

Definition of the Field of Instructional Technology

History and Evolution of the Definition

Instructional technology is a field that is constantly undergoing change. It is a dynamic field that changes within each environment. In 1963 the Association for Educational Communications and Technology (AECT) attempted to define the field as:

“Audiovisual communications is the branch of educational theory and practice concerned with the design and use of messages which control the learning process. It undertakes: (a) the study of the unique and relative strengths and weaknesses of both pictorial and nonrepresentational messages which may be employed in the learning process for any reason; and (b) the structuring and systematizing of messages by men and instruments in an educational environment. These undertakings include planning, production, selection, management, and utilization of both components and entire instructional systems. Its practical goal is the efficient utilization of every method and medium of communication which can contribute to the development of the learners' full potential” (Ely, 1963, pp. 18-19).

This first definition of the field provided professionals with a detailed list of the roles that instructional technologists would assume and it provided a basic framework to the field. The 1963 definition of the field was redefined in 1970 by the President’s Commission on Instructional Technology (PCIT). The new PCIT definition was:

“Instructional technology ... is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication and employing a combination of human and non-human resources to bring about more effective instruction” (1970).

This definition of the field focused more on learning objectives and the importance of teaching the objectives based on researched techniques and methods; which is “probably due to the influence of B. F. Skinner and Robert Mager” (Seels & Richey, 1994, p.17). Kenneth Silber’s 1970 definition of the field of Instructional Technology was also important because it differed from the 1963 definition in three ways. Kenneth Silber defined the field as:

“Instructional Technology is the Development (Research, Design, Production, Evaluation, Support-Supply, Utilization) of Instructional Systems Components (Messages, Men, Materials, Devices, Techniques, Settings) and the Management of that development Organization, Personnel) in a systematic manner with the goal of solving educational problems” (Silber, 1970, p. 21).

Silber’s definition differed from the previous definition because the term ‘development’ in Silber’s definition encompasses design, production, utilization, and evaluation of technology; whereas previous definitions referred mainly to individuals’ role as developers of a product (Seels & Richey, 1994). Silber also changed the scope of field in his definition by adding new components to the definition which in turn made the roles of educational technologists broaden (Seels & Richey, 1994). Lastly, Silber introduced the term ‘problems’ and stated in his definition that instructional technologists’ goals

are to systematically solve educational problems (Seels & Richey, 1994). After the 1970 revisions to the definition of the field, the AECT attempted to define the field again in 1972. AECT defined the field as:

“Educational technology is a field involved in the facilitation of human learning through systematic identification, development, organization and utilization of a full-range of learning resources and through the management of these processes” (1972, p. 36).

This definition is significant because it was the second definition that resulted in determining that educational technology stands apart from other fields within education. The AECT later redefined their 1972 definition in 1977 to provide a more elaborate definition that stated:

“Educational technology is a complex, integrated process involving people, procedures, ideas, devices and organization for analyzing problems and devising, implementing, evaluating and managing solutions to those problems involved in all aspects of human learning” (p. 1).

This definition of the field was completely different from all the previous definitions simply because of the depth and breadth of the definition. “It consisted of sixteen statements spread over seven pages of text, followed by nine tables elaborating on some of the concepts mentioned in the statements, as well as nine more chapters (more than 120 pages) that provided further elaboration” (Reiser & Dempsey, 2002, p. 9). The 1977 AECT definition focused on the systematic design process; the same process instructional technologists utilize today within the field. Furthermore, in this definition the ‘analysis phase’ was not discussed. Then in 1994, AECT changed the definition of the field again. The 1994 AECT definition of the field has been the most commonly used definition to define the field of instructional technology. This definition defined the field as:

“Instructional technology is the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning” (Seels & Richey, 1994, p.9).

