changes that are open to examination by established social analysis.

Scholars who conceive of a *postmodern condition* (postmodernity) differ from *postmodern thinkers* such as Baudrillard and Lyotard who reject the approach of those who endeavour to explain the present using the conventions of established (modern) social science. That is, we may distinguish the position of David Harvey (1989b), who argues that we may conceive of a *reality* of postmodernity, from that of postmodern thinkers, who argue that, while we do indeed inhabit a world that is different – and hence postmodern – from what that has gone before, this very difference throws into doubt the validity of orthodox social explanation. This philosophical point may not appear important, but when we come to analysis of postmodern scholars it will become evident that the openness to examination of their descriptions of contemporary society by orthodox – one might say *modern* – social science significantly influences one's willingness to accept their points of view (Best and Kellner, 1997).

Postmodernism

Postmodernism is at once an intellectual movement and something which each of us encounters in our everyday lives when we watch television, dress to go out or listen to music. What brings together the different dimensions is a rejection of *modernist* ways of seeing. This enormous claim announces that postmodernism is a break with ways of thinking and acting which have been arguably supreme for several centuries.

Much of this depends on what is meant by the terms *postmodern* and *modern*. Unfortunately, many of the relevant thinkers either do not bother to state precisely what they mean by these words or concentrate only upon certain features of what they take them to be. That said, within the social sciences *modernity* is generally understood to identify a cluster of changes – in science, industry and ways of thought that we refer to as the rise of the Enlightenment – that brought about the end of feudal and agricultural societies in Europe and which has made its influence felt pretty well everywhere in the world. *Postmodernity* announces a fracture with this.

Some commentators have argued that *postmodernism* ought to be considered more a matter of culture than the above, such that its concerns are chiefly about art, aesthetics, music, architecture, movies and so forth (Lash, 1990). In these cases the couplet modernism/postmodernism is less overarching than the distinction between modernity and postmodernity. Moreover, if we restrict ourselves to this cultural arena there is less of a willingness to announce a break with modernism since Modernism – with an capital M – refers to movements of the late nineteenth and early twentieth centuries, such as Impressionism, Dadaism, Surrealism and Atonalism, that themselves stood in opposition to classical culture. Modernism refers to a range of movements in painting, literature and music which are distinguished from classical forms in that the latter were committed to

producing culture which was determinedly representational. Think, for instance, of nineteenth-century realist novelists (Dickens, Eliot, Balzac), all dedicated to telling a story which was clear and evocative, 'like real life' albeit fictionalized, or consider so much painting of this era, which was landscape and portraiture, aiming to produce accurate likenesses of its subjects. Modernist writers such as Joyce and painters such as Picasso broke with these predecessors.

With regard to postmodernism there are at least two difficulties to be encountered here. The first concerns the matter of chronology. Modernity commences around the mid-seventeenth century in Europe, while Modernism is very much more recent and that which it opposed was itself a product of the period of modernity. With modernity predating Modernism, plus modernity being a concept that embraces a wide range of changes from factory production to ways of thought, the question of Modernism's relationship to modernity is problematical and is a source of conceptual confusion.

The second problem is that postmodernism does not announce a decided break with Modernist cultural principles, since at the core of postmodernism is a similar refusal of representational culture. Were one to restrict oneself to a cultural notion of postmodernism it would be possible to argue that the implications of the 'post' designation are relatively minor, restricted to relatively few areas of life and in all essentials building upon the premises of Modernism. Such a conception is much less grand and ambitious than the announcement of postmodernity which rejects modernity *tout court*.

Distinguishing modernity/postmodernism and modernism/postmodernism might appear useful in so far as it could allow us to better understand the orientation of particular contributions to debates. Unfortunately, however, it is of little practical help because most of the major contributors to the debate about postmodernism, while they do indeed focus upon cultural phenomena, by no means restrict themselves to that. Quite the contrary, since for them the cultural is conceived to be of very much greater significance now than ever before, they move on to argue that postmodernism is a break with modernity itself. Hence postmodern thinkers quickly move on from discussions of fashions and architecture to a critique of all expressions of modernity in so far as they claim to represent some 'reality' behind their symbolic form. For example, postmodern thinkers reject the pretensions of television news to 'tell it like it is', to represent 'what's really going on', just as they reject the pretensions of social science to amass accurate information about the ways in which people behave. From the cultural realm, wherein it punctures claims to represent a reality in symbolic forms, to the presumptions of thinkers to discover the major dimensions of change, postmodernism insists on the radical disjuncture of the present with three centuries and more of thought.

For this reason we need not be over-concerned about limiting postmodernism to the realm of culture, since its practitioners themselves show no such compunction. Quite the reverse, postmodernism as an intellectual movement and as a phenomenon we meet in everyday life is announced as something radically new, a fracture with modernity itself. Let us say something more about it.

Intellectual characteristics of postmodernism

Seen as an intellectual phenomenon, postmodern scholarship's major characteristic is its opposition to what we may call the Enlightenment tradition of thought, which searches to identify the *rationalities* underlying social development or personal behaviour. Postmodernism, influenced by Friedrich Nietzsche (1844–1900), is deeply sceptical of accounts of the development of the world which claim to discern its growth, say, in terms of fundamental processes of 'modernization', and it is equally hostile towards explanations of personal behaviour that claim to be able to identify, say, the foundational causes of human 'motivation'.

Postmodernism is thoroughly opposed to every attempt to account for the world in these and similar ways, all of which seek to pinpoint rationalities which govern change and behaviour. The presumption of Enlightenment thinkers that they may identify the underlying rationalities of action and change (which may well go unperceived by those living through such changes or acting in particular ways) is a focus of dissent from postmodernists.

This dissent is generally voiced in terms of hostility towards what postmodernists call *totalizing* explanations or, to adopt the language of Jean-François Lyotard, 'grand narratives'. From this perspective all the accounts of the making of the modern world, whether Marxist or Whig, radical or conservative, that claim to perceive the mainsprings of development in such things as the 'growth of civilization', the 'dynamics of capitalism' and the 'forces of evolution' are to be resisted. These and similar analyses are endeavouring to highlight the major trends and themes – the main rationalities – of human development and postmodern thinkers resist them on several related grounds.

The first, and recurrent, principle of resistance is that these accounts are the *construct* of the theorist rather than accurate studies of historical processes. Here scholars who adopt the Enlightenment presumption that the world is knowable in a reliable and impartial way are challenged. Their identification of rationalities stands accused of being an expression of their own perception rather than a description of the operation of real history. This criticism is a very familiar one and it is axiomatic to postmodern thought. In brief, it is the charge that all external claims for the validity of knowledge are undermined because scholars cannot but interpret what they see and, in interpreting, they are unavoidably involved in *constructing* knowledge.

Other points of resistance show that this is not a trivial philosophical objection. This is because the grand narratives which lay claim to demonstrate the 'truth' about development reveal their own partialities in so far as the logic of their studies is recommendation of particular directions social change ought to take (typically under the direction of those who provided the analysis). This connection of knowledge to power is a central theme of postmodernism: knowledge is never neutral (or, as postmodernists prefer, 'innocent'), but gathered and deployed for power. Finally, not only is the accusation made that totalizing accounts of social change are but a prelude to planning and organizing the future, the charge is also brought that these have been discredited by the course of history.

For example, studies of social change that suggest that the most telling forces of development are the search for maximum return for minimum investment are trying to identify the predominant rationality to have governed change. It matters not that for some historical periods and that in some societies this rationality has not been followed, since it is usually the case that such 'irrationalities' are regarded as aberrations from a decisive historical directionality. Reflection on this approach to history – one in evidence in much 'modernization' theory – reveals that its claim to chart the course of the past carries with it implications for future and present-day policy. It implies that the rationality of 'more for less' will continue to prevail and, frequently if not always, that planners ought to take responsibility for shaping events to keep things on this track. This has been an important consideration for many development scholars, who have sought to influence policies towards the Third World on the basis of having discerned the successful rationality underpinning Western economic growth.

The accusation that these analysts who claim they are able to highlight the driving forces of change are partial finds support in the frequency with which their scholarship and the policies that draw upon them are discredited. By, for example, arguments that they disadvantage the undeveloped world (one thinks of desertification, acid rain, over-urbanization, economies that are dependent on cash crops), or that the 'more for less' rationality is one which, due to its anti-ecological bias, threatens the survival of human and animal species on 'Planet Earth', or that 'underdevelopment' makes it impossible for poor nations to follow the same paths as the wealthy countries, or that the 'green revolution', which promised agricultural bounty by the appliance of modern science, has led to social dislocation, unemployment of displaced farm workers and dependence on faraway markets (cf. Webster, 1990).

Another failure of grand narratives is Marxism. It has claimed to identify the mainspring of historical change in the course of the 'class struggle' which, in capitalism, ends in a showdown between the workers and the owners, with the former eventually taking power. The Marxist advocacy, which gains support from their historical studies, was that a new form of society (Communism) would be established that could take overcome shortcomings in capitalist regimes (provided people followed the line of the Marxist Party that revealed the truth).

However, Marxist claims to reveal the true history of social change are, in the aftermath of the disintegration of Soviet Communism and of still more revelations of the horrors of the Gulag, discredited. Today Marxism is regarded as the construct of those with particular dispositions, a 'language' which allowed people to present a particular way of seeing the world.

Again, Sigmund Freud laid claim, as a medically trained scientist, to discover the unconscious wherein are found repressed drives (notably sexual) that, if a child's development is maladroit, manifest themselves in various adult neuroses. Note the supposition of this grand narrative: psychoanalysis identifies the hidden truth; it does this as a science, developing a body of knowledge which duly certified practitioners (psychoanalysts) have learned and which they then draw on to exercise power over their disturbed patients. Trouble is, Freudianism has been shown to be a failure, though many have made a good living from its 'talking cure' (Crews, 1995).

To postmodernists such as Lyotard recent history has fatally undermined not just grand narratives, but *all* Enlightenment aspirations. Fascism, Communism, the Holocaust, Chernobyl, AIDS, Environmental Spoliation and so on (and there are many more) are the perversions of Enlightenment, outcomes of ‘narratives’ of the past which insisted that it was possible to identify the rationalities of change, whether these be ‘nationalism’, ‘class struggle’, ‘racial purity’, ‘eugenics’ or ‘scientific and technological progress’. In view of such outcomes postmodernism urges ‘a war on totality’ (Lyotard, 1979, p. 81), an abandonment of accounts of the world which presume to see the ‘true’ motor(s) of history. All ambition to discern the ‘truth’ of historical change ‘has lost its credibility . . . regardless of whether it is a speculative narrative or a narrative of emancipation’ (p. 37).

It follows from this that postmodern thought is characteristically suspicious of claims, from whatever quarter, to be able to identify ‘truth’. Given the manifest failures of earlier grand narratives, given that each has demonstrably been a construct, however much scholars have proclaimed their objectivity, postmodernism readily goes beyond suspicion of totalizing theories. It vigorously rejects them all by endorsing a principle of relativism, by celebrating the plurality of accounts of the world, by insisting that, where there is no ‘truth’ there can only be versions of ‘truth’. As Michel Foucault (1980) put it, postmodernists perceive that ‘[e]ach society has its regime of truth, its “general politics” of truth: that is, the types of discourse which it accepts and makes function as true’ (pp. 131–2). In such circumstances postmodern thinkers perceive themselves to be throwing off the straitjacket of Enlightenment searches for ‘truth’, emphasizing instead the liberating implications of *differences* of analysis, explanation and interpretation.

Social characteristics of postmodernism

In the social realm postmodernism’s intellectual critique is taken up, restated and extended. Here we encounter not just postmodern thinkers, but also the circumstances that are supposed to characterize postmodern life. To appreciate the postmodern condition we do not have to endorse the postmodern critique of Enlightenment thought, though it will be obvious that, if we are indeed entering a postmodern world, its intellectual observations will find an echo in the social realm. Moreover, since all readers of this book inhabit this postmodern culture they will want to test the following descriptions against their own experiences and perceptions. In my view it is not very difficult to recognize and acknowledge postmodern features of our everyday lives – though it takes a great deal more persuasion to endorse the overall project of postmodern thought.

As with the intellectual attack, a starting point for postmodernism in the social realm is hostility towards what may be (loosely) called modernist principles and practices. Modernism here is a catch-all term, one that captures things such as planning, organization and functionality. A recurrent theme is opposition to anything that smacks of arrangements ordered by groups – planners, bureaucrats, politicians – who claim an authority (of expertise, of higher knowledge, of ‘truth’) to impose their favoured ‘rationalities’ on others. For example, designers who

presume to be able to identify the 'really' fashionable and chic, to set standards for the rest of us of how we ought to dress and present ourselves, find their privileged status challenged by postmodern culture. Again, functionality is resisted on the grounds that the 'most efficient' way of building houses reflects, not some 'rationality' of the technically expert architect or town planner, but an attempt by presumptuous professionals to impose their values on other people.

What will be obvious here is that the postmodern mood is quizzical of judgements from anyone on high. To this extent it contains a strong streak of, as it were, democratic impudence, something manifested in ready rejection of those who would define standards for the rest of us. Of particular note here is the antipathy postmodernism expresses towards received judgements of 'good taste' in aesthetics. For instance, the influential literary critic F. R. Leavis (1895–1978) confidently selected the best English novelists, in his revealingly titled *The Great Tradition* (1948), as Jane Austen, George Eliot, Henry James and Joseph Conrad. For Leavis this was the literature worthy of canonical status. Against this, the postmodernist insists that 'If Dan Brown is your bag, then who are these literature professors to tell you what is better?'

Those who set standards in the past are routinely decried. Thus Leavis might confidently assert that his 'true judgement' came from an especially close reading of the English novel, but the postmodernist readily enough demonstrates that the literary critics make a living out of their criticism, their writings bringing them career advancement and prestige (they are scarcely disinterested seekers after truth). Moreover, it is an easy task to reveal that the critics' valuations rest on particular assumptions, educational background and class preferences (in the case of Leavis it is commonplace to observe his provincialism, his lifetime commitment to Cambridge and his idealization of a mythic 'organic community' towards which he believed great literature might lead us [Mulhern, 1979; Hilliard, 2012]). In short, partialities of critics are exposed, and thereby the basis of their claims to impose their judgements on the rest of us undermined.

Unmasking the pretensions of 'true' thinkers, postmodern culture testifies to aesthetic relativism – in each and every realm of life difference is to be encouraged. This principle applies everywhere (Twitchell, 1992): in music ('Who is to say that Mozart is superior to Van Morrison?'), in clothing ('Jaeger doesn't look any better than Next, it just costs more'), as well as in the live arts ('Why should Shakespeare be privileged above Andrew Lloyd Webber?'). This has a liberatory quality since at postmodernism's centre is refusal of the 'tyranny' of all who set the 'right' standards of living one's life. Against these, postmodern culture thrives on variety, on the carnivalesque, on differences. Thus, for example, in housing, the Tudor-style estate and the high-density tower block designed by those who presumed to know what was 'best for people' and/or 'what people want' are resisted; in their place the climate of opinion becomes one which tolerates individuating one's home, subverting the architects' plans by adding a bit here, knocking a wall down there, incorporating bits and pieces of whatever one pleases and let those who say it is in poor taste go hang.

At back of this impulse is, of course, the refusal of the modernist search for 'truth'. On the one hand, postmodernism resists it, because the definers of 'truth'

can be shown to be less than ingenuous about their motivations and, anyway, there is so much disagreement among the 'experts' themselves that no one believes there is any single and incontestable 'truth' to discover any more. On the other hand, postmodernism objects because it is evident that definitions of 'truth' easily turn into tyrannies. To be sure, nothing like the Communist regimes which ordered people's lives because the Party best knew the 'objective realities of the situation', but still each of us will have experienced the imposition of others' judgements on ourselves. Hence at school we will have had to read Dickens and Hardy because definers of 'literary standards' had deemed them to be worthy of inclusion on the curriculum (while ruling out science fiction, romance and westerns). Again, everyone in Britain will have some experience of BBC television as that which cultural custodians had thought worthy of production (lots of news and current affairs, the classic serials, 'good' drama, a limited range of sport, appropriate children's programmes such as *Blue Peter*). And a good number of readers will have encountered the restrictions imposed on their homes by planners and architects, most notably perhaps those of us brought up in municipal/council accommodation.

