

DIGITALIZATION OF LIBRARIES: ISSUES & CHALLENGES

VARSHA D. INGLE

Librarian

Shri Saraswati College of Social Work, Washim MS

ABSTRACT:

This has led to the creation and use of digital libraries, which offer several advantages over traditional libraries. Digital libraries can store vast amounts of information in a compact digital format, making it possible to access and distribute them easily without the need for physical storage space. Additionally, digital libraries offer faster access to information, and users can search and access data from anywhere and at any time. However, the implementation of digital libraries is not without challenges. One of the primary issues is the cost of digitizing and maintaining the materials, IT infrastructure, and software to support the library. In addition, the process of digitizing materials may require significant resources in terms of time, finances, and personnel. Furthermore, issues such as copyright and intellectual property rights have to be taken into consideration when digitizing the materials. It is important to ensure that the library materials have appropriate licenses and legal permissions to avoid copyright infringement. Preservation and security of digital materials is also a critical challenge. Digital materials are vulnerable to loss and damage due to technical issues such as system failures, hardware or software failures, virus, or cyber-attacks. Digital libraries also face challenges in providing adequate user support and training to ensure that users can access and navigate the library materials appropriately. Users need to be able to understand the search and retrieval systems and have the skills needed to navigate the library's interfaces and online content. In conclusion, digital libraries offer significant benefits and opportunities for information access and dissemination. However, they also face significant challenges, including cost, copyright and intellectual property issues, preservation and security of digital materials, and user support and training. While these challenges are not insurmountable, they require careful consideration and planning in the implementation of digital library services.

Key Words: Digital libraries, intellectual access. information and communication technology.

INTRODUCTION:

A library goes beyond being a mere collection of books as it provides added value to information resources by effectively organizing and making them accessible to the public. In addition, it caters to different groups of individuals, including frequent, occasional, and potential users. Unlike

museums, the primary attraction of a library is not the books themselves but rather the ideas pertaining to them, the mechanisms that facilitate accessibility, and the community of users. Given that both information resources and individuals take up space, libraries have developed structural frameworks of buildings, rooms, and movable spaces where materials and people are interested.

The library spaces are an embodiment of the concept of a place. Nevertheless, a place is more than just a physical space, similar to how a home is more than a mere house. Functions and communities define places, just like how they define libraries. In essence, places are not limited to the physical realm but also comprise of ideas and states of being. This concept closely relates to what we define as libraries, which are places that blend intellectual space with physical space to connect individuals with ideas and with each other. Thus, comprehending these crucial qualities of libraries, including systematic access to information resources, the representation of concepts in those resources, and human stakeholders, extends to digital libraries as well. Library digitization is simply the transformation of physical library media, including books, periodicals, articles, and so on, to digital format represented in bits, the fundamental units of information in a computer system.

Flexibility is a major advantage of digital information, but it has presented challenges for libraries. Issues such as space constraints, rising costs of materials, reduced budgets, limited availability of multiple copies, and decreased retrieval efficiency have emerged. Digital libraries consist of digital versions of objects found in traditional libraries and are often thought of as electronic versions of these institutions. Larson defined digital libraries as global virtual libraries that encompass thousands of networked electronic libraries.

A networked electronic library is a collection of resources accessible to users anytime, anywhere. The American Digital Library Federation describes a digital library as an organization that provides resources, specialized staff, and services for the selection, interpretation, distribution, preservation, and access to a collection of digital works for a specific community. A digital library has services, information objects, organizational and preservation aspects, and supports electronic/digital availability. The objective of a digital library is to improve access, reduce costs, preserve fragile objects, keep up with technology, and share information. Digitization is necessary to provide convenient access to high-quality information, preservation, referencing, storage, and security measures. A digital library can be a standalone, federated or harvested digital library.

DIGITAL LIBRARIES CREATIONS:

One of the biggest challenges in creating a digital library will be building a digital collection. Digital imaging is a system involving hardware, software, image databases, and input subsystems, each with its own components.

Digital library equipment includes scanners, computers, and various core and peripheral systems such as data storage, image capture and editing software, network data transfer, and display/printing technology. Some important things that must be considered in the development of a digital library are: Digital Collections There are three ways to build a digital collection:

- Digitization, converting paper and other media in existing collections to digital form
- Acquisition of original digital works created by publishers and scholars. Example items would be electronic books, journals, and datasets.
- Access external materials not hosted internally by providing pointers to websites, other library collections, or publisher servers. Access to external digital collections - Digital Library, Elsevier, ACM etc. provide online websites. Through online access, institutions can gain access to digital collections provided by external sources such as library resources and electronic journals. Access to digital information available on the World Wide Web is one of the most important services on the Internet. www.edoc.com, mel.library.mi.us, www.inflibnet.ac.in etc. are important portal sites or gateways that provide access to electronic resources. In this case, we can say that the digital library can provide access to electronic resources through the library's homepage.
- Converting Print to Digital Format - Scanning and using an OCR program and re-opening data are two important ways to convert print to digital resources. Some of the technical requirements for digital image processing include hardware (computers, scanners, input/output devices), software (image capture, data compression/decompression), networking (to transfer data to share resources), and display technology.

