



Instructional Technology

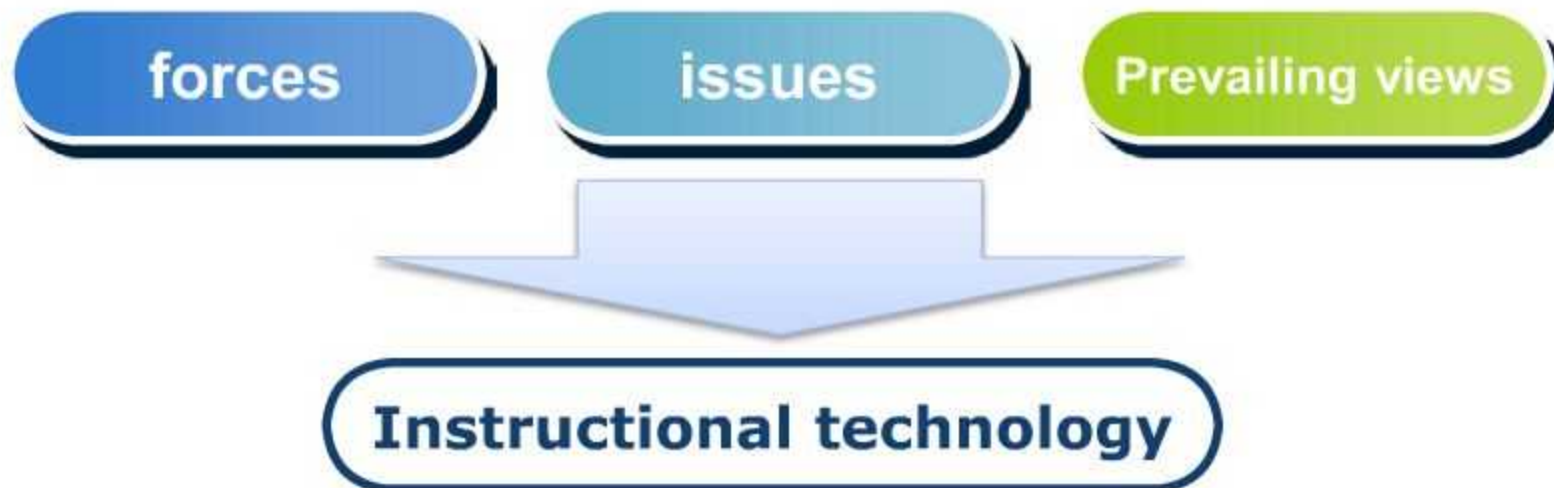
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Lesson 1

What Is Instructional Technology?

It is hoped that the preceding discussion has managed to disclose and explicate the forces, issues, and prevailing views that characterize instructional technology. I have pointed out that the field may be viewed, first, as a set of professional people concerned with the development and use of instructional techniques having the purpose of promoting human learning.



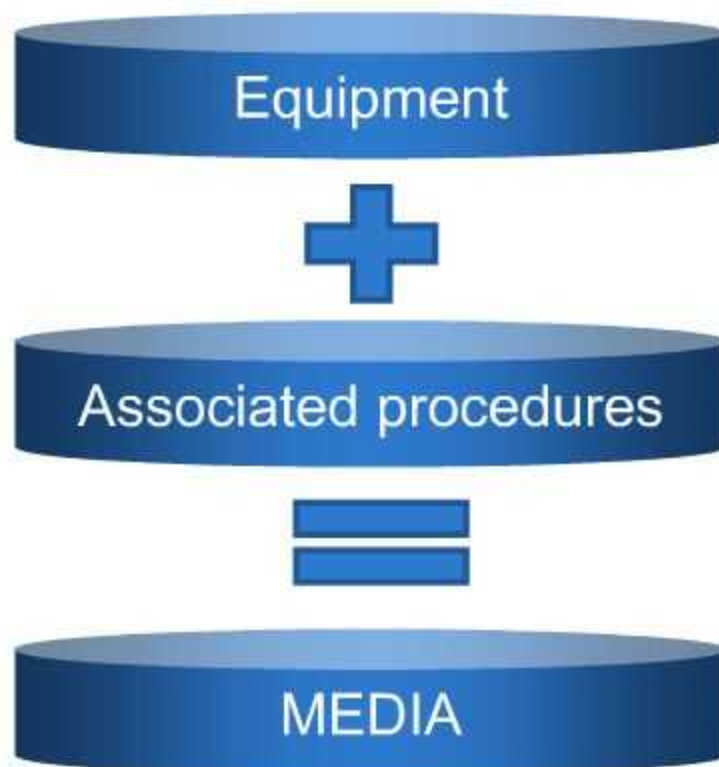
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The learning with which these people are concerned may occur in the school, in the industrial classroom, in the specialized learning center, or in the home.



