

Chapter 52

Digital Library and Its Requirements in the Global World

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ABSTRACT

This chapter introduces the basics of the digital library, including needs, benefits, and requirements, and briefly describes the digitization process. The role of library and information science professionals has now become a debatable one due to the advent of digital libraries and the Internet. The cloud computing and virtualization in digital culture is also discussed here. In this regard, the chapter covers cloud computing, including the characteristics, types, and how it works. The application of cloud computing in libraries is described with an example of the cloud in the academic library in Orissa. The advantages and disadvantages of cloud computing in libraries or in organizations are also covered here. The future prospects of the digital library using cloud computing technology is like an innovative application in libraries.

INTRODUCTION

Dr. S. R. Ranganathan was born for the development of the new subject of library science. But due to the impact of Information Technology, the subject has changed to Library and Information Science. He includes five laws designed to make the library as comfortable to the user as his or her home. The light of Ranganathan's five laws of library science is the motto "*Right information to the right user at the right time*" has the guru mantra of an information professional. The information world has expanded dramatically over the last few decades mainly due to the developments

in information technology. These developments have resulted in new methods of communication. The speed of communication is moving at a high rate due to latest telecommunication and network system. The introduction of computers and application of optical technology for library and information activities have made for important achievements in information handling. But the resource sharing concept changed the realistic scenario and timely demand of information resulted in distributed databases, and full text digital libraries came into existence. The digital library is the electronic library in which the access storage and dissemination of information is in the digitized

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form. The digital library is a logical extension of the networked environment and the development triggered thereof, and provides users with coherent access to a very rare, organized repository of information and knowledge. In a sense it is a global virtual library. The libraries networked thousand of electronic libraries/databases. The advent of digital libraries has made a noticeable impact on the role of library and information professionals as well as end users of information. In this chapter an attempt has been made to bring out certain points regarding challenges, which can be taken up as opportunities, posed by the digital library to library and information professionals. The digital libraries have several features in addition to computerization of traditional and routine work. These advancements have enabled information professionals to provide the quick and accurate digital information services to the users.

DIGITAL LIBRARY

The concept of digital library came in around 30 years ago. The digital library has different meanings in digital communities, such as electronic library, virtual library, library without wall, world library, Internet library, paperless library, and so forth. In all of the terms there is a little bit of difference, but here the concept of digital library will be pointed out. Digital library means a computerized network system where all the information are stored in electronic format, which can be accessed and transmitted through networks enabling retrieval of required information by a large number of users. Users can access their desired information using computer terminals at their work place.

Definition

In the information environment, a lot of authors give different views about the digital library. It is not possible to discuss all of them, but here

are a few definitions which are very simple for understanding the digital library.

In *Online Dictionary of Library and Information Science (ODLIS)*, “digital library” has been defined as “A library in which a significant proportion of the resources are available in machine-Readable format, as opposed to print or microform.”

Edward Fox has defined the digital library as “the new way of carrying out the functions of libraries encompassing new types of information resources, new approach to acquisition, new methods of storage and preservation, new approaches to classification and cataloguing, intensive use of electronic systems and networks and dramatic shifts in intellectual, organizational, and electronic process.”

Need

The need only forces a man to invent something; that’s why problems are often solved in the form of inventions. Today, the information explosion is the huge problem in front of librarians and librarians facing a problem to maintain their services, but digital technology may solve the problem and now libraries are in the position to provide an improved quality of library services.

In summary, the needs of the digital library are as follows:

- To minimize massive storage and space problem in libraries.
- To collect, store, organize, and access information in digital form.
- To encourage the economical and efficient delivery of information.
- To promote resource sharing.
- Accessible on the World Wide Web (WWW).
- To save library staff time by avoiding routine jobs.
- To fulfill the requirements of customers by providing better services.

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