

Digital Library: Pros and Cons with Future Aspects

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Introduction

A digital library is a library in which a significant proportion of the resources are available in machine-readable formats as print or microform, accessible by means of computers. The digital content may be locally held or accessed remotely via computer networks. In libraries, the process of digitization began with the catalog, moved to periodical indexing and abstracting services then to periodicals and large reference works, and finally to book publishing. Some of the largest and most successful digital libraries are Project Gutenberg, Ibibio, and the Internet Archive.

Advantages

While traditional libraries are limited by storage, digital libraries have the potential to store much more information simply because digital information requires

very little physical space to contain it. As such, the cost of maintaining a digital library is much lower than that of a traditional library. A traditional library must spend large sums of money paying for staff, book maintenance, rent, and additional books. Digital libraries do away with these fees.

Digital libraries can immediately adopt innovations in technology providing users with improvements in electronics and audio book technology as well as presenting new forms of communication such as wikis and blogs.

- **No Physical Boundaries:** The user of digital libraries need not go to the library physically. It saves the time of users and also fulfills the fourth law of library science.
- **Multiple Access:** The same resources can be used at the same time by a number of users.
- **Accessibility of resources at any time:** -A major advantage of digital libraries is that people from all over the world can gain access to information at any time, as long as the Internet connection is available.
- **Structured Approach:** A digital library provides access to much richer content in a more structured manner that is we can easily move from the catalog to a particular book, then to a particular chapter, and so on.
- **Information Retrieval:** There is flexibility in the use of search terms that is, keywords. A digital library can provide very user-friendly interfaces, giving clickable access to its resources.
- **Preservation and Conservation:** An exact copy of the original can be made any number of times without any degradation in quality.
- **Space:** When the library has no space for extension digitization is the only solution.

- **Networking:** A particular digital library can provide the link to any other resources of other digital libraries very easily, thus seamlessly integrated resource sharing can be achieved.
- **Cost:** In theory, the cost of maintaining a digital library is lower than that of a traditional library. A Traditional library must spend large sums of money paying for staff, book maintenance, rent, and additional books. Although digital libraries do away with these fees, it has since been found that digital libraries can be no less expensive in their own way to operate. Digital libraries can incur large costs for the conversion of print materials into digital format for the technical skills of staff and for the costs of maintaining online access as servers bandwidth costs etc. The information in a digital library must often be migrated every few years to the latest digital library. This process can incur very large costs in hardware and skilled personnel.

Disadvantages

- **Copyright:** Digital libraries are hampered by copyright law because works cannot be shared over different periods of time in the manner of a traditional library. The content is in many cases, public domain or self-generated only. Some digital libraries, such as Project Gutenberg work to digitize out of copyright works and make them freely available to the public.
- **Digital Libraries cannot reproduce the environment of a traditional library.** Many people also find reading printed material to be easier than reading material on a computer screen, although this depends heavily on presentation as well as personal preferences.
- **Less useful:** Due to technological developments a

library can see some of its content become out of date and its data may become inaccessible.

- **High initial cost:** The infrastructure cost of a digital library, which includes the cost of hardware, software, and leasing communication circuits, is generally very high.
- **Bandwidth:** A digital library will require high bandwidth for the transfer of multimedia resources, but bandwidth is decreasing due to overuse.
- **Efficiency:** With a much larger volume of digital information, it is becoming increasingly difficult to find suitable material for a specific task is becoming increasingly difficult.
- **Environment:** The environment of a traditional library cannot be replicated by digital libraries. Reading printed material is also easier for many people than reading material on a computer screen.
- **Preservation:** As technology advances, a digital library's content and data may become out-of-date and inaccessible.
- **Access speed:** As more computers connect to the Internet, the speed of access gradually decreases.

Institutional Repositories

A digital repository is a collection of online resources. There are two primary types of digital repositories: institutional and disciplinary. Institutional repositories are collections of institution-specific resources. Many academic libraries are actively involved in building repositories of their institution's books, papers theses, and other works which can be digitized. Many of these repositories are made available to the academic community or the general public.

Institutional repositories are often referred to as digital libraries.

The Future

Large-scale digitization projects are underway at Google, the Million Book Project, MSN, and Yahoo! With continued improvements in book handling and presentation technologies such as optical character recognition and e-books, and many alternative depositories and business models, digital libraries are rapidly growing in popularity as demonstrated by the efforts of Google, Yahoo! and MSN. And just as libraries have ventured into audio and video collections, so have digital libraries such as the Internet Archive.

REFERENCES

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