Chapter 10
Digital Library:
An Emerging Paradigm Towards Open Access

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ABSTRACT

The perception of library is undergoing a drastic alteration due to the impact of information communication technologies. Gone are the days when libraries had only printed collections. The emerging technologies have compelled libraries to digitize information. The advent of the Internet has radically changed the form of library classification and cataloging. The present chapter aims to solicit the definition of digital library, meaning, and complete process for creating a well-designed digital library. It highlights the challenges encountered in the process of creating and developing a digital library. It also discusses major and minor issues that need to be given serious thought in the process of digitizing libraries.

INTRODUCTION

Digital library is a trinity of three elements; i.e. data, metadata, and processes. Data are library materials, metadata information about the library materials and processes are active functions preformed over library elements (Nurnberg, 2010).

Information and communication technologies have brought significant changes in all-round development of the society through transmission of information. Information is the fulcrum for power and wealth. It is crucial for economic and social development of the society too. In India, a number of digital library initiatives and digitization programmes have been initiated across the country, and most of these are government funded.

The emergence of Internet has added new dimensions to the concepts of Digital Libraries (DLs), Knowledge Management (KM), and archiving of indigenous culture and heritage materials. The Digital Libraries have emerged as a crucial component of global information infrastructure, adopting the latest Information and Communication Technology (ICT) to pro-

mote an organisational structure that encourages communication and resource sharing between the academician and scholars across the nations.

Digital libraries are characterized by equitable access, reduced barriers of distance, timeliness, shared resources, and content delivery. They can provide access to a large quantity of collections of primary and secondary documents. They can also support publicity and integration of new information. Besides this, digital libraries offer great opportunities for users to deposit and use information. They help and organise printed works in to a universal library and thus provide access to it from anywhere in the world.

DEFINITIONS AND MEANING

A digital library is an organized and focused collection of digital objects, including text, images, video, and audio, along with methods for access and retrieval, and for selection, creation, organization, maintenance, and sharing of the collection (Witten & Baindridge, 2006).

According to Bernie Hurley (2002), "Digital libraries are different from traditional library automation, in that they are designed to support the creation, maintenance, management, access to, and preservation of digital content."

Further, digital libraries can be defined as collection of information not only in books but in digital format also. These digital formats may vary from e-books, e-journals, e-publishing, reports, and on-line databases. Digital libraries promote the concept of free flow of information in a portable format and help in resources sharing among knowledge society. The major function of Digital Libraries is to facilitate systematic and efficient access to sharing of information on matters, considered important by users. A digital library is a managed collection of information with associated services, where the information is stored in digital formats and accessible over a network.

In summary, a Digital Library may be defined as "a collection of information in digital formats and accessible over a network/networks." From the definitions, the evolution of a digital library can be linked as: **Traditional Library→ ElectronicLibrary→ Digital Library→ Virtual Library→ Hybrid Library**.

BENEFITS OF DIGITAL LIBRARIES

Traditional Libraries are the fundamental part of society, but the services they provide are restricted. Information that was previously available only to the professional is now directly available to all only through DL.

It brings the library to the user. A digital library brings the information to the user's desk, either at work place or at home, making it easier to use and hence increasing its usages. With digital library on the desktop, a user is free from the compulsion to visit a library building.

Searching and browsing. Computing power can be used to find information. Paper documents are convenient to read, but finding information that is stored on paper can be difficult. In most aspects, computer systems are already better than manual methods for finding information. Computers are particularly useful for reference work that involves repeated leaps from one source of information to another.

Sharing information. Libraries and archives contain much information that is unique. DL place digital information on a network and make it available to everybody. Many digital libraries or electronic publications are maintained on a single site strategically around the world. This is a vast improvement over expensive physical duplication of little used material or the unique material that is inaccessible without traveling to the location where it is stored.

Keeping information current. Printing materials are awkward to update, since the version must

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