Chapter II

A Short History of Learning Technologies

For over 3000 years from Homer, Moses and Socrates onwards, the teacher in direct, personal contact with the learner, has been the primary means of communicating knowledge…until the fourteenth century, when the invention of the printing press allowed for the first time the large-scale dissemination of knowledge though books. (Bates, 1995)

Introduction

A brief history of learning technologies provides the context to the changes in the nature and use of learning technologies, their role in learning, and the ways in which they have been conceptualized. It has been said that an understanding of the past is essential in avoiding the repetition of past mistakes and understanding the present. However, understanding the changes in learning technologies in the past and the

forces that shaped these changes will help, not only in the understanding of their role in contemporary learning, but also provide guidance for their future direction.

Recent History of Technology in Learning

Technological developments in the past 50 years have had a marked impact on the lifestyles of most people in industrialized countries and a growing number of developing countries. By the 1970s the technologies of television and telephony became more or less ubiquitous in developed countries. In this time the role of technology in learning changed as well. In the 1960s and 1970s teachers in schools and universities as well as trainers in commercial, industrial, and government organizations had opportunities to include technological *teaching aids* such as overhead projectors, filmstrips, movies, radio, and television broadcasts in the learning events they designed. In the 1960s large computers could be found at many universities but it was not until the advent of the personal computer in the 1980s that computers made an impact on teaching and learning in a majority of subject areas. In the late 1980s and early 1990s, the development of the Internet and its combination with personal computers could be argued as producing the most significant change, especially in the higher education and human resource development contexts, to the way technology was used in learning. Assuming that print is a technology, then in distance education, technology has always played a more central role to teaching and learning than in classroom, or face-to-face, teaching and learning. Due to the "separation of teacher and student" (Keegan, 1986), technology has often been used to mediate communications between teachers and students and for the encapsulation of materials. When mainstream higher education and human resource management started to use technology to mediate learning, it was to the literature of distance education that designers and managers turned to—to seek theoretical or conceptual frameworks. They sought frameworks that would allow them to generalize the techniques and technological approaches of distance education to their own contexts.

In the distance education literature, the changing technologies and their roles have been charted and divided into generations that clearly differentiate between the technologies used. As mentioned earlier, technology has always played a central role in distance education and it is obvious that transitional stages in distance education are clearly linked to the uptake of new technologies. There are limited historical interpretations of distance education in the literature, and the work of Nipper (1989) and Taylor (2001) stands out as a framework that provides an evolutionary description of technological changes in this field. In addition the work of Taylor, in the development of a conceptual framework of the generations of distance education, provides part of the conceptual basis for the models that are described in later chapters.