All the above components are the machines and tools required for digitization. Witten and David (2003) define digitization as the process of taking traditional library materials in the form of books and paper and converting them into electronic forms that can be stored and managed on a computer. Ding and Choo Ming (2000) have a comprehensive work on the benefits of digitization. They continued:

- Digitization means no new buildings are required; information sharing can be enhanced and redundancy of collections reduced.
- Digitization leads to the development of the Internet in digitalized-based libraries. As the Internet is now the preferred form of publication and dissemination.
- Digital materials can be sorted, transmitted, and retrieved easily and quickly.
- Access to electronic information is cheaper than its print counterpart when all the files are stored in an electronic warehouse with compatible facilities and equipment.
- Digital texts can be linked, thus made interactive; besides, it enhances the retrieval of more information.

In light of the following advantages, it is natural today to find more information being digitized and uploaded into the Internet or Compact-Disc Read Only Memory (CD-ROM) in order to be made correspondingly accessible globally.

There are three main needs for digitization; two or all three of them may apply to your digital library project.

- To preserve the Documents: That is to allow people to read older or unique documents without damage to the originals.
- To make the documents more accessible: This is to serve the existing users better; e.g. to allow the users to search the full text of the documents or to serve more users than envisaged in remote locations, for example, more than one person at a time.
- To reuse the documents. It means to convert documents into different formats; for example to use images in a slideshow and to adopt the content for a different purpose.

Digitizing documents can take a lot of time, effort, and money. Smith (2001), narrated the following reasons that should be considered before going into digitization.

CHALLENGES OF DIGITAL LIBRARIES:

The Internet is an essential part of digital library without internet facility and connectivity digital library may not be online. If there is a network, any user can access the resource at any time. In this case, the Internet can be called a digital library. The myth of a single digital library or a one-stop shop for digital library collections. Many users can access digital library resources simultaneously in a networked environment. Digital Libraries Provide Fairer Access Anywhere, Anytime In a networked environment, digital libraries provide fairer access to provide the right

information to the right users at the right time. A digital library will be cheaper than a print library. Digital Library Challenges Creating "effective" digital libraries poses serious challenges to existing and future technologies. Integrating digital media into traditional collections will not be as straightforward as previous new media, such as audio-video cassettes, due to the unique nature of digital data, which is rarely identified by several users at the same time, easily copied, and accessed remotely. Some specific challenges include sourcing, digital collection development, digital library management, copyright, licensing, etc. The Library of Congress has identified various challenges to building an effective digital library, which are broadly categorized as follows. Build a fountain.

- a. Develop improved technology for digitizing analog materials
- b. Design search and retrieval tools that compensate for abbreviated or incomplete cataloging or descriptive information
- c. Design tools that facilitate the enhancement of cataloging or descriptive information by incorporating the contributions of users.

Interoperability Create protocols and standards to facilitate the construction of distributed digital libraries. Intellectual property addresses the legal issues associated with accessing, copying, and disseminating physical and digital materials. Effective access a. Integrate access to digital and physical materials. Develop approaches that can present heterogeneous resources in a coherent manner. Make the National Digital Library useful to different user communities and for different purposes. Provide more efficient and flexible tools to transform digital content to meet the needs of end users. Resource retention.

DIGITAL LIBRARY ADVANTAGES AND DISADVANTAGES :

Advantages The advantages of digital libraries as a means of easy and quick access to books, archives, and various images are now widely recognized by commercial interests and public organizations. Traditional libraries are limited to storage; digital library has the potential to hold more data because digital data requires less physical space to store it. As such, the cost of maintaining a digital library can be lower than that of a traditional library. The main benefit of digital transformation is a huge increase in user access. It also increases access for people who may not be traditional library patrons due to geographic location or organizational affiliation. Some of the advantages are as follows:

No physical boundary: The user of a digital library need not go to the library physically; people from worldwide 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, i.e., users can access the information anytime provided the proper network connectivity.

Multiple accesses: The same resources can be used simultaneously by a number of institutions and patrons.

Information retrieval: The user is able to use any search term (word, phrase, title, name, and subject) to search the entire collection. Digital libraries can provide very user-friendly interfaces, giving clickable access to their resources properly.

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. Preservation and conservation of data in the digital library are important issues.

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.

Disadvantages

There are some disadvantages of digital libraries also, which are as follows:

- User authentication for access to collections
- Digital preservation
- Equity of access
- Interface design
- Interoperability between systems and software
- Information organization
- Training and development

CONCLUSION:

Digitization has opened up new audiences and services to libraries and needs to be incorporated into the plans and policies of every institution to maximize its effectiveness. Digitization is a complex process with many crucial dependencies between different phases over time. Using a holistic life cycle approach for digitization initiatives will help develop sustainable and successful projects. Libraries around the world have been working on this daunting set of challenges for several years. A library/information center must overcome barriers and look ahead to improve information services for the user community by successfully adopting digital technologies – the needs of today and keeping pace with the world. It seems that the days may not be far when the whole world will have digital libraries connecting all the libraries to meet the academic and research needs in a short period of time. However, before digital libraries take over the library and information network, the country's archive laws need to be changed to meet the current challenges of data protection under copyright and prevention of data corruption.

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