

BLIS semester II  
(paper – 5)  
Reference Sources & Services

Topic – **Digital library**  
e-content

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## **Digital library**

Library is a place where the collection of information resources in print or in other forms that is organized and made accessible for reading or study is kept. International Organization for Standardization has defined library as irrespective of the title, any organized collection of printed books and periodicals or of any other graphic or audio-visual materials, and the services of a staff to provide and facilitate the use of such materials as are required to meet the informational, research, educational or recreational needs of its users.

Advances in Information Communication Technology (ICT), particularly the World Wide Web (WWW) have seen the evolution of the automated library, electronic library, digital library, virtual library, Hybrid library etc.

**A. Traditional Library:** Traditionally, libraries were collections of books, manuscripts, journals, and other sources of recorded information. The collection of the traditional libraries are mostly print media, manuscripts etc. and are not well organized. The documents are deteriorating at a rapid rate, the collected information is not easy to locate and procure. Such information does not reach the user of the libraries on time. It is difficult to get such

publications in the absence of personal influence and contacts. There are certain restricted publications containing highly informative materials but may not be easily available. Sometimes the information is published after many years. By the time it is published, the information becomes obsolete and then abandoned. Since it is not properly indexed or listed, the researcher is forced to go through long and tedious process to ascertain whether any material of his/her interest is available or not. Here the collections are not well organized and some reports are deteriorating at a rapid rate. Preserving them in their original form is difficult and it is not cost effective. Again the traditional libraries are confined itself within a physical boundary.

**B. Automated Library:** A library with machine-readable catalogue, computerized acquisition, circulation and OPAC are called as automated library. The holdings of such types of libraries are same as that of traditional libraries.

**C. Electronic Library:** When automated libraries go for LAN (Local Area Networking) and CD-ROM networking and started procuring E-journals and other similar kinds of publications then it is known as electronic library. The resources of the electronic libraries are in both print and electronic form. The electronic media are used for storage, retrieval and delivery of information.

**D. Digital Library:** It is a later stage of electronic library. In digital library high speed optical fiber are used for LAN and the access is over WAN and provide a wide range of Internet based services i.e. audio and video conferencing and like other. The majority of the holding of a digital library is in the computer readable form and also acts as a point of access to other online sources.

**E. Virtual Library:** It is a companion term to digital library, brought forth by the National Science Foundation. The concept of virtual library also emerged simultaneously with electronic library and digital library. This emergence is perhaps because all the information uses are at present through networked libraries at the desktop which is quite virtual (practical) without the physical existence of books on shelves. A virtual library can be simply defined as the internet-based digital library or a library without walls. The concept of virtual library is that any person who has a computer and connection to the library networks can access not only the resources of that library but also a variety of information available through national and international networks like internet and intranet without being physically present in the library.

**F. Hybrid Library:** It was designed to bring a range of technologies from different sources together in the context of a working library and to explore integrated systems and services in electronic and printed environments. It reflects the transitional state of the library, which today can neither be fully printed nor fully digital.

**Digital libraries** are also referred to as electronic libraries, virtual libraries, systems, libraries without walls or hybrid libraries. In general, the phrase "digital libraries" is not well defined in the literature and there is a lack of consensus of what constitutes a digital library.

A digital library is a collection of documents in organized electronic form, available on the Internet or on CD-ROM (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos.

On the Internet, the use of a digital library is enhanced by a broadband connection such as cable modem or DSL. Dial-up connections can be used to access plain-text documents and some documents containing images, but for complex files and those with animated video content, a downstream data speed of at least several hundred kilobits per second ( Kbps ) can make the user's experience less tedious, as well as more informative. Internet-based digital libraries can be updated on a daily basis. This is one of the greatest assets of this emerging technology.

On CD-ROM, the amount of data is limited to several hundred megabytes ( MB ) per disk, but access is generally much faster than on an Internet connection. Several CD-ROMs can be combined in a set, and because the disks are small, a large library can be accommodated in a reasonable physical space. The main limitation of CD-ROM is the fact that updating cannot be done as frequently as on the Internet. In addition, producing and distributing CD-ROMs involves overhead costs that are largely nonexistent in Internet-based libraries.

Some institutions have begun the task of converting classic books to electronic format for distribution on the Internet. Some files can be viewed directly in HTML format; others can be downloaded in PDF format and printed. Some publishers keep electronic files of books and produce them one unit at a time in printed and bound form on demand.

Electronic distribution of intellectual and artistic property has authors, agents, and publishers concerned about the possibility of copyright infringement. It is much easier to copy a CD-ROM, or to download an electronic book and make unauthorized copies of it, than it is to reproduce bound volumes and distribute them illegitimately. Fundamental changes in copyright law - and/or

changes in the way in which the laws are enforced - are likely to occur as digital libraries expand and their use becomes more widespread.

### **Features of digital libraries**

- **No physical boundary.** The user of a digital library need not to go to the library physically; people from all over the world can gain access to the same information, as long as an Internet connection is available.
- **Round the clock availability** A major advantage of digital libraries is that people can gain access 24/7 to the information.
- **Multiple access.** The same resources can be used simultaneously by a number of institutions and patrons. This may not be the case for copyrighted material: a library may have a license for "lending out" only one copy at a time; this is achieved with a system of digital rights management where a resource can become inaccessible after expiration of the lending period or after the lender chooses to make it inaccessible (equivalent to returning the resource).
- **Information retrieval.** The user is able to use any search term (word, phrase, title, name, subject) to search the entire collection. Digital libraries can provide very user-friendly interfaces, giving click able access to its resources.
- **Preservation and conservation.** Digitization is not a long-term preservation solution for physical collections, but does succeed in providing access copies for materials that would otherwise fall to degradation from repeated use. Digitized collections and

born-digital objects pose many preservation and conservation concerns that analog materials do not. Please see the following "Problems" section of this page for examples.

- **Space.** Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain them and media storage technologies are more affordable than ever before.
  
- **Added value.** Certain characteristics of objects, primarily the quality of images, may be improved. Digitization can enhance legibility and remove visible flaws such as stains and discoloration.
  
- **Easily accessible.**