Against this, the postmodern mentality celebrates the fact that there is no 'truth', but only versions of 'truth' that make nonsense of the search for 'truth'. In its stead the advocacy is for difference, for pluralism, for 'anything goes'. A consequence is that the modernist enthusiasm for genres and styles (which at one time or another would have served to situate worthwhile art and to help identify good taste) is rejected and mocked for its pretensions. From this it is but a short step towards the postmodern penchant for parody, for tongue-in-cheek reactions to established styles, for a pastiche mode which delights in irony and happily mixes and matches in a 'bricolage' manner. An upshot is that postmodern architecture happily clashes received styles, famously 'Learning from Las Vegas' (Venturi, 1972; Jencks, 1984), perhaps combining Spanish-style woodwork with a Gothic façade or a ranch-style design with Venetian facings; or postmodern dress will contentedly put together an eclectic array of leggings, Doc Marten boots, Indian necklace, waistcoat and ethnic blouse.

Perhaps most noteworthy, postmodern culture abandons the search for 'authenticity'. To better appreciate this, one might usefully list a series of cognate words that are recurrent targets of those taken with postmodern culture: the 'genuine', 'meaning' and the 'real'. Each of these terms testifies to the modernist imperative to identify the 'true'. It is, for instance, something which motivates those who seek the 'meaning' of the music they happen to be listening to, those who look for an 'authentic' way of life which might recover the 'roots' of the 'real England' (or even of the 'real me'), those who desire to find the true philosophy' of the 'good life'. Against all of this, postmodernism, perversely at first encounter, but consistently from a starting point which rejects all things modern, celebrates the inauthentic, the superficial, the ephemeral, the trivial and the flagrantly artificial.

Postmodernism will have no truck with yearnings for authenticity for two main reasons. The first is one which I have already detailed: the insistence on one 'true' meaning is a fantasy, hence those who go looking for the 'authentic' and the 'real' are bound to fail because there can be only *versions* of the 'real'. We cannot hope to recover, say, the authentic Dickens because we read him as citizens of the

twenty-first century, as, for example, people who are alert to notions such as child sexuality and paedophilia which, unavoidably, make us interpret the character of Little Nell in ways which set us apart both from the author and from his original audiences. Again, there can be no 'true' interpretation of, say, the meaning of the Beatles' songs since their meanings are necessarily variable depending on one's age and experiences.

If this first objection to the search for the authentic is the insistence on the relativity of interpretation, then the second is more radical and even more characteristic of the postmodern condition. This asserts that the authentic condition, wherever one seeks it, can never be found because it does not exist outside the imaginings of those who yearn for it. People will have it that, somewhere – round that corner, over that horizon, in that era – the real, the authentic, can be found. And, when it can be discovered, we can be satisfied at having discovered the genuine (in oneself, of one's times, of a country), which may then be set against the superficial and artificial, which seem to predominate in the contemporary world of 'style', 'show' and an 'only-in-it-for-the-money' ethos. It is the contention of postmodernism that this quest for authenticity is futile.

Take, for example, the popular search for one's roots by tracing one's family back through time. Many people nowadays go to great pains in order to trace their own point of origination. A common expression of this attempt to establish authenticity is the return of migrants to places from whence their forebears moved generations before. What do these seekers discover when they reach the village from which the Pilgrim Fathers fled, the Irish hamlet from which the starving escaped, the Polish ghetto from which they were driven? Certainly not authenticity: much more likely a reconstruction of the Puritans' barn-like church 'exactly like it was', a 'real' potato dinner (with cooled Guinness and fine wines if desired), a newly erected synagogue with central heating installed and a computerized record of family histories.

You yearn to find the 'real' England? That 'green and pleasant land' of well-tended fields, bucolic cows, unspoiled landscape, whitewashed cottages, walled gardens and 'genuine' neighbours that is threatened by motorway construction, housing estates and the sort of people who live in one place only for a year or two before moving on? That place where one might find one's 'real self', where one may discover one's 'roots', something of the authentic English way of life that puts us in touch with our forebears?

But look at English rural life – among the most urbanized countries in Europe – and what do we find? Agribusiness, high-tech farming, battery hens and 'deserted villages' brought about by commuters who leave their beautifully maintained properties (which are way outside the budgets of locals) with the central heating pre-set to come on when required and the freezer well stocked from the supermarket, to drive their Volvos (industrial symbols of rural ruggedness and reliability, bettered only by Range Rovers) to and from their town-centre offices. It is these incomers who have been at the forefront of reconstructing the 'traditional' village: by resisting industrial developments (which might have given jobs to one-time farm workers displaced by combine harvesters, tractors and horticultural science), by having the wherewithal to have the former smithy's barn rebuilt (often

as a second home – with all mod cons), by being most active in sustaining the historical societies (which produce those wonderful sepia photographs for the village hall which show ‘what life used to be like in the place we now cherish’) and, of course, by resurrecting ‘traditions’ like Morris dancing and village crafts such as spinning and weaving (Newby, 1985, 1987).

The point here is not to mock the aspirations of modern-day village life, but rather to insist that the search for an ‘authentic’ England is misconceived. We can only *construct* a way of life that appears to us to echo themes from another time (without the absolute hunger, poverty and hardship the majority of country dwellers had to endure). This construction of a supposedly authentic way of life is, necessarily, itself inauthentic – and ought to be recognized for what it is. Look where one will, the search for authenticity is foiled. Many people look to ‘traditions’ to provide a sense of place, of surety in a fast-changing world. There is something soothing about tradition; it provides familiarity in uncertain times. But these English traditions – Christmas Day round the tree and dinner with turkey and trimmings, the Oxford/Cambridge boat race, the Cup Final at Wembley, ‘real’ ale and ‘real’ pubs, perhaps, above all, the monarchy – are ‘inventions’ (Hobsbawm and Ranger, 1983) that date, in the main, from the late Victorian period: Prince Albert originated the ‘typical’ English Christmas, the Cup Final has been staged at Wembley only since the 1920s, pubs are carefully designed to evoke nostalgia for idealized times and the beer is produced by modern methods, while the monarchy has been subject to radical change and reconstitution throughout its chequered history, the present lineage changing its name to House of Windsor from Saxe-Coburg-Gotha during the First World War to divert attention from their German relations.

There is no authenticity; there are only (inauthentic) constructions of the authentic. Take, for instance, the tourist experience (Urry, 2001). Brochures advertise an ‘unspoiled’ beach, ‘must-see’ sites, a ‘distinctive’ culture, ‘genuine’ locals and a ‘taste of the *real*’. But the experience of tourism is demonstrably inauthentic, a carefully crafted artifice: in Greece it is the taverna on the beach – with well-stocked fridge full of continental beers; the ancient and evocative music – the most popular composer, Mikis Theodorakis, was born in 1925 and his famous *Zorba the Greek* music composed in the 1960s; and traditional dancing involves instructing waiters to ‘allow the tourists to participate’; the authentic Greek cuisine – stored in the freezer and combined to appeal to the clients’ palates while retaining a hint of the ‘local’ (moussaka and chips); the obliging locals who are uncorrupted by metropolitan ways – and trained in hotel schools; the special tourist attractions – developed and hyped for tourist consumption.

The ‘tourist bubble’ is created to ensure that experiences are enjoyable, that the visitors will avoid, for example, the smells and insanitary conditions endured by many of the indigenous (air conditioning is a *sine qua non*). Even were there an authentic location in the first place, the very appearance of tourists intrudes and necessarily changes what was originally there, leading chiefly to ‘staged authenticity’ (MacCannell, 1976). Further, tourism is big business and it acts accordingly: aeroplanes must be filled, hotel rooms booked (and of a standard to meet the expectations of visitors from affluent societies, hence showers and clean bed linen) and people given a good time. All this requires arrangements, artifice, inauthenticity.

Inauthenticity is not just the province of overseas nations such as Italy and France which have a distinct interest in perpetuating tourist imagery. It is a pervasive feature of Britain, which presents an array of museum sites, architecture and amusements not merely to sustain a massive tourist industry, but also to express its 'real history' (Hewison, 1987). The 'heritage industry' is centrally involved in this creation and development of Britain's past, dedicated to the task of constructing history, rebuilding and refurbishing it in the name of evoking it 'as it really was'. Consider here examples such as the Beamish Industrial Museum in County Durham, the Jorvik Centre in York, Ironbridge and the Oxford Story. How ironic, assert the postmodernists, that so many of these tourist attractions have been arranged with a claim to make visible life 'as it really was' (right down to smells from bygone days), given that their construction unavoidably undermines claims to authenticity.

It needs to be stressed, too, that these are not in some way more inauthentic than other, perhaps older, heritage centres such as stately homes. The Tower of London, the Imperial War Museum and Stonehenge are quite as inauthentic because we can never reclaim an authentic past. This is not just because these require and offer so much of the contemporary as to subvert authenticity (modern methods of preservation, motor transport, electricity, professional guides and so on), but also because all attempts to represent history are interpretations – hence constructions – of the past and are thereby inauthentic. Consider, for example, the disputes which characterize the discipline of history: is it to be an all-male account or will it include women's experiences (herstory), is it to be an imperial history of wars and conquest, is it Anglocentric or European in outlook, covering a short period or concerned with the *longue durée*, is it to be social or political in emphasis, a history of kings and queens or one of the common people? Bluntly, the very variety of histories defies the ambition of the modernist scholar to relate a 'true' history, something that is subversive of the aspirations of a very great deal of the Heritage enterprise.

The postmodern era thus rejects all claims for the 'real': *nothing* can be 'true' and 'authentic' since everything is a fabrication. There is no 'real England', no 'real history', no 'real tradition'. Authenticity is nothing more than a (inauthentic) construction, an artifice. This being so, it follows that the recurrent and urgent question delivered by modernists – 'What does this mean?' – is pointless. Behind every such question is an implicit idea that *true meaning* can be perceived, that, for instance, we may discover what the Bible really means, what architects mean when they design a building in a particular manner, what it really meant to live during the Napoleonic Wars, what that girl means to suggest when she wears that sort of frock.

But if we know that there is no true meaning but only different interpretations (what Roland Barthes called *polysemous* views), then, logically, we can jettison the search for meaning itself. To the postmodern temper the quest is vain, but, far from despairing at this, the suggestion is that we abandon it and instead take pleasure in the *experience of being*. For instance, you may not know how to make sense of a particular hairstyle, you may be bemused by each of your friends seeing it in different ways, but what the heck – enjoy the view without yearning for it to have any special meaning. The French have a word for this, *jouissance*, an antecedent of

which is in Kant's *Critique of Judgement* (1972 [1790]), where he distinguishes the *sublime* as the pleasure felt about something that comes before its identification as *beautiful*. But the central idea to the postmodernist is that where everyone knows that there is an infinity of meanings, we may as well give up on the yearning for any meaning. As the graffiti has it, forget trying to work out what Elvis was trying to say in *Jailhouse Rock*, it's 'only rock and roll', so get up on your feet and feel the beat.

Moreover, intellectuals ought not to concern ourselves about this abandonment of meaning. Ordinary people themselves recognize that discovering the 'true meaning' is an unattainable dream as clearly as we do. They, too, are aware of multiple meanings being generated for every situation, of the untenability of finding the authentic element. Accordingly, the people do not get uptight about finding out the real sense of the latest movie: they are quite content to enjoy it for what it was to them – fun, boring, diverting, an escape from housework, a chance to woo one's partner, a night out, something to talk about . . .

Modernists are the only ones to worry about 'what it all means'; postmodern citizens gave up on that earnestness long ago, content to revel in the manifold pleasures of experience. Similarly, postmodern tourists know well enough that they are not getting an authentic experience; they are cynical about the local boutiques selling 'genuine' trinkets, about the fervent commercialism of the tourist trade, about the *kamakias* parading on the beaches on the lookout for sexual liaisons, about the artificiality of an out-of-the-way location that yet manages to incorporate the latest video releases, pop music and drinks at the discos. Tourists know full well that it is all a game, but – knowing this – are still content to go on holiday and take part in the staged events, because what they want while on vacation is a 'good time', is 'pleasure', and hang any *angst* about 'what it all means' and whether or not the food, people and milieu are authentic (Featherstone, 1991, p. 102).

My earlier observation that postmodernism places much emphasis on differences – in interpretation, in ways of life, in values – is in close accord with the abandonment of belief in the authentic. For instance, the postmodern outlook encourages rejection of elitisms that proclaim a need to teach children a unifying and enriching 'common culture' or the 'great tradition' of literature. All this and similar such protestations are dismissed as so much ideology, instances of power being exercised by particular groups over others. However, postmodern culture goes further than this: it contends that those who fear what they regard as that fragmentation of culture – a collapse into disconnected bits – if people are not taught to appreciate, say, the literature and history which tells us 'what we are' and thereby what brings us as citizens together, should be ignored. On the one hand, this is because the identification of a 'common culture', whether in the Arnoldian sense of the 'best that is thought and said' or simply in the sense of 'all that is of value to our society', is usually expressive of power which can exclude and impose on many groups in our society (the 'great tradition' in English literature may not have much appeal for ethnic minorities or the young in contemporary Britain). On the other hand, however, postmodernists argue that it also presumes that people have difficulty living with fragmentation, that if things are not consistent and whole we will experience alienation, anxiety and depression.

But the postmodern outlook positively thrives on differences and hence prospers too with a fragmentary culture. What is wrong with, for example, reading a bit of Shakespeare as well as listening to reggae music? For a long time cultural custodians have presumed to tell people what and how they ought to read, see and hear (and to feel at least a twinge of guilt when they deviated from the prescribed works and judgements). Behind this moral stewardship is a typically modernist apprehension that fragmentation is harmful. Against this, postmodern culture, having spurned the search for 'true meaning' ('Englishness means you are familiar with and appreciate *this* history, *these* novels, *that* poetry'), suggests that fragmentation can be and is *enjoyed* without people getting much vexed about conflicting messages or values. The outcome is celebration of a plurality of sources of *pleasures* without meaning: the neon lights, French cuisine, McDonald's, Asiatic foods, Bizet, Madonna, Verdi and the Arctic Monkeys. A promiscuity of different sources of pleasure is welcomed.

Furthermore, it will be understood that behind the modernist apprehension about a fragmentary culture lurks the fear that the self itself is under threat. Such fear presupposes that there is in each of us a 'real self', the authentic 'I', which must be consistent, unified and protected from exposure to widely diverging cultural signals. How, for instance, can true intellectuals sustain their sense of self if they read Plato and then go dog racing? How can major thinkers immerse themselves in their discipline and simultaneously support Tottenham Hotspur Football Club? How can Christians simultaneously practise their religion and enjoy pornography? How can honourable people cheat at cricket? How can the integrity of the self be maintained if the same person is exposed to role models as diverse as Clint Eastwood, Lionel Messi and Woody Allen?

Rather than get wrapped up trying to unravel such contradictions, postmodern culture denies the existence of an essential, true, self. The postmodern temper insists that the search for a 'real me' presupposes an underlying meaning, an authentic being, which is just not there – and hence not worthy of pursuit. Instead, the advocacy is to live with difference, in the wider society and within one's being, and to live this without anxiety about meaning, jettisoning restrictive concepts like 'integrity' and 'morality', and opting instead for pleasure. It is only intellectuals, goes the postmodern refrain, who worry about fragmentation of the self. The rest of us are happy enough to have a good time and do not bother to get upset because a few eggheads believe that our 'true self' might find itself in turmoil.

As befits a culture which revels in artifice and surface phenomena, postmodernism is most closely associated with *urban life*. Postmodern culture celebrates superficiality, spurning the in-depth analysis that seeks 'truth' in favour of the quick changing, the playful and the uncertainties of fashion. No location is more in tune with this than the urban, the prime site of artificiality, clashes of style, openness to change and eclecticism, diversity and differences, lack of fixity, constant stimulation of the senses, mixtures of cultures and strangers who bring together varied experiences and outlooks which destroy certainties and bring new tastes and sources of enjoyment. Related is postmodern's acknowledgement of speed, the sheer pace and turmoil of incessant and accelerated culture, that intrudes into consciousness and destabilizes constantly. Paul Virilio (1998) coined the term *droneology* to identify this situation: destabilizing, unceasing, impossible to resist.