Hot Tip

Learning is often initiated and brought about by communications to the learner, and these communications are frequently delivered by equipment and its associated procedures, commonly referred to as media. Currently, these media include such "high-tech" items as television and computer systems in their various forms.

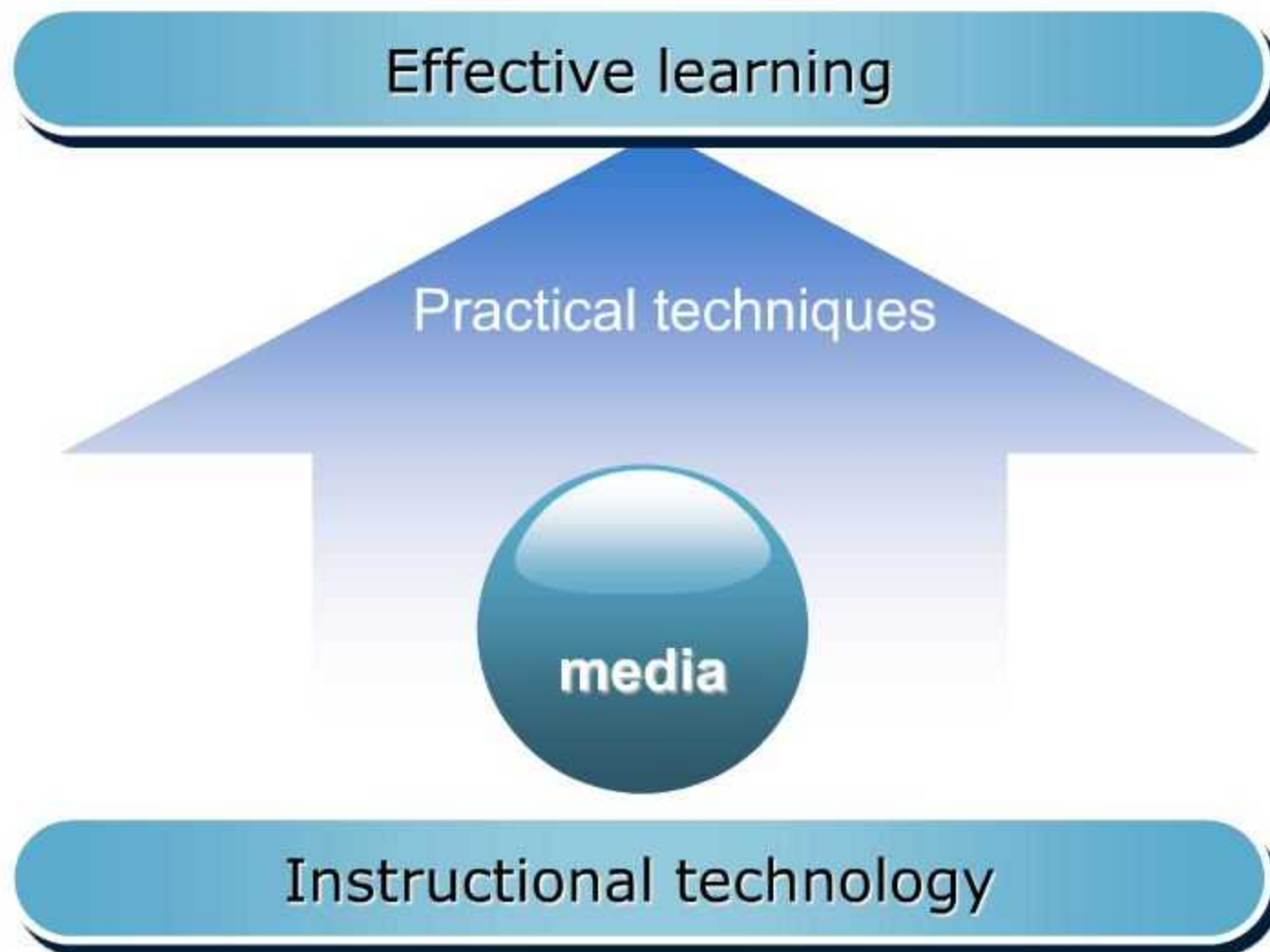


The technical knowledge that constitutes instructional technology includes practical procedures for using existing media to deliver instruction, and also to deliver portions of instruction that supplement the communications of an instructor.



To supplement the communication of an instructor

