Chapter 6
Digital Learning Transformation:
Definitions and Factors

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ABSTRACT

The evolution of technology in education allows us to create tools that allow make us to achieve things that we can't do without, or that we used to do, but in a different way, and this difference is significant enough to change the character of activities and relationships. As a result, using a computer system generates a new environment for new applications. This dimension must be integrated into the design of the object or the difficulty is to develop an environment that will provide a context that meets pedagogical expectations and encourages the learning desired. In order to design learning environments, it is necessary to have works that study the use of technologies from the perspective of learning. In this chapter, the authors present the progression of digital education from its birth to today as well as the pedagogical practices of each mode and type of education.
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INTRODUCTION

Technology in education allows us to create tools that allow us to accomplish things we can't do without, or something we used to do, but in a new way, and this difference is significant; it changes the nature of activities and interactions. As a result, using a computer environment provides a new setting with new possibilities. This dimension must be integrated into the design of the artefact when thinking about and building computer programs dedicated to learning, or the difficulty is to design an environment that matches pedagogical expectations and encourages the intended learning.

There are numerous technological specializations within educational technology. Each one refers to a variety of pedagogical and technological concepts. Cognitive learning tools, computer-assisted language learning, computer-assisted evaluation, distance learning, computer-mediated communication, Computer-Supported Collaborative Learning (CSCL), distributed learning environments, electronic performance support systems, interactive learning environments, interactive multimedia systems, interactive simulations and games, intelligent agents on the Internet.

As a result, it is possible to assume that educational technology is a collection of subspecialties in which academics and professionals can specialize.

There are other names for new and emerging educational technology, for example:

- Digital Education
- Computer Environments for Human Learning (CEHL)
- Information and Communication Technologies for Education (ICTE)
- Learning technology
- Mediated learning
- Computer-Assisted Instruction (formerly and associated with instructional engineering)

In this chapter we present the progression of digital education from its birth to today as well as the pedagogical practices of each mode and type of education.

COMPUTER ENVIRONMENTS FOR HUMAN LEARNING (CEHL)

The term HLE (Human Learning Environment) refers to an environment that comes together human (student, teacher, tutor) and artificial (computer) agents and provides them with opportunities for interaction, either locally or via computer networks, as well as access to training resources (human and/or mediated). The machine can then

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