Finally, and something which is consistent with its hostility towards those who seek to reveal the 'real meaning' of things, postmodern culture lays stress on the creativity and playfulness of ordinary people. Among modernist thinkers there is a tendency towards offering determinist explanations of behaviour. That is, it is characteristic of modernist analyses that they present accounts of actions which privilege their own explanations rather than those of the people involved, as if they alone are capable of discerning the real motivations, the fundamental driving forces, of those whom they study. Consider, for example, Freudian accounts which see sexuality behind so much action – whatever those studied may feel; or Marxist examinations of the world which contend that consciousness is shaped by economic relationships – whatever else subjects might say; or feminist accounts of women's experiences which frequently suggest that the analysts have privileged access to what women 'really need' – whatever the women they study may suggest.

As we have seen, there is from postmodernists a repeated assertion that intellectuals have no more right to recognize 'truth' than the man or woman in the street. Similarly, the fear among intellectuals that the people are being duped, that they are being led away from the 'truth' by manipulative politicians, trashy entertainment or by the temptations of consumerism, is at once an insufferable arrogance (by what right can intellectuals claim to discern 'truth' when their own record is, at the least, dubious and when intellectuals contest the 'truth' of other intellectuals?) and a nonsense given the capacities of ordinary people to see, and to create, just as effectively as any intellectual. In a world where there are only versions of truth, people have an extraordinary capacity to generate an anarchic array of meanings and, prior even to meaning, alternative *uses* of things and experiences that they encounter (de Certeau, 1984).

It will not surprise readers who have gone this far to learn that a *bête noire* of postmodernism is the claim to identify the *essential* features of any phenomenon. 'Essentialism' provokes the postmodernist to recite the familiar charges against arrogant modernists, presumptions: that the analyst can impartially cognize the 'truth', that features hidden beneath the surface of appearances are open to the scrutiny of the privileged observer, that there is a core meaning which can be established by the more able analyst, that there are authentic elements of subjects which can be located by those who look hard and long enough.

Key elements of postmodernism as an intellectual and as a social phenomenon may be summarily stated:

- the rejection of modernist thought, values and practices;
- the rejection of claims to identify 'truth' on grounds that there is only versions of 'truth';
- the rejection of the search for authenticity since everything is inauthentic;
- the rejection of quests to identify meaning because there is an infinity of meanings (which subverts the search for meaning itself);
- the celebration of differences: of interpretations, of values, and of styles;
- an emphasis on pleasure, on sensate experience, on *jouissance* and the sublime;
- delight in the superficial, in appearances, in diversity, in change, in parody, irony and pastiche;

- recognition of the creativity and imagination of ordinary people which defies determinist explanations of behaviour.

Postmodernism and information

What has this to do with information and the Information Society? It turns out a lot. One way comes from the postmodern insistence that we can know the world only through *language*. While Enlightenment thinkers have subscribed to the idea that language was a tool to describe a reality apart from words, the postmodernist asserts that this is a 'myth of transparency' (Vattimo, 1992 [1989], p. 18) because it is blind to the fact that symbols and images (i.e. information) are the only 'reality' that we have. We do not see reality *through* language; rather, language *is* the reality that we see. As Michel Foucault put it, 'reality does not exist . . . language is all there is and what we are talking about is language, we speak within language' (quoted in Macey, 1993, p. 150).

An illustration of some consequences of this starting point at which 'language is never innocent' (Barthes, 1967 [1953], p. 16) can be found in literary criticism. Once upon a time critics took it as their task to discern, say, ways in which we could get a better picture of Victorian capitalism through reading *Dombey and Son*, or to examine the ethos of masculinity evidenced in the short stories of Ernest Hemingway or to assess how D. H. Lawrence's upbringing shaped his later writing. The presupposition of critics was that one could look *through the language* of these authors to a reality behind the words (to a historical period, an ideology, a family background) and the aspiration of these critics was for themselves to elucidate this function as unobtrusively – as transparently, hence objectively – as was possible. To such intellectuals *clarity* of writing, from both artist and critics, was at a premium, since the prime task was to look through the language to a reality beyond.

Roland Barthes (1963, 1964) caused a fuss in the early 1960s inside French literary circles when he attacked such assumptions in debate with a leading literary critic, Raymond Picard. Barthes offered a reading of dramatist Jean-Baptiste Racine (1639–99), an icon of classical French literature, which objected, first, to the supposition that the meaning of Racine's words is inherently clear and, second, insisted that all critical approaches drew upon *metalanguages* (Freudianism, Marxism, structuralism, etc.) in their commentaries. Taken together these subvert any ambition of critics themselves to enhance the text by, as a rule, making more comprehensible the historical context of its production or unlocking ways in which the author's upbringing is found in the fiction (Barthes, 1966). If the author's writing is so clear, why is the critic offering historical context or biography? And when the critic presents contact or biography, unavoidably they bring in a meta-language of sorts (an approach to history, a perspective that places weight on upbringing). The centrepiece of Barthes's objection here is that *language is not transparent*: authorship is not about looking *through* language to a phenomenon *out there*, but is a matter of the *making* of languages, first by the author, then by the critics.

The pertinence of this literary debate to our concern with postmodernism becomes evident when we realize that Barthes and others extend their principle that language is all the reality we know to a wide variety of disciplines, from history to social science. Across a wide range they endeavour to analyse the 'phrase-regime' (Lyotard) which characterizes particular subjects. As such, they query the truth claims of other intellectuals and suggest alternative – postmodern – approaches to study which examine subjects as matters of language (or, to adopt the favoured word, *discourses*).

Moreover, it is significant, too, that Barthes (1979) applied his approach to an enormous variety of phenomena in the contemporary world, from politicians, wrestlers, movies, fashion, cuisine, radio and photography to magazine articles, always discussing his subjects as types of language. Whether he writes about Greta Garbo's Face, the Eiffel Tower or Einstein's Brain, Barthes centres on the signs and signification involved. Following this route, we can see that, if reality is a matter of language/discourse, everything that we experience, encounter and know is informational. Nothing is transparent or clear since everything is constructed in language and can be understood only in language. In sum, one relevance of postmodernism to considerations of information is the perception that we do not live in a world about which we simply have information. On the contrary, *we inhabit a world that is informational*.

Jean Baudrillard

Jean Baudrillard (1929–2007) is the best-known postmodern commentator, with a journal, the *International Journal of Baudrillard Studies*, established in 2004 in his honour. Baudrillard elaborates insights found in the writing of thinkers such as Roland Barthes (1915–80) and discusses them expressly in relation to developments in the informational realm. One can get a better appreciation of the connections between postmodernism and information by highlighting some of his themes and insights.

It is the view of Baudrillard that contemporary culture is one of *signs*. Nowadays just about everything is a matter of signification, something obviously connected with an explosive growth in media, but related also to changes in the conduct of everyday life, urbanization and increased mobility. One has but to look around to understand the point: everywhere signs and modes of signification surround us. We wake to radio, watch television and read newspapers, spend a good part of the day enveloped by music emitting from various devices, shave and style ourselves in symbolic ways, put on clothes that have sign content, decorate our homes with symbolic artefacts, add perfumes to our bodies to give off (or prevent) particular signals, travel to work in vehicles which signify (and which contain within them systems that allow the uninterrupted transmission of signs), eat meals which are laden with signification (Chinese, Italian, Greek . . .) and pass by and enter buildings which present signs to the world (banks, shops, schools).

To be sure, all societies require the use of signs, but no one can doubt that nowadays we swim in a much deeper sea of signification than ever. While pre-industrial societies had complex status rankings, elaborate religious ceremonies

and gaudy festivals, the rigours of subsistence and the fixity of place and routine delimited the use of signs. Nowadays we no longer mix with the same people in the same places in the same way of life. We interact now with strangers to whom we communicate parts of ourselves by signs – as a passenger on a bus, or as a client in a dentist's surgery, or as a customer in a bar. At the same time we receive messages from anywhere and everywhere in our newspapers, books, on the radio, iPods, mobile phones, television or the internet.

It is this which is Jean Baudrillard's starting point: today life is conducted in a ceaseless circulation of signs about what is happening in the world (signs about news), about what sort of identity one wishes to project (signs about self), about one's standing (signs of status and esteem), about what purposes buildings serve (architectural signs), about aesthetic preferences (signs on walls, tables, sideboards) and so on. As John Fiske (1991) observes, that our society is sign-saturated is indicative of 'a categorical difference . . . between our age and previous ones. In one hour's television viewing, one is likely to experience more images than a member of a non-industrial society would in a lifetime' (p. 58).

However, the 'society of the spectacle' (Debord, 1977) has not, after all, escaped the attention of other thinkers who would resist the postmodern label and suggestions that sign saturation announces a systemic change. Baudrillard and like-minded thinkers go much further than just saying that there is a lot more communication going on. Indeed, their suggestion is that there are other characteristics of postmodern culture which mark it out as a break with the past.

We can understand these better by reminding ourselves how a modernist might interpret the 'emporium of signs'. Thinkers such as Herbert Schiller and Jürgen Habermas, whom we encountered in Chapters 8 and 9, acknowledge the explosive growth of signification readily enough, but they insist that, if used adroitly, it could serve to improve the conditions of existence. Such approaches perceive inadequacies in signs that, if rectified, could help to facilitate a more communal society or more democratic social relationships. What is evident in such modernist interpretations is that critics feel able to identify distortions in the signs that, by this fact, are in some way *inauthentic*, thereby holding back the possibility of progressing to more genuine and open conditions. For example, it is usual in such writers to bemoan the plethora of soap operas on television on grounds that they are escapist, trivial and profoundly unreal depictions of everyday lifestyles. Tacit in such accounts is the view that there are more authentic forms of drama that may be devised for television. Similarly, modernist scholars are at pains to identify ways in which, say, news media misrepresent real events and issues – and implicit in such critiques is the idea that authentic news coverage can be achieved. Again, a modernist perspective on fashion might raise concerns about the young being misled in their choices of styles by inappropriate role models and commercial venality – and, again, there is in evidence here a conviction that more authentic fashions can be found.

Baudrillard, however, will have neither this hankering after 'undistorted communication' nor any yearning for the 'authentic'. In his view, since everything is a matter of signification it is unavoidably a matter of artifice and inauthenticity, because this, after all, is what signs are. Modernist critics will insist that there is

some reality behind signs, perhaps shrouded by unreliable signs but nonetheless real, but to Baudrillard there are only signs. As such, one cannot escape inauthenticity and there is no point in pretending that one can. For example, viewers of television news may watch with the presumption that the signs indicate a reality beyond them – ‘what is going on in the world’. But on a moment’s reflection we can appreciate that the news we receive is a version of events, one shaped by journalists’ contacts and availability, moral values, political dispositions and access to newsmakers. Yet, if we can readily demonstrate that television news is not ‘reality’ but a construction of it – a task frequently undertaken by academic researchers and evident to anyone who cares to review recordings of news with benefit of hindsight – how is it possible that people can suggest that beyond the signs is a ‘true’ situation? To Baudrillard the ‘reality’ begins and ends with the signs on our television screens. And any critique of these signs offers, not a more authentic version of the news, but merely *another* set of signs that presume to account for a reality beyond the signs.

Baudrillard (1983a) takes this insight a great deal further by asserting that nowadays everybody knows this to be the case, the inauthenticity of signs being an open secret in a postmodern culture. In other words, when once it might have been believed that signs were *representational* (in that they pointed to some reality beyond them), today everybody knows that signs are *simulations* and nothing more. For example, one may imagine that advertisements might represent the qualities of particular objects in a true way. That they manifestly do not is a frequent cause of irritation to modernist critics, who claim to reveal the distortions of advertisements which suggest, say, that a hair shampoo brings with it sexual allure or that an alcoholic drink induces sociability. The modernist who exposes the tricks of advertisers (false associations, depth psychology and so on) works on two assumptions: first, that he or she is privileged to recognize the deceptions of advertisers and this is something to which most consumers are blind, and, second, that an authentic form of advertising in which the advertisement genuinely represents the product is capable of being made.

Baudrillard’s retort is that ordinary people are quite as knowledgeable as modernist intellectuals, but they just do not bother to make a fuss about it. Of course they realize that advertisements are not the ‘real thing’, but just make-believe, just simulations. *Everybody*, and not just intellectuals, knows that Coca-Cola does not ‘teach the world to sing’, that Levi jeans won’t transform middle-aged men into 20-year-old hunks or that Wrigley’s chewing gum will not lead to thrilling sexual encounters. As such, we ought not to get concerned about advertising since the ‘silent majorities’ (Baudrillard, 1983a) are not much bothered by it.

That said, Baudrillard does assert that people do enjoy advertisements, not for any messages the advertiser might try to convey, and certainly not because they might be persuaded to go out to buy something after watching them, but simply because advertisements can bring *pleasure*. Advertising ‘acts as spectacle and fascination’ (1983a, p. 35) – just that. Who knows, who cares, what Ford, Guinness or HSBC advertisements signify? We may – or we may not – just enjoy the experience of looking at the signs.¹

Similarly, consider the modernist anxiety Habermas expresses with his concern about the packaging of politics in contemporary democracies. To such as Habermas the manipulation of political information is deplorable, its meticulous preparations by the politicians and their PR advisors for media interviews reprehensible. The appeal of the critics here, explicit or not, is that politicians ought to be honest and open, truthful and plain-speaking, instead of hiding behind misleading and mendacious media 'images'.

Baudrillard's response to this modernist complaint would take two forms. On the one hand, he would insist that the dream of signs that represent politics and politicians in an accurate way is a fantasy. Unavoidably the media will be able to show only certain issues, particular personalities and a limited range of political parties. If for no other reason, the limitations of time mean that political coverage is restricted to certain issues and political positions. Add to that the disposition of politicians to pressure to have the most favourable arguments for their own positions presented, and it is easy to understand that the difficulties of exactly representing politics through media are insuperable. In Baudrillard's view, the fact that the media must put together a presentation of politics for the public means that any alternative presentation can be nothing but just another simulation. In an era of electronic media we cannot have anything other than simulated politics.

On the other hand, Baudrillard would assert that, since everyone knows this to be the case, no one gets much bothered since the signs are ignored. We all know that they are artificial, so we just enjoy the spectacle (or not) and ignore the messages, knowingly reasoning that 'it's just politicians on the television again'.

Logically this knowledgeability of the public heralds what one might describe as the death of meaning. If people realize that signs are but simulations, and that all that can be conceived are alternative simulations, then it follows that anything – and nothing – goes. Thus we arrive at Baudrillard's conclusion that 'we manufacture a profusion of images *in which there is nothing to see*. Most present-day images – be they video images, paintings, products of the plastic arts, or audio-visual or synthesizing images – are literally images in which there is nothing to see' (Baudrillard, 1990 [1979], p. 17). If the 'masses' recognize that signs are just simulations, we are left with a profusion of signs which just do not signify. We have signs without meaning, signs that are 'spectacular' (Baudrillard, 1983a, p. 42), things to be looked at, experienced and perhaps enjoyed, but signs without significance. This is the post-modern world.

The examples I have used to illustrate Baudrillard's conception of postmodern culture have mostly come from media, the obvious domain of signification and an area that most readily springs to mind when one thinks of an information explosion. However, it is important to realize that Baudrillard contends that the society of spectacle and simulation reaches everywhere, and much deeper even than an enormously expanded media. To better appreciate this, let us recall that everything nowadays is a sign: clothing, body shape, pub decor, architecture, shop displays, motorcars, hobbies – all are heavily informational. Again, modernist writers tend to examine these things in terms of an underlying or potential authenticity, for example that there is a natural body weight for people of a given size and build, or that shop displays can be set out in such a way that customers can find

what they want in a maximally convenient and unobtrusive way. However, Baudrillard rejects these approaches on the familiar grounds that the modernist search for the authentic is misconceived since all these signs are *simulations rather than representations*.

What he means by this is that, for instance, body shape now is a matter of choice and that people can design the signs of their bodies. If one considers the plasticity of body shape today (through diets, exercise, clothing or even through surgery), one gets an idea of the malleability of the human body. The modernist could respond to this in either of two ways: either the obsession with body shape is condemned as leading people away from their 'true' shapes (and bringing with it much anxiety) or people are seen as having an inappropriate body shape to sustain their 'true' health (and ought perhaps to eat less and more appropriate kinds of food). Either way, the modernist appeal is to an authentic body shape beyond the distortions induced by inappropriate role models or over-indulgers who ignore expert advice on the relations between diet and health.

