

Chapter III

The Context

Introduction

Today there is a range of technologies available to those who design learning events, from the old and simple to the new and complex. Key attempts have been made to develop theoretical frameworks of learning technologies and are reported in the literature of the fields of higher education, human resource development, and instructional design. These three fields are not discrete and some overlap occurs. For example, commentators in the field of instructional design state that their designs are intended for learning in many contexts including schools, higher education, organizations, and government (Gagné, Briggs, & Wager, 1995; Reigeluth, 1983). In many cases the theoretical frameworks are intended to guide the selection of learning technologies but often the conceptualizations have not kept pace with the changes in existing technologies and with the advent of new technologies. A review of the literature of these fields will help to evaluate the suitability of conceptualizations of learning technologies to their selection in the process of designing learning events.

Learning technologies are generally not applied to a whole subject, course, or program, rather they are applied to elements or groups of activities within a subject, course, or program, and it is argued that a conceptualization of these groups of learning activities to which learning technologies can be matched forms the basis of a sound technology selection method. The literature of the fields mentioned previously is reviewed to ascertain the suitability of existing conceptions of learning activities for this purpose.

A common, although not central, theme in the literature of these fields, is that a broad division of learning activities occurs when learning technologies are introduced. This is a division that is imposed by the limitations of individual technologies. While activities in face-to-face learning events may seamlessly change from one-way to two-way, when technologies are in place this is not always simple, as the technology suited to one-way activities may or may not be suited to two-way activities. One-way activities refer to those in which information flows predominantly in one direction, for example, a presentation by a student or an academic. Two-way activities are those in which information flows in at least two directions, for example, a discussion or conversation.

Categorization and Classification of Learning Technologies

In many instances attempts have been made to categorize and/or classify learning technologies. In the literature of several fields (for example: instructional design, higher education, human resource development) attempts have been made to classify learning technologies by the inherent characteristics of the technology or categorize them by the role they play in learning. As the number of technologies that are available to learning designers has grown, and continues to grow rapidly, many of the attempts to categorize them are outdated and others appear perfunctory in the context of the newer technologies.

Leshin, Pollock, and Reigeluth (1992) present a classification scheme for what they refer to as “media.” The scheme is based on attributes of the media and learning technologies and are grouped into five classes referred to as “systems.” Writing in 1992, just prior to the advent of the Web, Leshin et al. (1992, p. 256) include two high-tech systems, divided between audio visual technology and computer technology. The examples they quote for their audiovisual system include technologies that were state-of-the-art at that time, for example, video, slide-film programs, film, and live television. In their computer-based systems they include as examples, computer-based instruction, computer-based interactive video, and hypertext. The print-based system in their classification includes books, manuals, workbooks, job aids, and

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