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The definition of educational technology: An emerging stability

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Current definitions seem to meet the tests of clarity, currency and utility in this field

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The ferment over the definition of the field of educational technology seems to have subsided. The introspection which characterized the growth and development of this eclectic field has turned to other matters. Professionals in the field appear to be satisfied that current definitions are reasonably serviceable. Efforts are directed toward living out the definitions which have emerged in the past dozen years. In this period of relative calm, it seems appropriate to review the current state of definition and to identify the remaining issues which still need to be debated.

Why bother?

When James D. Finn wrote the foreword for one of the first official definitions of the field (1963), he chose the words of Confucius to lend weight to the need for definition:

"If the Prince of Wei were to ask you to take over the government, what would you put first on your agenda?"

"The one thing needed," replied the Master, "is the definition of terms. If terms are ill-defined, statements disagree with facts; when statements disagree with facts, business is mismanaged; when business is mismanaged, order and harmony do not flourish; when order and harmony do not flourish, then justice becomes arbitrary; and when justice becomes arbitrary, the people do not know how to move hand or foot." (p.iv)

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Definitions are required to give a consistent meaning to a word or term. This consistency provides a common referent for users of the word or term. It permits a universe of discourse among users and would-be users. A well-defined term facilitates communication. It serves as a shorthand for individuals who share a common meaning.

When a field is defined, individuals gain the benefits of a precise definition in their day-to-day operations. Such definitions help to indicate who is "in" and who is "out." The purpose of such a distinction in a broad field such as education is an aid to relating one area to another. Definitions do not create a field but, rather, help to explain its functions, purposes and roles to those within and those outside the area.

Some major decisions rest upon the adequacy of a definition. For example, in determining content of a professional curriculum and potential overlap of one area with another, a definition can assist in charting the territory. Certification requirements for personnel are sometimes predicated on definitions which have been prepared and sanctioned by professional groups. Job descriptions may be written around definitions as functional responsibilities are inferred from the words used.

A 50-year perspective

Definitions have followed the changing paradigms of the field. Definitions have been tied to the prevalent labels of the field. In the pre-World War II period, the visual education or audiovisual education term was used. The definition of Hoban, Hoban and Zisman (1937) was illustrative of the various definitions which emphasized the products or things of the field. Lumsdaine referred to this perspective as the physical science approach to the field (1964).

"A visual aid is any picture, model, object or device which provides concrete visual experience to the learner for the purpose of (1) introducing, building up, enriching, or clarifying abstract concepts, (2) developing desirable attitudes, and (3) stimulating further activity on the part of the learner." (p. 9)

This definition persisted through the post World War II period and well into the 1960s. In some quarters its strength was evident in part of the definition of educational technology offered by the Presidential Commission on Instructional Technology (1970). The Report said that the field could 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 blackboard . . . the pieces that make up instructional technology: television, films, overhead projectors, computers and the other items of 'hardware' and 'software.' " (p. 21)

This concept presented a stumbling block to professionals who were attempting to accelerate the evolution of the field to a more contemporary interpretation. Even as the communications emphasis emerged in the late 1950s and early 1960s, there were attempts to bring this major conceptual contribution into the definition of the field. In 1961, during his presidential term of the Department of Audiovisual Instruction (DAVI), James D. Finn established the Commission on Definition and Terminology. The work of this Commission was supported by the Technological Development Project, a USOE-funded program within the National Education Association. The Commission report (1963) was published as Monograph #1 of the Project and was issued as Volume 11, No. 1 of **AV Communication Review.**

The 1963 definition drew upon learning theory and communication and used the term audiovisual communication as a temporary expedient.

"Audiovisual communication is that branch of educational theory and practice concerned primarily with the design and use of messages which control the learning process." (p. 18)

The strong behavioral emphasis at the time seemed to call for the word "control," but the objections from the field were many and the definition was altered by some users to "facilitate" rather than "control."

The work of the Commission continued for another 15 years with one interim definition in 1972 prior to the current monumental work, *The Definition of Educational Technology* (1977). The 1972 definition seemed to be a natural evolution and incorporated the new directions in which the field was moving. The behavioral science aspect of the field was becoming evident.

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

The Association for Educational Communications and Technology (AECT, formerly DAVI) was responsible for the major definitions of the field from the establishment of the Commission on Definition and Terminology to the present. The one highly visible effort outside the professional field was the Presidential Commission on Instructional Technology which reported its findings in 1970. The first part of the definition (stated earlier) focused on the products of the field; the second part recognized the metamorphosis which was taking place.