But Baudrillard's response has to be that there is no authentic body shape, not least because nowadays we are all on a permanent diet (in that we all selectively choose from a cornucopia of foods), that experts disagree among themselves about the linkages between health and body shape, and that, in an era of choices, there is a wide variety of body shapes to be chosen. In these circumstances there is just a range of inauthentic body shapes, just simulations which represent neither the 'true' /ideal body shape nor a deviation from it. They just are signs without significance. The test of this thesis is to ask: what does body shape signify nowadays? And to Baudrillard its meanings have collapsed, precisely because people know that body shape signs, of whatever kind, are all inauthentic. What, for instance, does a slim body signify today? Beauty? Anorexia? Narcissism? Health? Obsession? Body shape is losing its power to signify. Having done so, it is a sign to be experienced rather than interpreted.

Baudrillard is echoing here a strong social constructivist view of signs. That is, if phenomena are socially created, they are simulations with no 'reality' beyond themselves. This accounts for Baudrillard's claim that Disneyland does not represent, symbolically, the real United States that is outside the entertainment centre (a typically modernist argument, that Disney mythologically represents American values, whereby visitors are surreptitiously exposed to ideology while they're busy having fun). On the contrary, says Baudrillard, Disney is a means of acknowledging the simulation that is the entirety of modern America: *everything* about the United States is artifice, construction and creation, from small-town main streets to city-centre corporate offices. This, proclaims Baudrillard (1983b), is all the *hyper-real*, where signs refer to nothing but themselves. As he arrestingly remarks:

Disneyland is presented as imaginary in order to make us believe that the rest is real, when in fact all of Los Angeles and the America surrounding it are no longer real, but of the order of the hyperreal and of simulation.

(Baudrillard, 1983b, p. 25)

In the postmodern era distinctions between the real and the unreal, the authentic and the inauthentic, the true and the false have collapsed: when all is artifice such certainties have to go. Thus the 'historic' town, the 'seaside resort' and the 'fun' city are hyper-real in that they have no relationship with an underlying reality. They are fabrications with no authenticity outside of their own simulations. As such, it is fatuous to go, with the modernist, in search of the 'real' that is imagined to be found in the Tower of London or in Blackpool Tower because there is no authenticity behind these signs. Quite the contrary, these inauthentic monuments are all that there is. They are the hyper-real, 'the generation by models of a real without origin or reality' (Baudrillard, 1988, p. 166).

In this context Baudrillard makes a related point that builds on an argument first made in the 1930s by Walter Benjamin (1970) when he reflected on consequences of the 'mechanical reproduction' of art. Benjamin contended that the 'aura' which art once got from its uniqueness (there is only one Michelangelo's *David*, the Sistine Chapel's ceiling by Michelangelo cannot be removed from the Vatican building) was shattered with the advent of photography because it was reproducible outside its original contexts. Baudrillard goes further than this, inventing the term 'simulacrum' to identify signs that are *copies without an original*. For instance, if you download a recording of a live music concert, you know that it has been 'mixed' and 'remastered' in studios that render connections with the actual performance tenuous; similarly, there is no original for a Photoshopped image. In the era of the 'simulacrum' what sense does it make to think any longer in terms of the real or original?

It follows that, where 'the real is abolished' (Baudrillard, 1983a, p. 99), there the meaning of signs is lost (in Baudrillard's terminology, it is 'imploded'). Nonetheless, we ought not to worry about this, because we always have to recall the postmodern nostrum that audiences are subversive of messages anyway. Modernists get themselves into a lather about 'couch potato' television viewers and tourists who visit historical sites, take a photograph and then, having 'done it', go without appreciating the 'real thing'. But how much this underestimates the creativities of ordinary folk – the television viewer is in fact constantly active, switching channels with enthusiasm, chatting to pals, using the telephone or shouting out irreverent and irrelevant comments, and the tourist is doing all sorts of things when walking round the museum, daydreaming, wondering why the guide looks like a relative, planning dinner, chatting to other visitors, musing whether diplodocus ever got toothache. Given such resistance, as it were, to the intended signs, we can conclude that postmodern audiences are a far cry from the 'cultural dopes' modernists so feared, so far indeed that they see and hear *nothing*, just experience the spectacles which characterize the contemporary.

Gianni Vattimo

Italian philosopher and one-time member of the European Parliament Gianni Vattimo (born 1936) contends that the growth of media has been especially important in heralding postmodernism. The explosive growth of information from

here, there and everywhere, which has been a feature of television, cable, video and now the internet, has undermined modernist confidence in 'truth' and 'reality'. Vattimo suggests that, while on the intellectual front Enlightenment tenets have been successfully challenged by, for example, alternative historical interpretations, so too has the spread of media undermined any more general commitment to a single way of seeing (Vattimo, 1992 [1989]).

It used to be common among modernist thinkers, of Left or Right, to bemoan the development of 'mass society', where people would become herd-like, indoctrinated by media which put out a diet of homogeneous entertainment and propaganda. Readers familiar with the writing of Frankfurt School Marxists will recognize this pessimistic vision, but conservative critics such as T. S. Eliot and F. R. and Q. D. Leavis felt much the same about the likely effects of film, radio and mass circulation newspapers (Swingewood, 1977).

Against this, Vattimo argues that the proliferation of media has given voice to diverse groups, regions and nations, so much so that audiences cannot but encounter many 'realities' and 'perspectives' on issues and events. Nowadays 'minorities of every kind take to the microphones' (Vattimo, 1992 [1989], p. 5) and thereby they disseminate worldviews which lead to a collapse in notions of the 'true'. From this comes freedom because, says Vattimo, the belief in reality and its associated persuasive force ('You must do this because it is true') is lost. How can you believe that any more when every day media expose you to a plurality of competing interpretations of events and competing definitions of what events are worth thinking about?

Differences come to the forefront of everyone's attention as multiple realities (sexual, religious, cultural, ethnic, political and aesthetic) get time on the airwaves. Bombarded by the very diversity of signs, one is left confused and shaken, with nothing sure any longer. The result, however, is actually liberating and definitively postmodern, with experience taking on the 'characteristics of oscillation, disorientation and play' (Vattimo, 1992 [1989], p. 59). Here Vattimo finishes up in much the same position as Baudrillard. A multiplicity of signs paradoxically subverts the sign's capacity to signify and people are left with spectacle, non-meaning and freedom *from* truth. Reminding oneself that Vattimo wrote this before the widespread availability of the internet, and, with this, the advent of chat groups, blogs, instant news and solicitations of a spectacular range, surely adds credence to his propositions.

Moreover, it chimes with an emergent feature of democracy that we considered in Chapter 9: democracy may be developing an ethos of the tolerance of differences (of religion, of aesthetics, of lifestyles, of interests), wherein diversity is a distinguishing feature, which is tolerated by citizens. Where minorities get a voice, the majority may come to be composed by many minorities who have the opportunity to speak out and link with like-minded souls while remaining part of the wider society.

Mark Poster

Mark Poster (1942–2012), an American based at the University of California, Irvine, was a long-time student and translator of Baudrillard. He forwarded the

proposition that the postmodern age is distinguished from previous societies because of what he designated a 'mode of information' (Poster, 1990). This suggestion of fundamental change emanating from developments in information is especially interesting both because of its elaboration of themes found in Baudrillard and because of its emphasis on the novelty of the postmodern era.

Poster's claim is that the spread of information technologies, and hence electronic-mediated information, has profound consequences for our way of life and, indeed, for the ways in which we think about ourselves, because it alters our 'network of social relations' (Poster, 1990, p. 8). Elaborating this principle, he proposed a model of change based on different types of 'symbolic exchange' (p. 6) which has three constituents:

- The era of *oralism*, when interaction was face to face. Then the way of life was fixed and unchanging, the self embedded in the group, and signs *corresponded* to this settled way of life, with symbolic exchange a matter of articulating what was already known and accepted by the community.
- The era of *written exchange*, when signs had a *representational* role and in which the self was conceived to be rational and individually responsible.
- The era of *electronic mediation*, when signs are matters of informational *simulations*, with their *non-representational* character being critical. Here the self is 'decentred, dispersed, and multiplied in continuous instability' (Poster, 1990, p. 6), swirling in a 'continuous process of multiple identity formation' (Poster, 1994, p. 174), since the 'flow of signifiers' is the defining feature of the times rather than signs which indicate a given object.

Poster suggests that once people said and thought what was expected of them, later they developed a strong sense of autonomy and used writing especially to describe what was happening outside them in the world, and then, in the postmodern present, the spread of simulation has shattered previous certainties. No longer able to believe in a 'reality' beyond signs, the self is left fragmented, unfocused and incapable of discerning an objective reality. Despite the dislocation this brings about, Poster sees it, with Baudrillard and Vattimo, as emancipatory because the 'crisis of representation' (Poster, 1990, p. 14) results in a plethora of signs which do not signify, something which at last frees people from the tyranny of 'truth'.

Poster's (2001) support for postmodernism's resistance to 'truth regimes' sits comfortably with his enthusiasm for new technologies, especially for the internet. In his view the 'netizen', able to navigate without hindrance and at will, supersedes and improves upon the 'citizen', whose rights – and obligations – were enforced by nation states in the modern era and were used to impose Western values on the rest of the world. To Poster (2006) the Age of Enlightenment that promoted the rights and duties of the citizen is a Western discourse that bolstered colonialism and imperialism. Now that globalization subverts nation states, the internet promises further liberation, and a core element of this freedom is rejection of the claims to rights of citizenship.

Jean-François Lyotard

Jean-François Lyotard (1924–98) has a good claim to being the first to label post-modernism. His short book *The Postmodern Condition* (1979) was subtitled a *Report on Knowledge*, indicating its origins as a commissioned evaluation of the influence of computerized technologies on science. This role as a forerunner of much speculation on the social impact of technologies is especially appropriate for discussion of the Information Society since it arrives at similar conclusions to such as Daniel Bell, yet approaches matters from a different starting point and regards as axial not changes in occupations or economic worth, but the emergence of a new ‘postmodern condition’.

Lyotard’s work has been particularly concerned to demonstrate how truth claims have been subverted by postmodern developments. Moreover, Lyotard goes about his task by centring attention on informational trends, arguing that it is changes here which give rise to the scepticism towards truth claims which characterizes postmodern culture. In addition, Lyotard provides a revealing contrast to the previous three thinkers reviewed in this chapter since he arrives at the same end while approaching from a different starting point. That is, while Baudrillard, Vattimo and Poster give emphasis to the rapid growth in signs (especially in media), Lyotard starts his analysis with a concern for changes in the role and functions of information and knowledge at a more general and simultaneously deeper level.

This French philosopher argued that knowledge and information are being profoundly changed in two connected ways. First, increasingly they are produced only where they can be justified on grounds of efficiency; to adopt Lyotard’s terminology, where a *principle of performativity* prevails. This means that information is gathered together, analysed and generated only when it can be justified in terms of utility. Second, Lyotard argues that knowledge/information is being more and more treated as a *commodity*. Endorsing a theme we have already seen to be prominent in the work of Herbert Schiller, he contends that information is increasingly a phenomenon that is tradable, subject to the mechanisms of the market that have a determining effect on judging performativity.

The consequences of these twin forces are sufficient to announce the emergence of a postmodern condition. First, the principle of performativity when applied means that information/knowledge that cannot be justified in terms of efficiency will be downgraded or even abandoned. For example, aesthetics and philosophy cannot easily be justified in terms of performance, while finance and management are straightforwardly defended. Inexorably the former suffer demotion and the latter promotion, while within disciplines research in areas that are defensible in terms of use will be treated more favourably than others. For instance, social science investigations of technology transfer have practical implications for markets and hence are seen as worthy of support from research funding bodies such as the Economic and Social Research Council (ESRC), the ‘mission’ of which now requires that the research it sponsors contributes to the competitiveness of industry. Conversely, the social scientist whose interest is in the exotic or impractical (as judged by performativity criteria) will be sidelined. As a government

minister, Norman Tebbit, put it in the early 1980s when called upon to justify switching funds from arts, humanities and social sciences to the more practical disciplines, money was to be taken away 'from the people who write about ancient Egyptian scripts and the pre-nuptial habits of the Upper Volta valley' and given to subjects that 'industry' thought useful. Today this is the orthodoxy as regards funding university research.

Second – and a sign of the collapse of modernism – knowledge development is shifting out of the universities, where, traditionally, a cloistered elite had been ensconced with a vocation to seek the 'truth'. Challenging the dominance of the traditional university is an array of think tanks, research and development sections of private corporations and pressure groups that generate and use information/knowledge for reasons of efficiency. For instance, commentators speak of the 'corporate classroom' that is as large and significant as universities and colleges inside the United States. It is easy to list a roll-call of some of the major players: Bell Laboratories, IBM's R&D sections and Pfizer's employment of scores of PhDs appear to many observers to be 'just like a university' – except that they have different priorities which guide their work.

Moreover, that personnel move with increasing ease between universities and these alternative knowledge/information centres indicates that higher education is being changed from within to bring it into line with performativity measures. Any review of developments in higher education in any advanced economy highlights the same trends: the advance of the practical disciplines and the retreat of those that find it hard to produce 'performance indicators' which celebrate utility. Boom subjects in British higher education over the last thirty years have been Law, Computing, and Business and Management; sponsored professorships are pursued, but they come in a restricted range of disciplines; it is becoming common for universities to offer training programmes for corporations and even to validate privately created courses; there are sustained pressures to make education 'more relevant' to the 'real world' of employment by inducting students in 'competencies' and 'transferable skills' which will make them more efficient and effective employees; it is explicit that universities must prioritize the employability of students.

Lyotard extends this argument to the whole of education, insisting that it is motivated now by criteria such as 'How will it increase my earnings potential?' and 'How will this contribute to economic competitiveness?' This transformation changes the conception of education. In the view of Lyotard, performativity criteria mean there will be a shift away from education perceived as a distinct period in one's life during which one is exposed to a given body of knowledge towards ongoing education throughout one's life, to be undertaken as career and work demands so dictate. In the words of Lyotard (1993), 'knowledge will no longer be transmitted *en bloc*, one and for all . . . rather it will be served "à la carte" to adults who are either already working or expect to be, for the purpose of improving their skills and chances of promotion' (p. 49). This is to repeat the orthodoxy of current educational policy, where 'lifelong learning' and 'flexibility' are dominant refrains.

Third, and a consequence of this redefinition of education, established conceptions of truth are undermined, performativity and commodification leading to definitions of truth in terms of utility. Truth is no longer an unarguable fact and

the aspiration of the university; rather, truths are defined by the practical demands placed on the institution. This development is a defining element of postmodernism, since the replacement of TRUTH with a 'plurality of truths' means that there are no longer any legitimate arbiters of truth itself. The upshot is that, to quote Lyotard (1988), truth is merely a matter of a 'phrase regime', something defined by the terms in which one talks about it. In this respect the undermining of traditional universities (which had been regarded as definers of legitimate knowledge) and, connectedly, intellectuals, is central (Bauman, 1987).

Many intellectuals resist the rise of performance-defined expertise, scorning those guided in the development of information/knowledge by practicality as 'mere technicians'. Against these latter who function only within the boundaries of an 'input/output . . . ratio relative to an operation' (Lyotard, 1993, p. 4), intellectuals usually aspire to research, write and teach for a wider constituency. However, the intellectuals' justifications sound increasingly hollow within and without education. This is partly a result of lack of resources, the distribution of which is difficult and the inevitable squabbling demeaning. More fundamentally, however, it is a consequence of the collapse of intellectuals' *raison d'être*. The point is that it is the intellectuals' claims to have privileged access to truth, to have a totalizing vision, which have been destroyed. Lyotard identifies the collapse of Marxism in the wake of revelations about the Gulag amidst its manifest economic inadequacies as especially significant. Marxism's claim for universal truth no longer holds any credibility, and neither do the superiorities of other intellectuals, whether they be couched in terms of the value of the classics, history or great literature. Today, if one argues that a particular discipline, vocation or aspiration is superior to others, it is widely regarded as no more than a partisan proposition, a 'phrase regime' with no more legitimacy than anything else. As degrees in Tourism, Public Relations and Business Administration proliferate in British universities, any proposal from other academics that their disciplines – Philosophy, English or Ancient Civilization – have more value because they offer students greater access to truth, more understanding of the 'human condition' or more profundity is greeted with derision or, more commonly, the accusation that this is expressive of an unworldly and useless snobbery.

