Annotations

I. Definitions of Educational Technology
   a. Many definitions and some may conflict or be incomplete
   b. Can be considered either a design science or a collection of different research interests
   c. Commonalities do exist include theoretical knowledge from different disciplines plus experiential knowledge to improve education, facilitate learning processes and increase performance of education system (effectiveness and efficiency)
   d. Educational technology is a field; not just technology, multimedia, or conditioning

II. Goals of Educational Technology
   a. Often to change pedagogy or improve current practices by providing a new perspective on teaching, learning and general outcomes
   b. Can be considered a design science to help understand how different environments impact learning, cooperation and motivation

III. Perspective of Educational Technology
   a. Instructional Design – also an engineering discipline including learning, pedagogy, tools and methods
   b. Design-Research – an interdisciplinary approach leading to improvement in a given area
   c. Fundamental Research – focuses on narrow, defined problems
   d. Institutional – fields of study are implicitly defined by institutions in a technical manner
   e. Technology – new technology drives educational research and practice
   f. “Where is it Used?” – variety of locations including distance ed, blended learning and informal learning

IV. History of Educational Technology
   a. 1950s – two major design still used today – programmed instruction and techniques varying instruction and time (designed based on these termed computer based training – CBT or computer assisted instruction – CAI in the 1970s through 1990s)
   b. Defining characteristics of CBT include dividing learning content into pieces with media, multiple choice feedback
   c. 1980s and 1990s – computer based learning (CBL) focused on teaching abstract and domain-specific problem solving
   d. Current – computer-mediated communication (CMC) mediates the interaction of student and teacher through the computer. Previous models focused on the interaction between student and computer

V. Families of Educational Technologies from a conceptual perspective
a. Content vs. communication
   i. Content or courseware oriented – low interactivity and activity oriented such as CBT
   ii. Communication oriented (CMC) – activity and community based with cognitive and communication tools

b. According to learning types
   i. Identified three major teaching forms – transfer (teaching I), tutoring (teaching II) and coaching (teaching III)
   ii. Chart shows how associated technology is represented in each teaching form

c. According to interaction types
   i. Identified three types of interactions – student-content, student-instructor, and student-student
   ii. Another model includes – instructor-instructor, instructor-content, content-content, and learner-interface

Summary Reflection

This entry was not complete and that must be understood from the outset (clearly noted by the author). This leads to some repetition (design methodologies and definitions) or clarity issues when working through the article but the conceptual framework was apparent. Schneider works to define educational technology by giving a broad perspective of current definitions and issues. To help refine the definition and provide a base for more questioning, he works through the goals and history of the field to provide an appropriate base for further inquiry. For me, the section on perspectives provided the most insight as it demonstrated the complexity of trying to define a field or design science.