

Chapter 2

From Web to Web 2.0 and E-Learning 2.0

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ABSTRACT

In this chapter the authors analyze issues and ideas regarding the next generation of e-Learning, which is already known as e-Learning 2.0 or social e-Learning. They will look at the new learning tools that have emerged from the evolution of the Web, to the Web 2.0 paradigm, discussing their potential for supporting modern and independent lifelong learners. Even more important, the authors will justify the modeling of a new concept for the future of teaching and learning in the knowledge-based society in which we live. The conclusion will present a scenario for the evolution of the Web, the Semantic Web or 3.0 generation Web, which is emerging as a higher environment that will advance the design and development of e-Learning systems in promising new directions: machine-understandable educational material will be the basis for machines that automatically use and interpret information for the benefit of authors and educators, making e-Learning platforms more adaptable and responsive to each individual learner.

INTRODUCTION

With the arrival of the Internet it was possible to create virtual learning environments supported through models of bi-directional communication (synchronous and asynchronous), which justified the exponential increase of courses available online. Malvestiti (2005) established a non-conventional

distance-learning method and has since been earning increased attention from those responsible for the development of formal and non-formal learning systems and from people, who are concerned about responding to the needs of a knowledge-based society, which is demanding the need for lifelong training (Bottentuit & Coutinho, 2007).

Information communication technology (ICT) created new spaces for building knowledge. The virtual learning environment, traditionally orga-

DOI: 10.4018/978-1-60566-788-1.ch002

nized around learning platforms, began to make room for new resources and free services, which were available on the Web and could be accessed without any substantial computer knowledge. In fact, teachers and students involved in courses in the subject of e/b-learning, can today rely on a series of tools from the new Internet generation called Web 2.0. These are resources that are simple to use and do not need installation or constant maintenance. They encourage new ways of communication, expression and interaction, as well as enrich pedagogical practices, with activities such as: cooperative and collaborative work, writing stimulation, interactive and multidirectional communication, increased ease of use in data storage, creation of online pages, the creation of practice communities (Coutinho & Bottentuit Junior, 2007). Besides being free, these tools also allow knowledge to be published and shared with the rest of the academic community.

This range of tools and services opened new horizons for teaching and distance training. It provided the educator with alternative ways to use e-Learning courses, which minimized some of the traditional criticism of this model of learning. In fact, in this new generation, the learner has a more active and personalized intervention in their learning process. The possibilities of communication and interaction are greater, the bonds to a community are deepened, and the spirit of cooperation and sharing is increased (Martinez, 2003). After briefly examining the recent evolution of distance learning, this article aims to develop a set of principles relating to what we understand to be the next generation of e-Learning; this has also been called e-Learning 2.0. It will look at some of the emerging learning tools from the Web 2.0 and will analyze its potential in terms of training, and its implications on the future of learning.

PHASES IN DISTANCE LEARNING

It is possible to distinguish different phases in the evolution of distance learning. The first phase was characterized by teaching based on correspondence, that is, the teacher and the student exchange learning materials through the mail. With the emergence of audiovisual resources (educational TV, videos and cassettes), distance education moved into a second phase, providing students with alternative ways of learning; in fact, besides reading, students could hear and see pictures associated with their educational content, allowing teaching to better adapt to individuals' different styles of learning.

With the introduction of the Internet, distance learning stepped into its third phase, opening new spaces for learning and allowing synchronous and asynchronous communication between teachers and students. In this phase, the use of the electronic mail and chat tools quickly grew.

The fourth generation was marked by the replacement of scripted material (texts, notebooks and books) by digital multimedia material that could easily be accessed through teaching and learning environments and platforms (see Figure 1).

In this fourth and last phase, the process of teaching and learning was mediated by technology and therefore, new names for this new reality appeared such as, "e-learning", "online learning", "online training" or even "online education". According to Gomes (2005a) e-Learning can ensemble multiple situations from tutorial support to physical teaching but not all scenarios are effective for distance learning:

In this context e-Learning takes essentially the place of "electronic" tutorial to support students who fit in a scenario of physical teaching. The concept of e-Learning can also be associated with a complement between physical and distance activities, having as support the services and technologies available on the Internet (or another network) (Gomes, 2005a, p. 234).

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