The solid grounds on which intellectuals once belittled 'technicians' have turned to sand – and this is widely appreciated. No one, attests Lyotard, recurses to the Enlightenment justification for education any more, that more education leads to better citizens, though this was once a popular universalistic claim. History has destroyed its legitimacy: nowadays '[n]o-one expects teaching . . . to train more enlightened citizens', says Lyotard (1993), 'only professionals who perform better . . . the acquisition of knowledge is a professional qualification that promises a better salary' (p. 6).

Fourth, and finally, performativity criteria when applied to information/knowledge change ideas about what is considered to be an educated person. For a long while to be educated meant to be in possession of a certain body of knowledge; with computerization, however, it is more a matter of knowing how to access appropriate databanks than to hold content in one's head. In the postmodern age performativity decrees that 'how to use terminals' is more important than

personal knowledge. Therefore, competencies such as 'keyboard skills' and 'information retrieval' will displace traditional conceptions of knowledge (and student profiles will certify that these and other competencies have at least equivalent recognition to more orthodox academic attainments) as '[d]ata banks [become] the Encyclopaedia of tomorrow' (Lyotard, 1993, p. 51).

Moreover, databanks and the competencies to use them further undermine the truth claims of traditional elites. Indeed, they announce 'the knell of the age of the Professor' since 'a professor is no more competent than memory banks in transmitting established knowledge' (Lyotard, 1993, p. 53) and, indeed, is poorer at using that in a versatile and applied manner than the *teams* of employees that are increasingly required in the world of work (and in preparation for which students will be trained and credited in skills such as 'working in groups', 'leadership' and 'problem-solving').

What all of this returns us to is the relativism of knowledge/information. To Lyotard performativity, commodification and the manifest failure of 'grand narratives' have resulted in a refusal of all notions of privileged access to truth. Some intellectuals might despair at this, but, as with postmodern devotees Baudrillard and Vattimo, Lyotard considers that this can be liberating because the decline

of the universal idea can free thought and life from totalizing obsessions. The multiplicity of responsibilities, and their independence (their incompatibility), oblige and will oblige those who take on those responsibilities . . . to be flexible, tolerant, and svelte.

(Lyotard, 1993, p. 7)

With this, yet again, we are deep within postmodern culture.

Critical comment

Each of those discussed above is a convinced postmodern thinker as well as being persuaded that there is nowadays something one can reasonably call a postmodern condition. One can accept a good deal of the latter diagnosis (without agreeing that this marks a new type of society), but endorsing postmodernism is another matter. Postmodern thinkers do have interesting and insightful things to say about the character and consequences of informational developments: on the centrality and features of signification today (Baudrillard), on consideration of changes in modes of communication (Poster), on the diversity and range of world-views made available by modern media (Vattimo), and on the import of performativity criteria and commodification for the informational realm (Lyotard).

However, postmodern thought's dogged determination to relativize all knowledge, to insist that there is no truth but only versions of truth, has to be jettisoned – not least because it is inherently contradictory, betraying the ancient Cretan paradox that 'all men are liars'. How can we believe postmodernism's claims if it says that all claims are untrustworthy? This is, in the words of Ernest Gellner (1992), 'metatwaddle' (p. 41), something that fails to acknowledge that there is truth beyond the 'discourses' of analysts.

That is, against postmodern thinkers one may pose a reality principle, that there is a real world beyond one's imaginings (Norris, 1990). This is not to say that there is TRUTH out *there* shining its light like a star. Of course it must be established in language since truth is not revealed to us. But this does mean that truth is just a language game. E. H. Carr objected to this line of thinking fifty years ago in terms that remain pertinent:

It does not follow that, because a mountain appears to take on different shapes from different angles of vision, it has objectively no shape at all or an infinity of shapes. It does not follow that, because interpretation plays a necessary part in establishing the facts of history, and because no existing interpretation is wholly objective, one interpretation is as good as another, and the facts of history are not amenable to objective interpretation.

(Carr, 1971 [1961], pp. 26–27)

Though we may never grasp it in any absolute and final sense, we can develop more adequate versions of reality by demonstrating better forms of argumentation, more trustworthy evidence, more rigorous application of scholarship and more reliable methodological approaches to our subjects. If this were not so, the revealed 'truth' of the religious zealot must be put on a par with that of the dispassionate scholar (Gellner, 1992), a collapse into relativism with potentially catastrophic consequences (Gibbs, 2000).

It is this insistence on relativism that reduces Baudrillard's commentary to downright silliness. To be sure, he is right to draw attention to the manufacture of news and to remind us that this construction of signs is the only reality that most of us encounter of events beyond immediate experience. However, it is when Baudrillard continues to argue that news is a simulation *and nothing more* that he exaggerates so absurdly as to be perverse. He is absurd because it is demonstrably the case that all news worthy of the term retains a representational character, even if this is an imperfect representation of what is going on in the world, and this is evidenced by either comparing alternative news presentations of the same issues and events or realizing that there is indeed an empirical reality towards which news gatherers respond, or both. It is essential to retain the principle that news reports are, or can be, representational so that one can, with reliability, if scepticism, judge one news story as more accurate, as more truthful, than another. As we undertake this comparative task, we also realize that we are engaged in discriminating between more and less adequate – more or less truthful – representations of events, something that gives the lie to the postmodern assertion that there is either a 'truth' or an infinity of 'truths'.

More urgent than retaining the principle that news coverage has a representational quality, however, is the need to remind ourselves that the news reports on an empirical reality. Unless we remember that there is a real world we can finish in the stupid and irresponsible position of Baudrillard (1991) when he insisted, before the shooting started, that the Gulf War (1991) never happened since it was all a media simulation or, after the event, merely a war-game simulation (Baudrillard, 1992, pp. 93–4).

This is not to deny that the First Gulf War was experienced by most of the world solely as an informational event, or that this was the most extensively reported war until the Kosovan invasion during 1999, the Afghan War in 2001 and, of course, the Second Gulf War of 2003. Nor does this ignore the fact that much media coverage was – and is – partisan and even propagandistic. On the contrary, it was just because the news of these wars was flawed that we may point to the possibility of representational news being produced about it and of the possibility of discriminating between types of coverage to identify the more reliable from the less so. For instance, during the 2003 invasion of Iraq, it is widely agreed that the US media were considerably more favourable towards their forces and the attack itself than were European news media, and to this degree their coverage generally failed to question the administration's legitimation of the assault in terms of allegations that Saddam possessed weapons of mass destruction, or to pay attention to the destruction that was to be wreaked on Iraqis by the invading forces. This is not a matter of opinion, but a reasoned conclusion that follows from systematic analysis, production of evidence and comparison of the coverage in different countries (Tumber and Webster, 2006). Furthermore, leading news organizations within the United States, notably the *New York Times* and the *Washington Post*, came to much the same conclusion and a few months later apologized for their inadequacies during the early months of 2003. To follow Baudrillard's line of argument we would have to say that these different versions amount to nothing more than different versions, with the jingoistic *Fox News* no better or worse than the reportage of the *Independent*. This is a specious argument.

It is also deeply irresponsible. The late Hugo Young (1991) made a point devastating to such as Baudrillard when he warned readers, during the First Gulf War, to beware 'the illusion of truth' that came from 'wall-to-wall television' reportage. Alerting his readership to the fact that 'nobody should suppose that what they hear in any medium is reliably true', he continues to identify the crucial issue: 'that we are consigned to operate with half-truths' demands that 'we journalists should hang on to it'. That is, we ought to be sceptical of the reportage, but this must make us all the more determined to maximize access to reliable information. If we end up believing that all war coverage is equally fabricated and equally unbelievable, we are incapable of doing anything about the conflicts since they are reduced to language games.

Baudrillard's strictures on the implausibility of seeking the authentic have an easy appeal in an age of 'virtual reality' technologies which can precisely simulate experiences such as flying an aircraft and driving a car and in a society such as England where the Heritage industry is determinedly reconstructing historical landscapes. But, once again, the problem with Baudrillard is his rampant relativism that refuses to discriminate between degrees of authenticity. To suggest that this may be undertaken is not to say there is some core, some eternally genuine article, but it is to argue that one can, through critique and comparison, discriminate between phenomena to identify the more authentic from the less so (Webster, 2000).

Finally, Baudrillard's assertion that we are left only with 'spectacles' that are to be experienced but not interpreted reflects again his disdain for empirical evidence. It is undeniable that, in the contemporary world, we are subject to a dazzling array

of fast-changing signs, but there is no evidence that this results in the abandonment of meaning (cf. Kellner, 2005). It makes clear-cut interpretation of signs exceedingly difficult, but complexity is no grounds for asserting that, with interpretation being variable, interpretation itself is lost. People are not yet sign-struck, not yet the gawking 'silent majorities' Baudrillard imagines.

Mark Poster echoes a good deal of Baudrillard's assertions and the same objections to his work are pertinent. In addition, however, one can remark on features of his historical analysis. Poster's tri-part history – oralism, writing and electronic exchange – is deeply technologically determinist and subject to the objection that it is historically cavalier (Calhoun, 1993).

Gianni Vattimo is correct to draw attention to the multiperspectivism that the expansion of media can bring. Television has brought to our homes experiences from other cultures, and, indeed, from within our own society (Meyrowitz, 1985), which can challenge and disconcert. However, a glance at empirical evidence must reveal the marked limitations of this perspectivism since it shows clearly that some perspectives – notably American and, to a lesser extent, European – are a great deal more exposed than others (Tunstall, 1977). To say that Hollywood dominates the world's movies, that US television accounts for large chunks of most other nations' programming or that rock music originates in the main in London, Los Angeles and New York is not to argue that alternative perspectives are ignored. Quite the contrary, it is easily conceded that other cultures are noticed and even given voice here – consider, for instance, rap music or the urban movies which might show life through the eyes of ethnic minorities.

However, to accept that media have opened out to include other ways of seeing, at the same time as they have expanded exponentially, is not to agree that they offer 'multiple realities'. On the contrary, it is surely the case, as scholars such as Herbert Schiller demonstrate time and again, that what perspectives are to be included is subject to ideological and economic limits. That is, while some cultures may be given a voice, it is an inflected one which is, as a rule, packaged in an appropriate and acceptable way for media corporations, and, above all, it must be – or be made – marketable, something which limits the potential of, say, Chinese or Ukrainian ways of seeing getting much air time. The internet and digitalization generally do offer opportunities for greater diversity of content, yet even here to date it is dominated by commercial and Western content (Hindman, 2009).

A fundamental objection to Vattimo, as well as to other postmodern commentators, is that his account is devoid of an empirical analysis that endeavours to assess the realities of media output. His point that a profusion of media has led to inclusion of some 'alternative realities' is well made. However, analysis needs to go beyond this truism, to demonstrate the variation in perspectives (and the discernible limits placed on that which gets access to media) and the differential exposure of these perspectives. That requires, of course, a determined analysis of power, something which postmodern thinkers resolutely ignore (even while they proclaim that power is everywhere).

This same absence is also noticeable in the work of Lyotard, though his account of the influence of performativity criteria and the commodification of information/knowledge is revealing. One can readily discern, in an enormous range of spheres,

the influence of performativity and commodification: in publishing, where 'how to' and 'blockbusters' predominate; in television, where the 'ratings' are the critical measure of success since these bring in advertising revenue; in research and development activity, where 'marketable solutions' are sought by investors, where scientists are compelled to sign copyright waivers and where 'intellectual property' is protected in patent submissions. Above all, perhaps, Lyotard refocuses attention on the educational sphere, a quintessential, but underestimated, element of the Information Society, to demonstrate the intrusion of performativity criteria and the increased commercialization of affairs (Robins and Webster, 1989, 2002).

The main problem with Lyotard, however, is that he concludes from this that the reliability of all knowledge is lost and that an appropriate response is to celebrate our release from the 'tyranny' of truth. This gay abandon appears oblivious to the power and interests that have guided and continue to direct the spread of performativity and commodification. The perspectivism that Lyotard celebrates embraces a Nietzschean 'anything goes' philosophy which even legitimates 'reactionary neo-tribal' identity politics (Antonio, 2000) since it offers no positive alternative. *Contra* postmodern thinkers, were one empirically to identify the processes and agencies of power and interest, this would be to describe a reality that implies the possibility, at least, of alternative ways of arranging matters: 'This is as it is and why it is so – we may make it different.' In short, it would be to uphold the Enlightenment ideal of pursuing an alternative, and better, way of life.

A postmodern condition

Postmodern thought has undeniably influenced a broad range of reflection on contemporary life, not least among analysts of informational matters. It has permeated a good deal of Sociology, Cultural Studies and Communications scholarship, where such as Lyotard and Baudrillard and, most eminently, Foucault are frequently referenced. I do acknowledge this contribution and influence, though I am unsympathetic to postmodern thought. Too often it seems smart aleck, meretricious and irresponsible, manifesting a radical delight in questioning anything and everything while being incapable of discriminating between the pertinence of questions and qualities of evidence. Thereby postmodernism reveals a profound conservatism, being all talk with no consequence (other than to leave things alone), something akin to the court jester during the medieval period. This is why Jürgen Habermas (1981) was correct to identify postmodernism as neo-conservative, in spite of the radical chic appeal of Foucault and his acolytes. In addition, postmodernism's relativism, where *difference* is everything and all interpretations are interpretations of interpretations, is inconsistent, self-denying and fundamentally irresponsible. It can be amusing, even revealing, when musing on the complexities of small-scale interaction, but when relativism gets applied to matters such as war, militant religious cults and the massacre of almost two hundred schoolchildren in Beslan in September 2004 by ruthless terrorists, its intellectual and political bankruptcy is evident.

My lack of sympathy with postmodern thought ought not to be taken as denial that there is something that one might reasonably describe as a *postmodern*

condition. It is quite consistent to argue that we inhabit a postmodern society without subscribing to postmodern thinking. What may be taken to be postmodern lifestyles are manifested in hedonistic, self-centred (maybe even decentred) behaviours, in scepticism about definitive 'truth' claims, in ridicule and hostility towards 'experts', in delight in the new, in pleasure in experiences, and in a penchant for irony, pastiche and superficiality. All such may be taken as indicative and even characteristic of postmodernity.

Zygmunt Bauman (born 1925) is the pre-eminent analyst of the postmodern condition. Since the late 1980s he has published a remarkable series of studies identifying and examining postmodern society. Though he marshals little empirical evidence, his insights into contemporary society are perceptive. Bauman depicts modernity as a time characterized by a search for order, a society seeking stability and control under the aegis of nation states which looked after their citizens, a period in which there was confidence in planning and where it was imagined that reason would bring about greater surety as to how we might best arrange things. In contrast, postmodernity brings instability and insecurity, a retreat of the state and the triumph of the globalizing market, which promotes freedom of choice but leaves people apprehensive about their futures, suspicious of reason itself and of experts who make special claims for their privileged access to it, replacement of control by the state by the 'seductions' of consumerism, and a need for people to live with ambivalence and uncertainty (Bauman, 1997). This 'liquid life' (Bauman, 2005) is one of constant reinvention and possibility, full of potentials but with no criteria by which these might be judged to be achieved and hence corrosively dissatisfied at every level, from the intimate (Bauman, 2003) to the global, where faith in a better future is absent though it is widely acknowledged that humans are creating a changed environment (Bauman, 2006).

Bauman sees postmodernity as related, if not reducible, to capitalism. Indeed, the rip-roaring neo-liberalism that was unleashed by the collapse of Communism and the acceleration of globalization is a key element of the consumer-oriented and flexible lifestyles that characterize postmodernity. Bauman is imprecise about capitalism's connection to postmodernity, but his acknowledgement of the market's continued salience sets him apart from postmodern thinkers such as Baudrillard who present postmodernism as a break with all that went before.

There are still others who argue more baldly than Bauman that the postmodern condition with which we live today is a product of long-term developments in capitalist relations. That is, there are underlying features that may be identified by scholars which help account for the changes we have come to call postmodernism. Some such thinkers hesitate to suggest a definite historical cause of the postmodern condition. For instance, Fredric Jameson (1991), in a celebrated essay, refers to postmodernism as the 'cultural logic of late capitalism'. To Jameson realist culture was a correlate of market capitalism, modernist culture (as in Surrealism etc.) is in accord with monopoly capitalism, and now postmodernism is the culture with most affinity with consumer capitalism. Scott Lash and John Urry (1987) present a similar mode of analysis, arguing that an emergent 'service class' of educated, career-oriented, individualistic and mobile people with little sympathy for ties of 'community' and 'tradition' has an 'elective affinity' with postmodern lifestyles.