Instructional technology includes practical techniques of instructional delivery that systematically aim for effective learning, whether or not they involve the use of media.



It is a basic purpose of the field of instructional technology to promote and aid the application of these known and validated procedures in the design and delivery of instruction.



Of course, one source of background knowledge comes from the technology of hardware systems themselves, and from the new inventions and modifications that continue to appear.



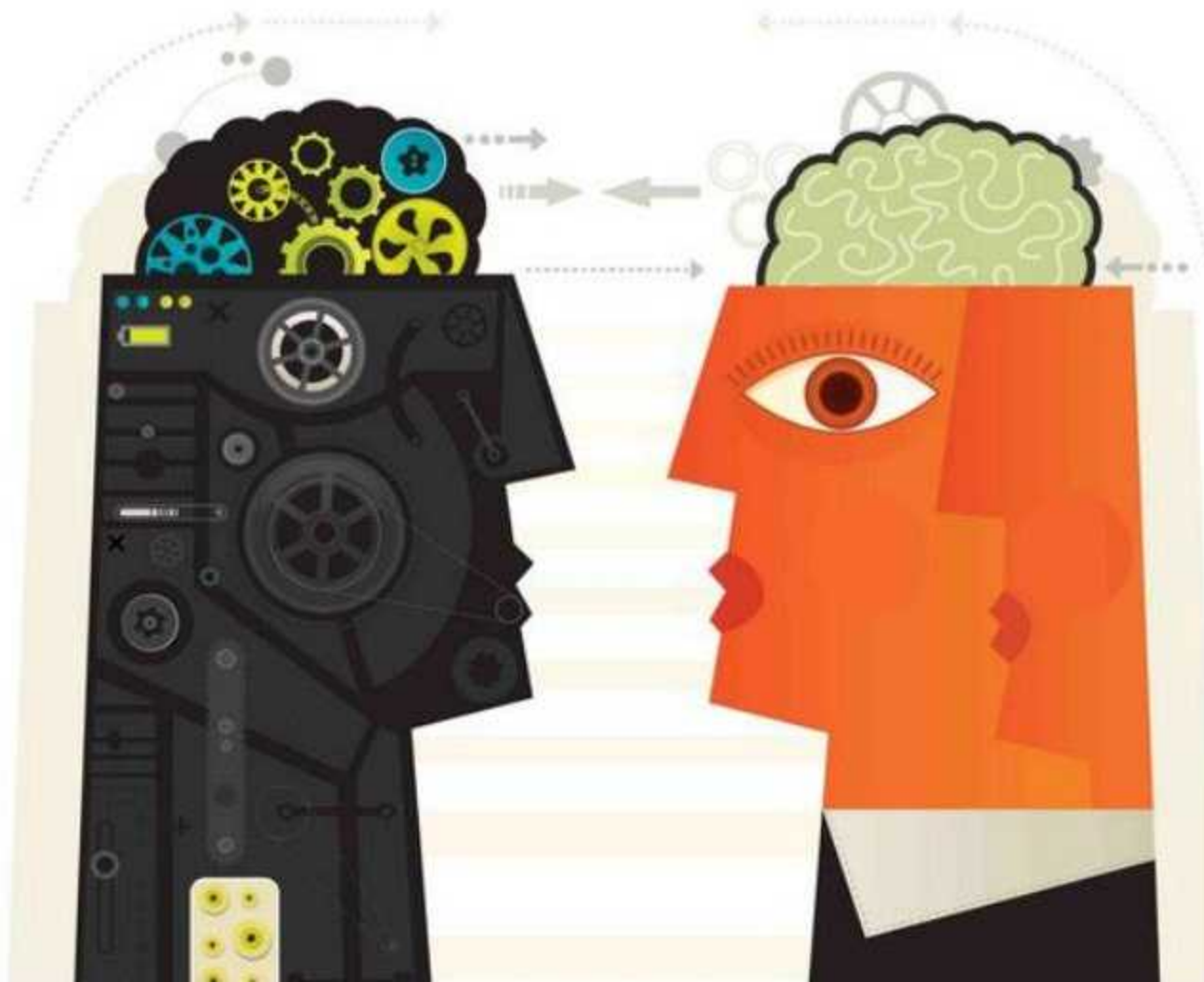
Another source of fundamental systematic knowledge derives from the research of cognitive psychologists who apply the methods of science to the investigation of human learning and the conditions of instruction.



