Chapter XLIX  
The Role and Integration of Digital Libraries in E-Learning  

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ABSTRACT  
In recent years, the development of information technologies and network distributions has brought about the creation of useful learning resources, one of which is the e-learning environment. With its promise of ease and ready accessibility, e-learning, a term generally used to refer to computer-aided learning, is fast becoming ubiquitous in educational institutes. In terms of enhancing the online learning experience, digital libraries have tremendous potential in offering resources that can support e-learning. In this chapter, the concepts of “e-learning” and “digital library” are examined. In addition, the role of digital libraries and their integration into the e-learning environment are also discussed.

INTRODUCTION  
Educators and learners have long relied on libraries as their main sources of learning resources and libraries have in turn played a supporting role to education by providing the infrastructure that promotes the creation, assimilation and leverage of knowledge (Wang & Hwang, 2004). This relationship has been described as symbiotic where “one cannot be separated from the other, and the existence of one is an impossibility without the other” (Islam, 1968, paragraph 1).

However, with the proliferation and development of the Internet and network distributions and the growth of e-learning in recent years, libraries are facing new challenges to the way they develop, manage and deliver their services and resources to their users (Sharifabadi, 2006). With personal computers becoming affordable and remote access to information through the Internet becoming ubiquitous, educators and learners can now choose the most appropriate information services that would best meet their needs. In so doing, they may bypass the library
altogether (Joint, 2006; Kibirige & DePalo, 2001), in favour of more readily accessible online information services. To address this problem, as well as to harness the potentialities of the burgeoning information technology, many libraries have gone electronic or partially electronic so as to position themselves to meet the new challenges (Wang & Hwang, 2004).

**BACKGROUND: E-LEARNING AND DIGITAL LIBRARY Defined**

The term e-learning, a term used widely in different educational contexts, can mean different things to different people. In fact, it has many manifestations, such as online learning, virtual education, computer-assisted learning, distance learning, etc. These different terminologies make developing a general definition for e-learning difficult. One underlying common point is the idea of the distance between the instructor and the learner, and the use of technology to access or deliver learning materials (Catherall, 2005; Sharifabadi, 2006).

However, our quest to develop a general definition for e-learning should not be confined to just looking at it in terms of delivering resources and materials via an electronic means. Due consideration to the learners and the learning process are also important. As such, Sharifabadi (2006) presents a definition that encompasses these aspects, defining e-learning as “the use of the internet to access materials to interact with the content, instructor, and other learners; and to obtain the support during the learning process in order to acquire knowledge, to construct personal meaning and to grow from the learning experience” (p. 390).

Just as the term “e-learning” has many manifestations, the term “digital library” has different variants, including electronic library, referring to a library with electronic records; virtual library, a library not bound by a physical location; hybrid library, a library that contains both hard copy and electronic formats. Often, these refer to the same thing (Kibirige & DePalo, 2001).

The Digital Library Federation (1998) defines digital libraries as:

organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities. (paragraph 1)

This “middle-man” view of the digital library is echoed by Fuchs, Muscogiuri, Niederée, and Hemmje (2004) who see it as supporting the information seeking needs of the users by mediating between the available content that has been preselected and structured, and the users.

**THE ROLE OF DIGITAL LIBRARIES IN E-LEARNING**

The digital library brings together its vast collection of printed resources, through library catalogues, electronic resources, such as electronic book collections and licensed journal databases, selected internet resources and electronic course reserves and tutorials, and makes it available to the user at the click of the mouse (Sharifabadi, 2006). With a personal computer and an Internet connection, the user can gain access to these resources anytime anywhere.

However, as Sharifabadi (2006) points out, it is not enough to see the digital library as simply a digitized collection of resources, but also as “an environment bringing together collections, services and people to support the full cycle of creation, dissemination, use and preservation of data, information and knowledge” (p. 392).