Marxist David Harvey (1989b) does not hesitate to identify a stronger causal connection. In his view the features of postmodernism are the result of changes in capitalist accumulation. The flexibility that we associate with contemporary capitalism, the adaptability of employees, the capacity of companies to innovate, the acceleration of change itself, give rise to postmodern culture. To Harvey the post-war Fordist era offered standardized products manufactured in standardized ways; today post-Fordism prevails, offering choice, variety and difference from an economic system beset by crisis, facing new circumstances (ICTs, worldwide competition, globalization), and eager to find solutions in 'flexible production' and its essential correlate 'flexible consumption'. Postmodern culture is the outcome of these trends; thus Harvey:

The relatively stable aesthetic of Fordist modernism has given way to all the ferment, instability, and fleeting qualities of a postmodernist aesthetic that celebrates difference, ephemerality, spectacle, fashion, and the commodification of cultural forms.

(Harvey, 1989b, p. 156)

Postmodernism accords, in other words, with the transition from Fordism to post-Fordism that we discussed in Chapter 5.

Interestingly, Daniel Bell, coming from a quite different starting point from that of David Harvey, shares a willingness to explain the postmodern condition as a consequence of 'the workings of the capitalist economic system itself' (Bell, 1976, p. 37). Bell suggests that the very success of capitalism in generating and sustaining mass consumption, in giving people cars, fashions, televisions and all the rest, has led to a culture – he did not yet call it postmodern in the mid-1970s, but that is what it amounted to – of pleasure, hedonism, instant gratification and the promotion of experience over meaning (Bell, 1990) which, paradoxically, is one that is at odds with the sobriety and efficiency-directed value system that contributed to the startling success of capitalism in the first place.

I find these accounts of the postmodern condition persuasive. They offer historical analyses and bring forward a wealth of empirical information to provide substance to their arguments. A determined postmodernist thinker can dismiss them all as pretentious 'grand narratives', with Harvey interpreting the postmodern condition as the working out of the inner logic of capitalist forces and with Bell coming from a committed modernist position which regards the postmodern as a decidedly inferior culture to what went before.

To the postmodernist these accounts are unacceptable because they presume to see the truth where there is no truth to be found. Harvey, for instance, claims to see beneath the surface of postmodern culture to an underlying, but determining, economic reality, presenting a vision that is said to emanate from his own commitment to Marxist principles and which relegates those he studies – the postmodern subjects – to 'cultural dopes' because they fail to see the hidden forces of capitalism with the learned professor's clarity (Harvey, 2003). To the postmodernist Harvey's is but one reading, one interpretation among infinite possibilities, and one which is rather noxious at that (Morris, 1992).

None of these studies is beyond criticism. However, from admission of the value of critique to endorsement of the postmodern dogma that everything is but an interpretation is an unacceptable leap because in between is the matter of substantive analysis. We can readily agree that each account is partial, but it cannot be dismissed – or seen as but equal to any other ‘reading’ – on that account, because one must *demonstrate* how some accounts are more, and others less, partial. In other words, we are reminded of the untenability of the postmodern celebration of relativism, an assertion that subverts its own statements in the very act of denying all claims to truth.

Conclusion

As a description of the world in which we live, the term postmodernity has value. Its emphasis on the ferment of change, on fluidity, on scepticism and a penchant for irony, and on the instability of relationships captures some of the distinguishing features of our times. The foremost sociologist of postmodernity, Zygmunt Bauman, illuminates core elements of contemporary existence, notably the uncertainty which underlies the surfeit of choices to be made about everything from one’s hair colour to whether to support Amnesty International. Postmodernity as a condition allows greater appreciation of how much constraint has been removed from our lives today compared to that imposed on our predecessors, as, too, does it highlight the imperative that we are forced to choose how we are to live now, though solid grounds for choice have crumbled. In turn, Bauman’s attention to ‘seduction’ alerts us to the special significance of marketing, advertising, celebrity – the entire range of media and associated imagery essential for a time in which previous systems of control have diminished in force. Further, the emphasis of postmodern thinkers on the sign and signification, on simulation and inauthenticity, on the transformative power of performativity criteria applied to information and knowledge and acknowledgement of the import of electronically mediated information are all useful to students of the ‘information revolution’.

However, it is doubtful that ‘we are entering a genuinely new historical configuration’ (Crook *et al.*, 1992, p. 1). Quite the contrary, most of the postmodern condition’s characteristics are explicable in terms of ongoing, if accelerating, trends, ones identified and explained effectively by modernist thinkers such as Herbert Schiller, Jürgen Habermas, Anthony Giddens and David Harvey. Like post-industrial theory, postmodernism proclaims a new primacy to information and, with it, the arrival of a fundamentally different sort of society. And also as with post-industrialism, the proclamation cannot be sustained in the face of scrutiny.

Note

- 1 This is a knowingness shared by makers of advertisements, who often present adverts that are ironic, tongue-in-cheek and funny, mocking the idea that the viewer might be persuaded to buy a product by watching the advertisement.

Beyond the Information Society

The primary purpose of the original edition of this book was to examine the significance of information in the world today. It asked how, why and with what validity it is that information has come to be perceived as a, arguably the, defining feature of our times. My starting point was to remark on the consensus among thinkers that information is of pivotal importance in contemporary affairs: it is contended not only that there is a very great deal more information about than ever before (this is indisputable), but also that information plays a central and strategic role in pretty well everything we do.

But beyond these observations consensus about information breaks down. While everyone agrees that there is more information and that this has increased in pertinence nowadays, thereafter all is disputation and disagreement. Recognizing this, I have tried to identify major attempts to understand and explain what is happening in the information domain and why things are developing as they are, at once to make clear the bases of different approaches while simultaneously testing them against available evidence, against one another, and with any additional critical insight I could muster.

I have questioned the validity of the concept Information Society, even though it is much used in and outside the social sciences. This does not mean it is worthless. Concepts are tools to think with and as such they can help us to think more clearly. Part of that thinking involves criticizing that which we use to further our understanding. And part of that critique can be to jettison the concepts with which we began in favour of more adequate terms. The Information Society concept has been useful in so far as it has served as what David Lyon calls, after the late Philip Abrams (1982), a 'problematic', a 'rudimentary organisation of a field of phenomena which yields problems for investigation' (Abrams, in Lyon, 1988, p. 8). The concept has helped scholars to attend to, and to collect together, a wide-ranging and diverse number of phenomena, from occupational shifts, new media, digitalization, to developments in higher education. Business historian James Cortada (2007) appositely notes that 'naming' in this way 'provides focus' for analysts.

Despite this, however, the Information Society concept is deeply flawed, especially in the ways it asserts that it depicts the emergence of a new type of society. I am convinced that examination of information is vital to understand the character of the world today, though Information Society scenarios are of little

help in this exercise since they divert us from ongoing trends and ignore key features of the contemporary world. On occasions I have found myself using the concept, but in truth I think we are better off jettisoning the term altogether, in favour of paying attention to the informatization of relationships. This latter focus lets us look closely at the milieu in which information is developed and adopted in real relationships rather than, as with Information Society scenarios, extracting information as a distinct and distinguishing variable that is shaping the way we live.

Over the years, through various editions of this book and now here, I developed an intense interest in the process of democratization and, with this, questions about the role of information in succouring (or not) democracy. Despite the vicissitudes of history, I share Amartya Sen's (1999) identification of democracy as the pre-eminent form of governance today, arguably the sole universally accepted value we hold. A spate of writing has attended to this, as well as responding to fears that democracy is less energetically practised than it might be, to suggest that information, and especially information and communications technologies, might revitalize the process by, for instance, reducing entry costs for campaigners or making easier the mobilization of protest. Scarcely a protest takes place now without commentators observing the special significance of YouTube, e-mail and mobile phones in publicizing the events and amplifying the issues.

For there to be a strong democracy an informed and engaged public is essential, but I do not think that increases in information (especially technologies, but also social media and the internet *tout court*) are a royal road to that end. I noted in Chapter 3 that it is, above all, the idea of democracy that is on the march and that this is not reducible to information availability or exchange. Traceable to Ancient Greece, but more vitally to the French and American revolutions of the late eighteenth and early nineteenth centuries, the idea of democracy is the decisive driver.

I have tried to demonstrate that those commentators, scholars as well as futurists, who start their analysis from technology's affordances are misleading. It is not credible to adopt information and information technologies as independent variables that are set to shape – generally it is assumed positively – democracy and democratic practices. This problem of technocentrism oversimplifies change and misconstrues the character of technology itself since it drains it of social content and context. We need a more variegated and complex approach.

This much can be agreed: democracy has advanced over recent decades and the information environment in which it operates matters. However, it is folly to observe an information explosion and rapid technological innovation and to conclude that thereby democracy flourishes. A basic objection here is to insist that more information does not of itself make for a more informed citizenry. Nor should we be persuaded by the superficial radicalism of postmodern thinkers who perceive a collapse in meaning as the accompaniment of information surfeit, thus to embrace a nihilistic 'anything goes' with a 'nothing matters' outlook. Democratization matters enormously and it is worth fighting for, as brave forebears did and as their descendants continue to do.

I have noted that democracy is nurtured largely in nation states, but that states are losing sovereignty, not least because the triumph of globalized capitalism is able to harness information flows to circumvent borders. The dominance of global corporations and capital over what Dicken calls ‘circulation activities’ massively empowers (even where it destabilizes) these forces and provides sustained pressure for conventional behaviour among governments. Nonetheless, nation states are crucibles of democracy and will remain so in the foreseeable future, however much more transnational institutions are developed. This being so, the informational resources that are available and utilized in the nation need to be attended to. I have been sceptical of the primary institutional defence presented by those who wish to counter the influence of the market here. The notion of the public sphere, particularly its alleged modern-day expression in public service institutions, seems to me increasingly untenable. I have, however, defended the limited notion of the *political public sphere* in this book and it seems to me here that one may justify subsidy of informational (and other) programmes to achieve a rough balance of forces inside the polity. I also agree that public service institutions such as public broadcasting and public libraries almost invariably provide higher quality information and better access than that offered by the market system (Losifidis, 2011). For this they merit defending, though not in terms of their constituting a public sphere.

I have also had a good deal to say about the growth of surveillance. I have tried to demonstrate, drawing on Anthony Giddens especially, the Janus-headed character of this trend, one that seems to me impossible to prevent if we wish to enjoy the individuated services and organizational benefits of a complex society. Of course, we might all be anxious about the spread of systems of surveillance that dwarf anything coming before, while also being capable of individuating details of computer use, phone networks and credit card expenditures. The revelations about the American PRISM programme in the early summer of 2013 – it appears able to harvest just about any digital information, from metadata such as phone connections to the content of online communications – underscore this element of surveillance, something driven not by technology but the imperative of nations to protect citizens from those perceived as enemies (and while there is little doubt when it comes to such as Al Qaeda terrorists, the boundaries of inclusion in ‘categorical suspicion’ are bound to be dubious, probably including, for instance, anti-Austerity protesters; in addition, identification of those to be surveilled varies by historical and political circumstances – imagine PRISM’s use during the McCarthyite period, when signing a petition or attending a meeting could be grounds for suspicion).

At the same time, surveillance appears a vital part of democracy itself. On the one hand, this is required to ensure that everyone eligible to vote may exercise that right. On the other hand, in the conditions of what John Keane (2009) calls ‘monitory democracy’, ‘categorical exposure’ points to scrutiny of politicians, lobbyists and such like that plays a central role in political accountability and transparency. We saw in Chapter 11 how in conditions of Information War, governments and the military go to a great deal of trouble to control information going to the public, yet we detailed how reporters and opponents frequently foil these efforts

in conditions that might be considered informationally chaotic. This, as well as a host of less contentious information such as government statistics, is a contributor to the 'heightened reflexivity' that Anthony Giddens explored, and it, too, contributes to the health of democracy. It is expressive of the scrupulous monitoring that is essential if we are to have knowledgeable citizens and if governments are to be fully accountable to voters.

Societies will wish to establish guidelines and legislation to try to restrict surveillance and ensure the integrity of information so gathered, but its presence cannot be wished away. This is perhaps the reason why so much of the public, when Edward Snowden leaked details in June 2013 of the awesome scale of PRISM's surveillance, was muted in protest. Apprehension about threats from 'terrorism' encourages many to accede to privacy invasions, but there is also already so much everyday monitoring, through online advertising, location-tracking social media sites and retail activities, that few can be unaware that people nowadays are closely observed by anonymous institutions. This being so, many may feel that government agencies snooping in times of threat is a relatively minor extension.

It is in the detail of the exposition and assessment of varying 'theories of the Information Society' that the chief value of this book is to be found. So much commentary on the 'Information Age' starts from a naïve and taken-for-granted position: 'there has been an "information revolution", this will have and is having profound social consequences, here are the sort of *impacts* one may anticipate and which may already have been evidenced'. This sets out with such a self-evidently firm sense of direction, and it follows such a neat linear logic – technological innovation results in social change – that it is almost a pity to announce that it is simply the wrong point of departure for those embarking on a journey to see where informational trends, technological and otherwise, are leading. At the least, recognition of the contribution of social theory moves one away from the technological determinism which tends to dominate a great deal of consideration of the issues (though, as we have seen, with some social science thinkers more subtle – and sometimes not so subtle – technological determinism lingers, notably in their willingness to set off from the presupposition that technology is readily separable from society, then to be approached as an independent variable with more or less significant effects).

More than this, however, I think that one's appreciation of the significance of information in contemporary life is immensely deepened by encounters with the likes of Herbert Schiller, Anthony Giddens, Friedrich von Hayek, Manuel Castells and Zygmunt Bauman. Who cannot be stimulated, for example, by Daniel Bell's arguments that it is the increase in service employment that leads to an expansion of information occupations that have the most important consequences for how 'post-industrial' societies conduct themselves? Who cannot find arresting Giddens's contention that the origins of today's information societies are to be found in surveillance activities that are in large part driven by the exigencies of a world organized into nation states? Who cannot take seriously Herbert Schiller's suggestion that the information explosion of the post-war years is a consequence, for the most part, of corporate capitalism's inexorable march? Who is not disturbed and provoked by Jürgen Habermas's fear that the 'public sphere', so essential to the proper conduct of democracies and where the quality of information

supplies the oxygen which determines the health of participants, is being diminished? Who would not concede the relevance to understanding information of theorists of a transition from Fordist to post-Fordist forms of socio-economic organization? Who cannot be intrigued by Jean Baudrillard's gnomic – if exasperating – observations on signs that are simulations or Jean-François Lyotard's identification of a 'principle of performativity' underpinning the generation and application of information in the 'postmodern' era? And who, encountering these thinkers and the calibre of their work, cannot but conclude that most pronouncements on the 'Information Age' are hopelessly gauche when they are limited to insistences that it is social media, communications technologies or the internet that are bringing to birth this new society?

Of course it would be disingenuous of me to stop here with the suggestion that all I have tried to do is introduce readers to a variety of interpretations of informational trends. Those who have gone this far in the book will have realized soon enough that I have found certain thinkers more persuasive than others. I have endeavoured to make this, and the reasons why I favour them, clear as I have gone along. This approach, a close critique of major contributions to information matters, has worked through others' writing to reveal my own views. This exercise has involved examining the conceptual principles of thinkers as well as the salience of empirical evidence wherever it might be brought into play. Attentive readers will have gleaned a good idea of my own position from what has gone before in this study. However, for the sake of clarity, in the following pages allow me to be more explicit about my own conclusions.

It is my belief that if one is trying to make sense of the information realm and its import in the present age, one should be drawn primarily towards the ideas and research, above all, of Herbert Schiller and Anthony Giddens, as well as to the significant body of work that has been influenced by their themes. This does not for a moment mean that the contributions of Daniel Bell or of Jean Baudrillard or of Mark Poster and other scholars are negligible. Quite the contrary, I have attempted, when analysing such thinkers, to indicate and evaluate the positive elements of their work as well as to point out any weaknesses I may have found in it. Indeed, Manuel Castells's trilogy *The Information Age* and his book *Communication Power* seem to me to be the most persuasive analysis of the world today, albeit that I remain critical of some aspects of his work (Webster and Dimitriou, 2004).