The findings of research on human learning provide a basis for the formulation of techniques of instruction that focus of learners and their characteristics.



Computer science and in particular that branch of research called artificial intelligence, contributes fundamental knowledge of human cognition and problem solving.



And research in the field of communication continues to provide a basis for the development and evaluation of instructional techniques.



The dedicated professionals who ally themselves with instructional technology appear to share a set of general beliefs, agreed to with individual degrees of fervor and misgivings.



General beliefs

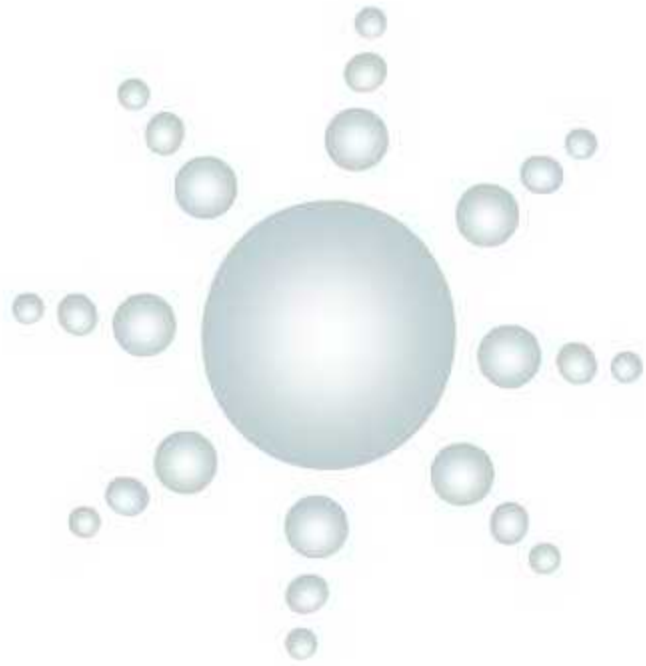
Individual differences

In general, these ideas incorporate attitudes regarding the promise of new developments in equipment technology coupled with understanding of processes of learning in bringing about improvements in ways of delivering instruction.