This definition set itself apart from all the others because it specifically listed the different domains within the field of instructional technology. The domains in this definition were listed because they “encompass areas of concern to practitioners and scholars” (Seels & Richey, 1994, p.2). So, the domains are a result of previous definitions trying to list the different roles and components of instructional technology. Now, each of these components and roles are classified into one of the five domains of instructional technology. Also, this definition switched from using the term ‘educational technology’ to the term ‘instructional technology.’ The switch in terminology is a result of numerous factors. Seels and Richey (1994) explained the switch by stating, “Because the term ‘Instructional Technology’ (a) is more commonly used today in the United States, (b) encompasses many practice settings, (c) describes more precisely the function of technology in education, and (d) allows for emphasis on both instruction and learning in the definitional sentence, the term ‘Instructional Technology’ is used in the 1994 definition, but the two terms are considered synonymous” (p.5).

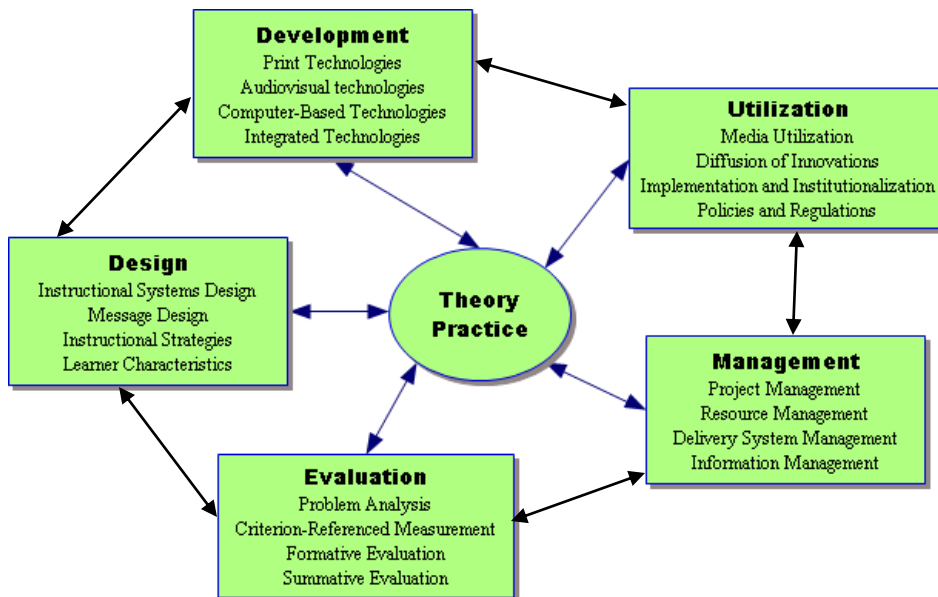


Figure 1: The 1994 Domains within the Field of Instructional Technology and the Relationship Between Domains (adapted from Seels & Richey, 1994) – Adopted by AECT

In 2007, AECT redefined the field once again. This new definition defined the field as:

“Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources” (AECT, 2007).

According to the new definition, the AECT used the term ‘educational technology’ instead of using ‘instructional technology’. Granted this definition is provisional and could possibly be redefined again over the next few years, due to the dynamic state of the field and its potential growth in the upcoming years. According to the Terminology Committee of the Association for Educational Communications and Technology, “Educational technology is viewed as a construct that is larger than instructional technology, as education is more general than instruction. Furthermore, educational or instructional technology can be seen as discrete elements within performance technology, the holistic approach to improving performance in the workplace through many different means, including training” (AECT, 2007, p. 13). Although the terminology has changed, the term ‘creating’ is synonymous with designing and developing which are two of the domains within the field. The terms ‘improving performance’ can be a part of the analysis and evaluation domain because it requires problem analysis and evaluation of the solution to ensure that the solution meets the needs of the client. The terms ‘using’ and ‘managing’ are also synonymous with domains of utilization and management. Lastly, this definition focuses on the ethical practices within the field. The AECT believes that ethics are not just guidelines but a way in which instructional technologists should approach work (AECT, 2007). The most recent version of the definition serves as an umbrella that encompasses all of the components and roles from previous definitions, while also further broadening the field of instructional technology.

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