There are two major reasons for my preferences for some thinkers rather than for others. The first concerns the capacity of these approaches to illuminate what is actually going on in the world and how well their propositions stand up to empirical scrutiny. On the whole, the Critical Theory of Herbert Schiller (in whose writing theory is decidedly and advantageously subordinated to a concern with substantive developments) and the historical sociology of Anthony Giddens seem to me more persuasive than the writings of post-industrial and postmodern enthusiasts. Perhaps to state the obvious, to admit my preferences means neither that I endorse everything each of these scholars forwards nor that Schiller and Giddens are altogether agreed on what are the salient features of the informational domain. It will be obvious to readers that Schiller's focus on the imperatives imposed by

capitalism differs from Giddens's emphasis on ways in which the state especially, and particularly in its military and citizenship dimensions, influences the collection and use of information.

However, there is one crucial point of agreement within the diversity of views of these thinkers and it is something that sets them apart from those other contributions that I have found less helpful in understanding and explaining the role of information in contemporary affairs. It is this that takes me to the second reason for my preferences. What Schiller and Giddens do share is a conviction that we should conceive of the *informatization* of life, a process that has been ongoing, arguably for several centuries, but which certainly accelerated with the development of industrial capitalism and the consolidation of the nation state in the nineteenth century, and which moved into overdrive in the late twentieth century as globalization and the spread of transnational organizations especially led to the incorporation of hitherto untouched realms – far apart geographically and close to one's intimate life – into the world market.

That is, these scholars believe that informational developments must be accounted for in terms of historical antecedents and *continuities*. Each of these thinkers therefore prioritizes in his separate accounts phenomena which, over time, have shaped, and in turn have built upon, informational patterns and processes to ensure, as best they could in uncertain and always contingent circumstances, that existent social forms might be perpetuated. Thus, for instance, in Herbert Schiller's work we get a recurrent insistence that it is capitalist characteristics which predominate in the origination and current conduct of the informational realm: it is the primacy of corporate players, of market principles and inequalities of power which are most telling. Similarly, those who follow Habermas often argue that the 'public sphere' has been diminished and recourse to explaining the expansion of misinformation, disinformation, infotainment – information management in all of its guises – in terms of the historical expansion and intrusion into all spheres of life of commodification and market criteria. Hence the 'information explosion' is to these thinkers comprehensible as an integral part of the up and down history of capital's aggrandizement.

Again, Giddens's approach towards information is one that places its development in the context especially of the development of nation states and associated historical patterns of the making of modernity, such as the industrialization of war and the spread of citizenship rights and obligations. A similar emphasis comes from Regulation School theorists, who explain informational trends in terms of requisites and outcomes of advanced capitalism following recession and restructuring brought about by the threats and opportunities associated with the spread of globalization.

Those who emphasize historical continuities are not alleging that nothing has changed. Quite the reverse: the very fact of informatization is testament to their concern to acknowledge the changes that have taken place and that these are such as to promote information to a more central stage than previously. Nevertheless, what they do reject is any suggestion that the 'information revolution' has overturned what went before, that it signals a radically other sort of social order than we have hitherto experienced. On the contrary, when these thinkers come to

explain informatization they insist that it is primarily an outcome and expression of established and continuing relations, relationships that continue to resonate. It is therefore the conviction of each of these thinkers that the forces they have identified as leading to the informatization of life still prevail as we enter the third millennium.

My reason for preferring the idea of an informatization of life which stems from the continuity of established forces becomes clearer when we contrast it with the propositions of the likes of Daniel Bell, Gianni Vattimo and Mark Poster. Here, again amidst marked divergences of opinion and approach, is a common endorsement of the primacy of change over continuity. In these approaches change is regarded as of such consequence that reference is recurrently made to the emergence of a novel form of society, one that marks a system break with what has gone before. Such thinkers use a variety of terms, from the generic Information Society, to post-industrial society, postmodernism, the Information Age and flexible specialization.

To be sure, none of these thinkers is devoid of historical imagination, but the emphasis of their analyses is constantly one that centres on the novelty of the Information Society, something that sets it apart from anything that has gone before. I have tried to demonstrate throughout this book how this proposal is unsustainable, and in doing so I have found myself returning time and again to those who argue for the primacy of continuity to make my case.

It might be objected that this debate between continuity and choice is misconceived and even unhelpful. It is misconceived if it is taken to mean that one must opt either for one or the other, either all continuity or all change. The pragmatist will insist, reasonably enough, that the present is a mixture of both. And one can understand the frustration of those who are keen to examine how the world actually operates and feel it is diversionary to get involved with a continuity versus changes controversy. I have some sympathy with this position myself and would prioritize substantive analysis over argument about what is an old chestnut among social scientists.

Nonetheless, even the pragmatist may be asked which is the *major* force, continuity or change? The question cannot easily be avoided when put like this, and nor should it be. It seems to me that it can only be answered by comparative assessment of thinkers and a judgement of the more persuasive empirical evidence. This is something that I have tried to do in this book, and it is what has led me to favour continuity over change. However, there are at least two further reasons to be wary of those who emphasize the novelty of the Information Age. One is the trap of *presentism*, the conceit that one's own times are radically different from those that went before. Of course, to a degree this is self-evidently so: all historical circumstances are singular, so things are different today. But against this a longer-term perspective helps contain an enthusiasm for the *now* which can easily lead to an overemphasis on novelty. Alan Bennett, in his play *The History Boys* (2004), observes that 'there is no period so remote as the recent past'; he might have said the same about the here and now. Though now is urgent, palpable and compelling, it is so engrossing that frequently we fail to put it into proper perspective. We know this in our personal lives (recollect issues about which one

once felt passionate at the time, yet about which we changed our mind afterwards in the light of further information and/or new knowledge): so should we know it about the wider contemporary realm. We ought to bear this in mind when we encounter Information Society claims.

Of course, technologies such as the iPad and the World Wide Web are features of today's world. And clearly they have consequences for how we go about our lives. However, it is a huge step from acknowledging the new to proclaiming this marks a radical transformation of social relationships. The second reason to be wary is that accounts which insist that the Information Society is a new era readily pressure others to accept and accede to the here and now. Claims that we have entered a new society fit comfortably with the view that we can do nothing about change, and that we ought accordingly to adopt and adjust to the realities. Against this, accounts that trace historical antecedents and lay stress on continuities can draw attention to ways in which the present has emerged from a past that, having been humanly made, can also be remade (cf. Burke, 2000).

It is my view that we may best appreciate information trends by situating them within the context of capitalist development. In this, history does matter, so one is not suggesting that capitalism is the same today as it ever was. The informationalized capitalism we have today is significantly different from the corporate capitalism that was established in the opening decades of the twentieth century, just as that was distinguishable from the period of *laissez-faire* of the mid- to late nineteenth century. An adequate account of contemporary capitalism needs to identify its particular features, prominent among which are the presence of unprecedentedly large transnational corporations, an intensification of competition on a global scale (and thereby an acceleration of the pace of change within capitalist parameters), the relative decline of national sovereignty and, above all, globalization. While it is an extraordinarily complex phenomenon, globalization does, for the most part, shape the world in ways that bring it into conformity with Western ways. All of this is captured effectively, and in refreshingly unapologetic terms, by *New York Times* columnist Tom Friedman in his book *The Lexus and the Olive Tree* (1999). Friedman says it straight: there is 'only one game in town', and this is one in which the United States – the leanest and largest and most experienced operator – is the top seed. The current era is 'dominated by American power, American culture, the American dollar and the American navy' (p. xiv), and it is one where – precisely because globalization expresses the United States' triumph as the leading capitalist nation – some homogenization is unavoidable. That homogeneity means the rest of the world must adapt towards Americanization. As Friedman puts it, globalization means going 'from Big Macs to iMacs to Mickey Mouse' (p. 9).

In saying this, let me stress that neither Friedman nor I wish to suggest that bringing the world into line with Western ways has brought stability or that it has straightforwardly consolidated American national superiority (Friedman, 2005). On the contrary, another major feature of globalization is an intensification of competition, as once separate realms are brought into relation with others, and this impels deep uncertainty, as well as an acceleration of change itself (Soros, 1998; Greider, 1997). Tom Friedman (1999) concurs. Indeed, the central thesis of

his stimulating book concerns the tensions between living in a dynamic, ever-changing and unstable world which develops new products and processes as a matter of routine (the Lexus) and the human need for stability, roots and community (the Olive Tree). The Lexus, to Friedman, is the future.

What I do want to emphasize is that globalization expresses, above all else, the triumph of what one might call 'business civilization'. By this I want to underline that the world, however much variety we may witness in it, has been brought together under a common set of principles. These include:

- ability to pay will be the major criterion determining provision of goods and services;
- provision will be made on the basis of private rather than public supply;
- market criteria – i.e. whether something makes a profit or loss – are the primary factor in deciding what, if anything, is made available;
- competition – as opposed to regulation – is regarded as the most appropriate mechanism for organizing economic affairs;
- commodification of activities – i.e. relationships are regarded as being amenable to price valuations – is the norm;
- private ownership of property is favoured over state holdings;
- wage labour is the chief mechanism for organizing work activities.

To be sure, these are idealizations of what happens in practice, but what seems to be unarguable is that these principles have spread round the globe at an accelerated pace in recent decades. There are complex reasons why this should be so, and there remain to this day important pockets of resistance to their spread, but it appears to me that we have witnessed the massive intrusion of 'business civilization' in recent years. This has been, it may be emphasized, both an intensive as well as an extensive affair. Intensive in so far as market practices have enormously intruded into areas of intimate life hitherto relatively immune even in the West. One thinks here, for instance, of child-rearing (the plethora of diverting toys and television for the young), of the provision of everyday foodstuffs (just about everyone nowadays is reliant on the supermarket for food, while not so long ago many families self-provided, at least in large part, through gardens and allotments which allowed vegetables to be grown and useful animals to be reared) and of the decline of self-provisioning activities such as dressmaking and knitting (Seabrook, 1982b). Extensively, of course, we may instance the spread of globalization, a process that has colonized many areas that previously were self-supporting. The obvious, if underestimated, instance of this is the elimination of the peasantry from most quarters of the earth. This, by far the majority of the world's population throughout recorded time, is now on the eve of destruction (Worsley, 1984), though it has been calculated that in 1900 nine out of ten people in the world were peasants (Ponting, 1999, p. 13). The great peasant societies of 1900 – China and Russia – can no longer be described in such terms, and the peasantry has virtually disappeared from Europe itself. And the reason is clear: the peasantry is antipathetic to market civilization. Peasants are largely self-supporting, they are sceptical of technological innovation, resistant to wage labour and distanced from market

organization. As such, their ways of life have been diminished by what Kevin Robins and myself refer to as the 'enclosure' of the earth by business practices, by which we mean the incorporation of activities once outside into the routines of the business realm (Robins and Webster, 1999).

There can be little doubt about the incorporation of informational issues within 'business civilization'. Consider, in this respect, the spread of 'brands' in and beyond everyday life, or the heightened importance of 'intellectual property' in matters ranging from scientific research to the merchandizing of sports teams. Increased commodification is manifest in the information domain, where moves to charge for permission to use any piece of recorded music, each frame from a movie or indeed any piece of 'creative property' threaten to inhibit what Lawrence Lessig (2004) calls today's 'remix culture', which amalgamates pictures, music and words in a digital medium and is supplanting text-based forms of expression that once were protected by 'fair use' rules that have no provenance when it comes to visual and sound products. Of course there are counter-tendencies of decommodification, for instance in the spread of free government information, public service web sites and digitalized collections of out-of-copyright literature. However, it is hard to interpret this as an effective countervailing tendency against the wave of corporate and legislative efforts to maximize returns to owners on investment in creative and knowledge property.

Should there be some who perceive, on reading the foregoing, nostalgia for times before the triumph of capitalism, let me stress a number of things. First of all, the penetration of market mechanisms does not, by any means, mean that there is hardship among consumers. On the contrary, for those with the wherewithal, reliance on the store for one's food and clothes is preferable to the dreary round of home baking and having to endure ill-fitting and unfashionable clothing. Similarly, marketization of information does mean that, so long as one has the resources to pay, its calibre and the immediacy of access is incomparably superior nowadays. In addition, compared with the lives of most peasants, even an impoverished existence inside capitalism offers an enviable standard of living. Second, the peasantry has been destroyed by various methods – repression and dispossession most certainly in the former Soviet Union under Stalin's order to 'liquidate the kulaks' (the allegedly rich peasants), but probably of more consequence in the longer term has been the pull of the market society, offering change and opportunities that the peasant way of life could never match. Finally, no one should refer to the success of capitalism without acknowledging the failure of its major rival, Communism. Politically discredited, Communism also failed in economic matters, being incapable of matching the dynamism of the West. Its collapse opened the floodgates for capitalist hegemony to rise, its swell so high that the return of a familiar capitalist crisis in 2008 (financial failings, mass unemployment, a decline in living standards for many) resulted in little beyond antipathy towards the bankers whose profligate lending and zany schemes caused the financial collapse. The Occupy movement, even widespread protests against 'austerity' policies, have offered no alternative vision to market society. Sporadic riots in which the outcast and deprived participate are disconcerting, but offer no political challenge whatsoever. Taken together, these are important qualifications to any account that

might imply regret about the triumph of business civilization. Nonetheless, what must be accepted is that capitalism has won out, and its success has meant that the world has been enclosed within its orbit, within its ways of organization and within its ways of imagining. It matters not whether one embraces this triumph or not; the key issue here is to acknowledge it.

I would also emphasize that this success – of what has been called the ‘neo-liberal consensus’, to underscore that this is the foundational principle of governments around the world nowadays, albeit that, as the depression reaches into a sixth year, some politicians begin to urge state-led investment instead of public sector cuts and privatization – represents no return to a former capitalist age. Not least, globalization has ensured that there is no going back to the days of nineteenth-century *laissez-faire*. This is reason enough to reject the postulations of Friedrich von Hayek: his abstract musings on the splendours of the free market have little connection with the real world of neo-liberal ascendancy, though they are drawn upon by many apologists and activists for capitalism, whose rhetoric hymns Hayekian themes. Hayek is wonderfully provocative and his insights on markets as signals to mediate between producers and customers are valuable. However, the market system we inhabit nowadays has little in common with Hayek’s model – reason why I, as a social democrat, urge intervention with rules, regulation and policies to restrain corporate power. Much of business civilization is familiar, and would be recognized by nineteenth-century free traders, but it is undeniably now in new circumstances. Prominent among these is the presence of corporations with global reach that, if they are engaged in intense and rivalrous competition among themselves, exclude from but the fringes of activity the small-scale entrepreneurs. Today’s capitalism is one dominated by huge corporations – the likes of General Motors, Shell, Matsushita and Siemens, as well as relative newcomers such as Google, Apple and Facebook – with breathtaking research and development budgets, international leverage and worldwide marketing campaigns. In addition, global capitalism today is linked in real time by world financial markets – markets which trade in excess of a trillion dollars every day – the size and speed of which is unprecedented, and the consequences of which have been evident in massive upheavals of national economies.

Truly, today’s capitalism, globally connected and instant in response, portends to a large degree the weakening of national politics. To be sure, politics is still played out at a national level for the most part, but there can be no illusions about the reduced capacity of nations to act independently. Interlinked patterns of ownership and investment, world-operating corporations and the rapidity of financial transfers mean that a broad conformity to the ‘rules’ of the market is a *sine qua non* of politics today. Again, today’s capitalism is one which exercises global reach in many aspects of its operation, as witness the tendencies towards, and practices of, the world marketing of products, international divisions of labour, multi-site corporate locations and creation of global brands.

This manifests at once the enhancement of capitalist practices and evidence of the diminished capacity of national governments to influence them. Nation states undoubtedly matter still, as do super-states such as the European Union, but the power of states over citizens’ everyday lives should not lead one to suppose

they may shape, still less their electors, what they might wish. When it comes to concentrated but globally dispersed corporations, operating in a networked world of ready connection and immediate communication, nations must accommodate to the imperatives of capital. Governments must do what is necessary to 'retain the confidence of the market', seeing success in terms of corporations locating offices and even production facilities within the borders of favoured nations, the politicians from which may judge their own success by the numbers of jobs that may be brought by subordination to corporate needs. This situation was vividly revealed late in 2012 in the UK when numerous international companies, including Google and Amazon, were shown to be paying minimal levels of corporation tax on their earnings. Their tax avoidance was legal and they employ leading accountants and lawyers to ensure this is done to maximum effect. Techniques of transfer pricing and off-shore registration are deployed on advice from companies such as PriceWaterhouse, KPMG and Deloitte to make savings for their clients such that corporation tax, for many, might be regarded as a matter of voluntary contribution rather than an obligation entailed in belonging to a nation. The trend is global: in the United States corporate tax generated one-third of all government tax in 1952, but today it is down to 9 per cent.