In line with this view, research efforts in instructional technology seek to investigate and verify the features of communications to human learners that optimize learning, and to discover how these features may best be planned and executed with the use of the various communication media and their combinations.





Lesson 2
Instructional
Technology : A History

What is instructional technology? Over the years, many definitions have been offered, but no single definition has been universally accepted. The term instructional technology has meant and will continue to mean different things to different people.



Yet most definitions of instructional technology can be classified as one of two types. One type of definition equates instructional technology with a particular set of instructional media, often referred to as audiovisual devices. The other type of definition describes instructional technology as a process, often labeled the systems approach process.



Audiovisual devices



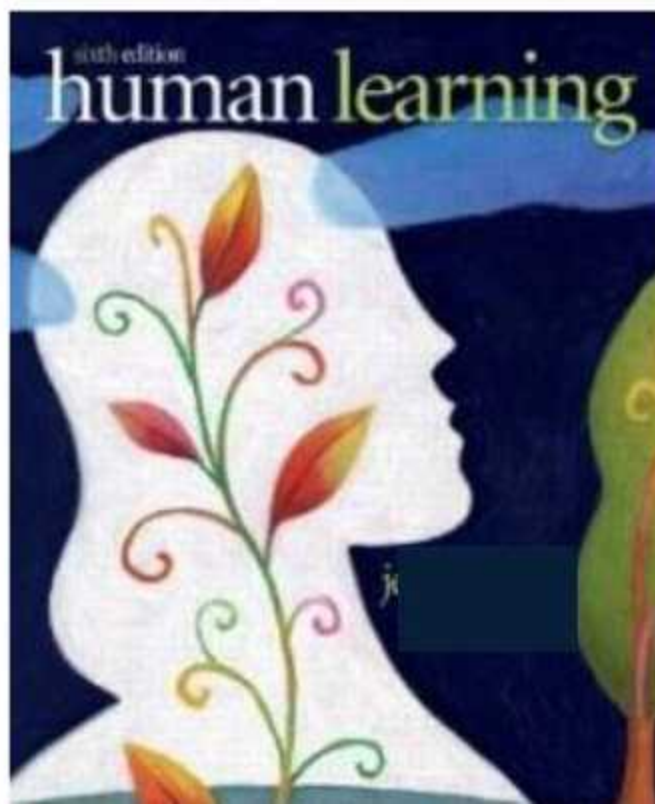
System approach

Perhaps the best example of these two types of definitions is contained in a statement issued by the Commission on Instructional Technology (1970):

Instructional technology can be defined in two ways. In its more familiar sense, it means the media born of the communications revolution which can be used for instructional purposes alongside the teacher, textbook, and black board [*italics added*].... The pieces that make up instructional technology [*include*]: television, films, overhead projectors, computers, and other items of "hardware" and "software" (to use the convenient jargon that distinguishes machines from programs)....



The second and less familiar definition of instructional technology goes beyond any particular medium or device. In this sense, instructional technology is more than the sum of its parts. It is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching [italics added] in terms of specific objectives, based on research in human learning and communication, and employing a combination of human and nonhuman resources to bring about more effective instruction.



Today, many professionals in the field think of instructional technology as a systems approach process, "a systematic way of designing, carrying out, and evaluating the total process of learning and teaching." However, it is important to realize that most of those outside the field, as well as some of those who consider themselves to be part of it, still think of instructional technology as audiovisual devices. Thus, the two types of definitions still persist; instructional technology is thought of both in terms of the systems approach and audiovisual devices.

A third major concept associated with the field of instructional technology is the notion of individualized instruction. As the Definition and terminology Committee of the Association for Educational Communications and Technology (1972) has indicated:

Audiovisual devices

System approach

Individual instruction

The educational technology approach has been directed toward expanding the range of resources used for learning, emphasizing the individual learner and his unique needs [*italics added*], and using a systematic approach to the development of learning resources.

