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Chapter XIII



E-Learning Appliance

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Abstract

As e-learning gets more widespread, its definition is becoming more distinctive, implying the use of the Web for learning. The Web's original functionality was to provide access to materials located in servers. This has been the core strategy for elearning. However, the Web is becoming more versatile. The new interactive Web functionalities are organized in services offered to users. The content-based Learning Management Systems are evolving into more interactive systems providing agent-like learning services rather than only learning content. By designing an interactive environment with a learning objective, we can develop an effective e-learning appliance: the application of strategic Web functionalities on a technologically enhanced learning environment. Designed under the constructivist perspective, A Writing elearning Appliance (AWLA) is an organized set of interactive Web-based utilities that, when applied in a technologically enhanced learning environment, allow learners to develop their writing skill in language learning and fulfil writing activities in any other discipline, both individually and in collaboration.

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Introduction

Education has been enhanced by the use of technologies as they have progressively appeared. Pen, paper, blackboards, and printed books are common in traditional classrooms. New technologies such as audiovisual devices and photocopiers have also helped to improve the learning environment. The advent of the Internet and the Information and Communication Technologies (ICT) is influencing learning in a fast qualitative way. Learning is based on information and communication; computers even supported the learning environment in the first instance and were seen as the panacea for self-directed learning and distance learning. The evolution of computing into a more ubiquitous and interactive application to learning involves an exponential change. Information-based tools such as diskettes and CD-ROMs, which led to Computer Based Instruction (CBI) and Computer-Assisted Learning (CAL), were enhanced with communication capabilities first in intranet-extranet systems and finally with the Internet. Thus, information and communication technologies integrated in the learning environment offer new possibilities and potential for learning. By analysing the technological, organizational, and pedagogical aspects of the evolution of the technologically enhanced learning environments into e-learning, we present an innovative Web-based writing environment for learning that provides learning not only with easy access to content or to learning objects but also with a socially interactive tool to internalize the ability to communicate through writing on the Web.

Definitions and Implications of E-Learning

Although a broad definition of e-learning refers to new online ways of learning (European Commission, 2002), it currently involves using electronic technologies to deliver learning content and facilitate interactive learning resources. Clark (2003) points out the interaction feature and claims that e-learning exploits interactive technologies and communication systems to improve the learning experience. The Learning and Teaching Support Network (LTSN) Generic Centre (LTSN, 2003) defines e-learning as "learning facilitated and supported through the use of information and communication technologies (ICT)," being essential that it is "pedagogically sound, learner-focussed and accessible by all." It includes digital content, it is experienced through a technology interface, and it is Internet-enabled (Zastroky, 2000). E-learning may be implemented in various ways, depending on the aspects on which it focuses: technological, organisational, or pedagogical aspects.

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