# Chapter 4
# Issues and Challenges of Integrating Digital Library Services in Blended Learning Environments:
## A Case Study of Open University Malaysia (OUM)

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## ABSTRACT

*Research into digital libraries has been carried out from two perspectives being libraries as contents and as services/organizations. The authors approach this topic from the service perspective. They argue that existing academic libraries in most parts of the world have augmented their services to include digital library services. This chapter discusses the development and components of a digital library and types of digital library services. It also discusses partial research findings on the integration of digital library services in blended learning environments at Open University Malaysia (OUM), focusing on issues and challenges encountered by librarians, which are: the need to provide both digital and physical resources, synchronous and asynchronous interaction with users, and engagement in continuous improvement. Information professionals at tertiary institutions are recommended to: keep abreast with the changing learning environments, maintain cooperation with users, and equip themselves with the new user-centric roles, knowledge, and skills that are required in this era of technological advancement.*

## INTRODUCTION

The concept of digital libraries has gained much attention over the last two decades from researchers and information professionals. There are many debates about what constitutes a digital library, with people perceiving it differently based on their expertise and practice. We view the digital library from a services perspective. We contend that existing academic libraries in most parts of the world have augmented digital library services to varying extents and this has changed the landscape of the library environment.

In this chapter, we discuss different perspectives and definitions of the digital library, its development and components as well as varying types of the digital library services. Based on qualitative case study research in a university in Malaysia, we draw attention to issues and challenges of integrating digital library services in blended learning environments as experienced by the librarians of this institution.

## POSITIONING THE DIGITAL LIBRARY

### An Introductory Historical Glimpse

The concept of libraries as systems for storing knowledge arose hundreds of years ago (Lerner, 1998). However, the concept of having a technology driven system (using machines) whereby humanity's knowledge could be stored, searched, and displayed was first coined by Bush (1945) who introduced a mechanized system based on microfilm technology which he called the "Memex." This concept was further crafted by Licklider (1965) whereby he envisaged a computer-based library called the "Procognitive System." This system, according to him, transmitted information "without transporting materials" and "not only present[ed] information to people but also process[ed] it for them." It is "a meld of library and computer" (p. 6).

Computer technology began to emerge in the 1970s and librarians were early adopters of computers. The development of computer technology during this time has impacted on almost all aspects of the library profession, including the ways in which librarians acquire, organize and manage library resources and the ways in which library services are delivered to customers. Librarians have been 'digital' for some time, but it was not until 1990s that the concept of digital libraries began to receive significant attention. The term 'digital library' was first used in print in 1988 in the report of the Corporation for National Research Initiatives (Kahn & Cerf, 1988).

### Digital Library Definitions

There are various synonymous terms including 'virtual library,' 'library without walls,' 'electronic library,' 'ubiquitous library,' 'hybrid library,' 'cyberlibrary,' 'cybrary,' and 'ebrary' as well as other related terms such as library 'gateway' and 'portal.' Various authors and researchers have attempted to define 'digital library' within their perspectives which has lead to a plethora of definitions because each perspective is shaped by the background, discipline and professional expertise and practice of the author. There are basically two main perspectives of the digital library found in the literature. In many instances, authors refer particularly to Borgman (1999, 2000) to explain these two perspectives (such as Johnson & Magusin, 2005; Rowlands & Bawden, 1999; Saracevic, 2000). Although Borgman (2007) also mentions a third perspective—digital libraries as websites and databases—this perspective somehow resembles the first one.

The first perspective is a technical focus, put forward primarily by digital library researchers from computer science, information system and computer engineering backgrounds. The emphasis is on digital libraries as contents collected on behalf of user communities. As sets of electronic resources and associated technical capabilities

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