"(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 nonhuman resources to bring about more effective instruction." (p. 21)

This definition has been widely used. It is often quoted as *the* definition of the field even though AECT has published its definitive work. The AECT definition stemmed largely from the work of Silber (1970) and was further developed by a diligent and hardcore group within the Definition and Terminology Committee. The definition first appeared in 1977 after drafts had been discussed by the educational technology community within AECT and revised several times by the Committee. The first sentence of the definition is often used to represent the entire statement.

"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)

The introductory sentence before the definition itself states that "The following definition—all 16 parts—are meant to be taken as a whole; none alone constitutes an adequate definition of educational technology." (p. 1) This warning has caused some concern among those who are accustomed to terse dictionary definitions and may have led to reduced usage among members of the profession.

Issues

There appears to be no hue and cry for a new or revised definition of educational technology. It could be that the silence connotes satisfaction with the definitions which now exist. It could be that there are more important matters before the community. It could be that those who were so vitally concerned with definitions are tired and have moved on to other projects. There is a Definition and Terminology Committee of AECT, but there do not seem to be any major issues on the agenda. What are the issues regarding definition for the educational technology professionals?

1. **Which definition will survive?** Clearly, the 1977 AECT definition—all 16 parts of it—serves as the official statement of the profession. The publication has gone through several printings and is in high demand throughout the world. It serves as a comprehensive explication of what the field is about. Neophyte professionals study it as the fountainhead of the field's origins and scope. It will persist for many years and will be the touchstone for any future efforts. The need for a shorter dictionary definition will probably be filled by the second definition of the Presidential Commission on Instructional Technology (1970).

It is succinct and self-standing. Its simple elegance communicates the purpose, processes, and fundamental elements of the field. It carries the weight of a distinguished panel who made up the Commission. The 1970 definition has withstood more than a decade of use and has not been seriously challenged.

It is likely that both definitions will survive but for different purposes. They are not basically incompatible, but it is unfortunate that there cannot be a single definition which binds the profession and is widely accepted by all.

2. **Who is In and Who is Out?** The rapid development of the computer in schools has brought about the emergence of a new group of specialists who are calling themselves "educational technologists." They have embraced the label but not the concepts of the field. The current crop of computer specialists in education consists primarily of teachers and professors who have acquired skills with the microcomputer and feel compelled to share this knowledge with others. There is nothing wrong with this advocacy but to call such people "educational technologists" is to violate the prevailing definitions of the field.

There is a familiar ring to the enthusiasm for one medium or device. Educational technologists who have been active for many years have seen the single issue zealot who pushed films, radio, television, programmed instruction and several other media during the past 50 years. The people in education who advocate microcomputers demonstrate some of the same characteristics as their earlier colleagues who believed that one medium or another was about to revolutionize education. They feel that they have discovered a device or medium which will engage the learners as no teacher has ever done; they see potential for optimum learning by creating replicable instructional packages which can be used throughout the nation; and they feel that the use of microcomputers is consistent with the American technological psyche, which embraces new technologies as new religions. There is nothing inherently "wrong" about these perceptions; they are simply naive in light of the history of innovations in schools.

3. **Are the prevailing definitions of educational technology too broad?** To "outsiders," the first impression of the 1977 AECT definition is one of brash overextension. Colleagues in education argue that the definition includes

all of education: " ... (an) 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." That involves **all** of education, especially teaching. It is difficult to counter such arguments except to say that the definition goes on for seven pages and that all sixteen parts must be read to get the complete statement.

The future of educational technology definitions

Educational technology as a field of study is relatively new among the fields and disciplines. It is a field marked with significant changes during the past 50 years. The attempts to define the field have reflected a concern for its raison d'etre. A healthy exploration of the rationale and concepts of any field must be to its credit. Educational technology has been diligent in serious contemplation of its roots and its future direction. The definitions which have surfaced in the past two decades show maturity and growth. Even though the past five years have been relatively calm in regard to definition, it has been a time of testing. The 1977 AECT definition appears to be serving the profession well. The 1970 Presidential Commission definition provides the succinct statement which many people require to communicate the essence of the field.

It does not appear as if new efforts to define the field will develop as long as the current definitions meet the tests of clarity, currency, and utility. Confucius would be pleased.

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