While I am at pains here to emphasize the novel features of the current era, it seems to me essential that we appreciate that these are consolidations and extensions of long-established principles. That is, today's global economy represents the spread and growth of capitalist behaviour – witness the increased use of market mechanisms, of private rather than public provision, of profitability as the *raison d'être* of organizations, of wage labour, and of the ability to pay principle as the determinant of the supply of goods and services. In short, the 'global network society' in which we find ourselves today expresses the continuation – transmutation if one prefers – of long-held capitalist principles. As Krishan Kumar concluded years ago:

the information explosion has not produced a radical shift in the way industrial societies are organised, or in the direction in which they have been moving. The imperatives of profit, power and control seem as predominant now as they have ever been in the history of capitalist industrialism. The difference lies in the greater range and intensity of their applications . . . not in any change in the principles themselves.

(Kumar, 1995, p. 154)

The work of the late Herbert Schiller, frequently derided for its lack of theoretical sophistication, seems to me that which most effectively directs us to the importance of capitalism's triumph for the informational domain. It reminds us, too, that a reversal of the usual question (What is the information revolution doing to us?) can be salutary. To ask 'What are we doing to information?' puts the spotlight on globalized capitalism's need for advertising, ICTs, corporate planning, political influence and effective marketing.

If I were to situate my own contribution to understanding informational issues, it is to the legacy of Schiller that I would return. Herbert Schiller had a sharp eye

for identifying transformations in capitalism's development. He was quick to see that informational capitalism brought forth new possibilities and challenges, but he insisted throughout that familiar precepts of capitalist enterprise (profit, growth, markets, private property) remained constant. Schiller was acutely aware that what has come to be termed 'neo-liberalism', with its attendant globalization, corporate expansion, heightened competition and underpinning information and communications technologies, represented major changes, but he took pains to remind audiences that the foundational principles of market society persisted.

This is a vital point: while change undoubtedly takes place, often at an unsettling rate and with major consequences, we should hesitate before announcing the arrival of a new type of society. Indeed, the vocabulary of a 'new' age can be positively misleading if it leads to overlooking long-established patterns and practices. Living in the here and now, we are naturally inclined to be struck by the novel – for example the expansion of car ownership, shifting family sizes, the frequency of foreign travel, demographic trends – but analysts need to situate the new alongside the persistence of established forces. Schiller was especially effective in emphasizing that capitalism has never been a static order. To the contrary, it is dynamic, ever changing and developing while it aims to maintain, consolidate and extend its core features.

Let me provide an illustration of my Schillerian disposition. Enthusiasts for the Information Society often place emphasis on changes in media, drawing attention to issues such as mobile communications and the interactive affordances of new media to proclaim a systemic change. They suggest there is a transformation of people's information environment consequent on social media adoption that enables ready participation (a favoured theme is that the 'prosumer' of information has arrived, one who is at once producer and consumer). There can be little doubt that much in this way is happening, though we need more evidence before we rush to conclusions. However, adequate understanding of media ought not to limit itself to technological innovations and their presumed social consequences. Capitalism's central influence needs also to be taken aboard, and what is impossible to ignore here is the critical role of market practices and associated private interests. The bald fact is that developments in media worldwide – undeniably central to the information environments we must inhabit – are dominated by commercial concerns, and accompanying these are their priorities and interests. There is no media, *then* content, at least not in any straightforward way. On the contrary, media are being developed with content that expresses commercial edicts *from the outset*. By and large, this means infotainment (sport, movies, soaps and drama-documentaries). It is not a matter of one writing this in order to object, but rather to insist that it be acknowledged that infotainment is the primary content because it is that which is commercially the most lucrative, more so than, say, educational or historical content.

Furthermore, corporations that are at the forefront of this trend are also, because they are focused on commercial viability and returns on their investment, overwhelmingly disposed to provide support for the market system. Accordingly, they are organized on commercial lines, revenue coming from subscription and/or advertising, and content is tailored to the need to appeal to consumers and

advertisers. To be sure, at the margins this may lead to some extension of informational diversity and depth, but the occasional gem must not allow us to underestimate the majority that is of a familiar type. Moreover, the routine output of this corporate media typically extols the market, deplores government involvement in business and warns against state intervention whenever it is proposed (save when bailing out the banks in 2008 when the market system appeared close to collapse), and the owners of such media are even more vociferous in championing these ideological propositions. The antipathy expressed by James Murdoch (2009) in his McTaggart lecture towards public service broadcasting, long established in Europe and most firmly founded in Britain but a hindrance to the commercial expansion of News Corporation, is testimony to this belief.

The distinguished business journalist Robert Peston (2009) offers insight here and a rebuttal to Mr Murdoch. Reflecting on the banking crisis of late 2008, he worries that so few of his fellow journalists had expressed misgivings about the deregulation of the City (which eased regulation and aided a decisive shift towards all electronic trading) that had been arranged by the Thatcher government in the late 1980s. Peston found that media 'did little to challenge the [pre-2008] consensus that the world had entered an era of continuous low-inflation growth', while 'some parts of the media . . . pump[ed] up the bubble'. The media were partial and overly sympathetic to the deregulation measures, and because of this they failed to act as journalists should – i.e. to be independent, investigative and questioning.

Herbert Schiller would certainly have endorsed this judgement and he would have been right to do so. The deregulation of the City of London found favour with financial and business journalists especially because they were compromised by their location and presumptions. Media thereby was itself caught up in the transformations that constituted neo-liberalism; too many journalists were working as active agents in advocating changes of which technological innovation, liberalization and the withdrawal of state regulation were a part. In response, Peston (2009) argues that public service journalism, independent of commercial interest and pressure, is 'about informing and educating the public so that there is democratic participation in big decisions about the future of capitalism'. Journalists employed by corporates, no doubt schmoozed by PR representatives, for the most part enthused about the City's deregulation, failing democracy by ignoring critics and not looking more closely at banking practices. They were compromised by their employers and connections, for which reason, Peston (2009) adds, 'we certainly shouldn't assume that a commercial digital market in news [as proposed by the Murdochs] will distribute information in a way that would support a healthy democracy'.

Further, just as finance and banking were being shaped by this climate of opinion that heightened marketization, encouraged innovation and risk, and brought about new challenges and opportunities (take-overs, buy-outs, new business models, global openings), so media were profoundly influenced. The last twenty years and more have, for example, placed huge strains on newspapers and television, with digitization, globalization and 24/7 content simultaneously threatening and beckoning diverse parties. At the heart of these has been the dynamic and compulsion of commercial success and failure. Newspapers are apprehensive

about their future as audiences for hard copy decline, costs rise, advertising revenue shifts to the internet and competition comes from much further afield. This cannot just be ascribed to a technological revolution that heralds the Information Society because it is inseparable from the political economy of neo-liberal capitalism, where market principles and practices prevail. The surge in celebrity coverage, in advertorial press and tabloid-style journalism is at one with this.

There is no intention here to 'read off' everything as an expression of capitalism, though it is as well to be reminded of the continuity of its guiding principles. Neo-liberal capitalism is transcending national borders, making it easier for corporations to compete globally and harder for nation states to police them. Nevertheless, in most countries the state still matters hugely. In terms of information – to remain centred on media – national broadcast (and now digitized) systems remain of enormous significance. In the UK the institution of the BBC is of signal import. It is antipathetic to the more aggressive corporate media interests since it is founded on non-commercial foundations. An obligatory licence fee for all television owners (far cheaper than any subscription provider) offers access to a large range of channels and diverse content. Its news, now available via the internet, is free to anyone, anywhere. As such, it is a hindrance to commercial organizations, which find efforts to charge a fee for their news are undermined by this free information. Moreover, its journalists, like Robert Peston, operate on a creed of 'public service', which means they are neither hindered by the dictates of the newspaper or media magnate nor shaped by the need to have their material made saleable. Instead they profess a commitment to impartiality, with an ambition to inform and educate the public about events and issues. There are occasions when this ideal is not met and much news coverage in the UK, in ITN, Channel 4 and even Sky, is also influenced by this commitment. However, there can be no doubt that the BBC (*tout court*, but here specifically as regards news) is somewhat out of step with neo-liberal trends. This provides a motive for stinging attacks on what is arguably Britain's most important cultural institution for it being 'pink', 'leftist' and 'molly-coddled' because immune from the 'real world' of business, and encourages calls for it to be restricted in its operations so that commercial media might be able to 'operate on a level playing field' instead of facing a state-subsidized competitor.

The key point, to reiterate, is that capitalism is an essential term if we wish to understand recent changes, but we should beware the risks of oversimplification when we adopt the concept. Capitalism in the twenty-first century is not the same as it was even a generation ago, and these transformations should be recognized. Nevertheless, it is equally vital to acknowledge the continuities that prevail in this dynamic economic system and which have major consequences for the informational domain. By the same token, an historical account of capitalism helps us understand the significance of public service institutions such as the BBC, not least because they are of such import in supplying information to the wider populace. Such institutions – one could add others, notably higher education and public libraries – are being influenced by changes wrought by neo-liberalism, and I have documented several in Chapter 9. Public libraries, for instance, have been under sustained attack for at least two decades on grounds that the exchequer cannot afford them and the market can provide a superior service, and universities have

shifted markedly towards corporate practices, from their management styles, their sources of revenue to the research and courses they undertake. Public service institutions may be on the defensive, but they have still not been incorporated into the market system. Their autonomy provides vital space to non-orthodox information, deepening and widening what becomes available. There was a time when public service organizations were conceptualized as contributors to the public sphere. As I made clear in Chapter 7, this is scarcely credible nowadays in an epoch of globalized relationships, fragmented audiences and a denuded nation state, though if we limit ourselves to the *political public sphere* the idea retains salience. Nonetheless, this does not mean that one discounts public service institutions, especially where they are informational institutions, since they contribute to a better informed public that is provided with greater opportunities to access information than an out-and-out commercial system would allow. It is my view that we are as well to think of this as information getting into the public domain, a more modest notion than the public sphere.

Though I am convinced that we can best understand informatization by focusing attention on the historical development of capitalism, I am not persuaded that this is the whole story. At various points in this book I have drawn attention to theoretical knowledge and the role it plays in contemporary life. Rarely discussed by Information Society thinkers, theoretical knowledge has little if anything to do with ICTs, tradable information, occupational shifts or information flows (though obviously each of these has an influence on theoretical knowledge). Still it is possible to see it as one of the distinguishing features of the present time. Daniel Bell introduced the term, yet he paid insufficient attention to it, preferring quantitative measures such as the growth of higher education and research and development employment as evidence of the emergence of an Information Society. Theoretical knowledge, that which is abstract, generalizable and codified, may be readily acknowledged in matters of science and technology, but Nico Stehr (1994) argues, with some success, that it is of much wider currency, indeed that it is constitutive of how we live today. Anthony Giddens's theme of reflexive modernization puts stress on this abstract and generalized knowledge in personal as well as social matters since it is central to decision making, risk assessment and the control over our destinies that it brings. By this token, theoretical knowledge is at the heart of contemporary social relationships. It will be remembered that this is not to endorse claims that we inhabit an Information Society (though this could be argued, I think, more effectively than is done by calculations of how much ICT is in use), since Giddens is at pains to say that the origins of theoretical knowledge lie in modernity itself – what our present 'high modernity' brings is an intensification of well-rooted processes. To be sure, what is meant by theoretical knowledge can be flaky at the edges, but its primacy may well be something that does set us apart from our predecessors, most importantly perhaps in the potential it offers for us to determine our own futures. The upshot of this is that, in my view, while we can best understand information today by locating it within the context of capitalism's ongoing development, we need also to acknowledge that reflexive modernization (and the theoretical knowledge which accompanies this) does provide opportunities for directing our futures in unprecedented ways.

This may be contrasted with the position of those many who argue for the emergence of an Information Society and recourse to deterministic explanations for the coming of the new age. These are considerably more sophisticated than the crude technological determinism adopted by technoboosters such as Alvin Toffler (1990), Nicholas Negroponte (1995) and Michael Dertouzos (1997). Nonetheless, there remains an undercurrent of technological determinism in those who conceive of a 'second industrial divide' (Piore and Sabel), a new 'mode of information' (Poster) or an 'informational mode of development' (Castells). Moreover, as Krishan Kumar (1978) definitively showed several years ago, at the back of Daniel Bell's concept of post-industrialism lies a similarly, if more sophisticated, deterministic account of change, this time through the hidden hand of 'rationalization', which, of course, finds its major expression in the application of improved technologies, but which also is evidenced in the development of more refined organizational techniques. In the foregoing chapters I have been at pains to underline the shared way of seeing of thinkers who, however apart they might seem at first sight, hold in common certain principles. With those who assert that we are witnessing the emergence of an Information Society, high on that list of shared principles is technological (or in Bell's case technical) determinism.

To restate the two major complaints about such an approach: it at once singles out technology/technique as the primary cause of change (which is oversimplistic) while – and in my view more significantly still – simultaneously presuming that this technology/technique is aloof from the realm of values and beliefs. I do not think it has been difficult to demonstrate that this is a misleading perception, but, as we have seen, it will keep infecting analyses of informational developments.

The heavy hand of technological determinism appears to fall wherever techno-enthusiasts (and on occasion techno-dystopians) discover innovations that they are sure will change the way we live. It is exasperating for a social scientist to have to advise that both technology and change are more complicated than this. It is as well to recall the words of the late Steve Jobs, insisting that 'you can't start with the technology and try to figure out where you are going to try to sell it' (quoted in Schofield, 2011). Jobs had learned that one should *not* 'sit down with the engineers and figure out what awesome technology' could be made. Better by far to study what the customer wanted and then design with that in mind. Apple's record of innovation and Jobs's words must persuade that technology, in and of itself, is not the engine of change because successful technological developments such as his incorporate social dimensions into the design, which, in the era of software supremacy, is an ongoing phenomenon (think here of Apple's pioneering of apps, something driven by users that help reshape mobile information services).

Above all, technological determinism seems to me an approach which misconceives social change because it desocializes key elements of change, persistently separating technology/technique from the social world (where values and beliefs are found), only to reinsert it by asserting that this autonomous force is the privileged mechanism for bringing about change. Not surprisingly, those who envisage a dramatic but asocial 'information technology revolution' and/or radical shifts in technical efficiency are easily persuaded that these *impact* in such a manner as to bring about an entirely novel form of society.

As I argued in Chapter 2, those who argue that an Information Society has arrived (or is in the process of arriving) in recent years operate with measures that are consonant with this technical determinism. That is, it is striking that they seek to identify the Information Society by counting phenomena which they assume characterize the new order. These may be information technologies, the economic worth of information, the increase in information occupations, the spread of information networks or simply the obviousness (and hence not needing to be counted) of an explosive growth in signs and signification. Subscribers to the notion of an Information Society quantify some or other of these indicators and then, without any justification other than that there is a lot more information and information technology around, they claim that these quantifiable elements signal a qualitative transformation – namely the emergence of an Information Society.

Similarly, when one presses forward to examine their definition of information itself, most often one comes across a related principle: information is presumed to be a quantifiable phenomenon that is separable from its content – hence, it is so many ‘bits’, or so many ‘price’, or so many ‘signs’, seemingly anything but something which has a meaning (though, as Theodore Roszak (1986) reminds us, to most people the content of information – what it means – is of the essence). Then, having adopted a non-semantic definition of information that can more readily be quantified, one again comes across the allegation that a quantifiable increase in information heralds a qualitative change in society and social arrangements (an Information Society).

It appears to me that those who explain informatization in terms of historical continuities give us a better way of understanding information in the world today. This is, not least, because they resist artificial measures of the Information Society and of information itself. While, of course, they acknowledge that there has been an enormous quantitative increase in information technologies, in information in circulation, in information networks and what not, such thinkers turn away from such asocial and deracinated concepts and back to the real world. And it is there, in the ruck of history, that they are able to locate an information explosion that means something substantive and which has discernible origins and contexts: that *these* types of information, for *those* purposes, for *those* sorts of groups, with *those* sorts of interests are developing.

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