

Digitization of Library: A Brief Introduction

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Abstract

Information Technology is moving so fast that is making difficult to cope with changes & challenges. Information activities have undergone rapid transformation from conventional methods, consequent upon introduction of new technologies. To meet the tremendous information explosion and high demand of information, libraries are now taking the advantage of digital technology. Digital Libraries are being created today for diverse communities and in different fields e.g. education, science, culture, development, health, governance and so on. With the availability of several free digital Library software packages at the recent time, the creation and sharing of information through the digital library collections has become an attractive and feasible proposition for library and information professionals around the world Library automation has helped to provide easy access to collections through the use of computerized library catalogue such as On-line Public Access Catalogue (OPAC). Digital libraries differ significantly from the traditional libraries because they allow users to gain an on-line access to and work with the electronic versions of full text documents and their associated images. Many digital libraries also provide an access to other multi-media content like audio and video.

Keywords : Information Technology, Digitization, Library Software, OPAC, Automation

Introduction

A digital library is a collection of digital documents or objects. This definition is the dominant perception of many people of today. A digital library as an organized and focused collection of digital objects, including text, images, video and audio, with the methods of access and retrieval and for the selection, creation, organization, maintenance and sharing of collection. “Digital Libraries are organization that provide the resources, including the specialized staff to select structure, offer intellectual access to interpret, distribute, preserve the integrity of and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.” (DLF2001)

WHAT IS DIGITIZATION ?

Digitization started with the introduction of computers in library activities in 1980s in India by it was limited to creation of bibliographic database and housekeeping operations. This conversion of bibliographic catalogue record into digital format was the initial stage but now it has been broadened by implementing it to conversion of full text, graphics, sound, video records etc.

“Digitization refers to the process of translating a piece of information such as book, sound recording, picture or video into bits. Bits are the fundamental units of information in computer systems. Turning information into these binary digits is called digitization” Digitization is one of the hot topics in librarianship today. To build a ‘digital library’ requires that the content of a collection be available electronically. The fustian of the information highway has provided the impetus to convert many existing paper-based (of sound, vides) collection into new digital media. The assumptions that digital collections will be more accessible to a broader range of users, presumably through networking techniques and new efficiencies are to be gained in resource sharing and for preservation. Recent developments in manufacturing raised the importance of digital elements as well as fully automated processes on a strategy, planning and shop floor level. Although the number of publications in this field increases, many scholar and practitioners lack a differentiated use of the related terms of “digitization”, “digitalization” and “automation”. In the previous couple of years, systems for digitizing books at fast and similarly minimal effort have enhanced extensive with the outcome that it is presently conceivable to digitize a great many books

for every year. Google book-examining venture is likewise working with libraries to offer digitize books pushing forward on the digitize book domain.

WHY THE NEED OF DIGITIZATION ?

Digitization improves access to library resources. By digitizing library collections, information will be accessible to all instead of a group of researchers. Digital projects allow users to search for collections rapidly and comprehensive from anywhere at any time. Digitization makes the invisible to be visible. Several users can access the same material the same time without hindrance. It also removes the problem of distance, as users do not have to travel to libraries that possess the hard copies of library materials before they can access and use such materials. A digital library can be made to serve a region. Making resources more accessible with online research in distance.

- Better access and ease of use for community and beyond.
- Provide easier access to information.
- Better and wider access to information
- Preservation of information
- Space management
- Easy accessibility
- Cost benefit
- Digitization would allow us to extend access to fragile resources and to resources that are difficult to access.
- Most of our archival material is of a sensitive nature, including many personal documents and it is unlikely that much of this material would be made accessible to the general public through digitization. However, it is important to preserve the historical nature of this material, not only concerning the college but also dealing with Catholic school and university topics, and digitization would be one way to do this.
- Digitization current serves needs of access and outreach in areas of importance to the University. It also presents primary and secondary resources for scholarship from a wide variety of sources in an organized fashion to our community. Digital Preservation will

benefit our community in terms of curator ship and stewardship. The latter, especially, is a niche that we are uniquely qualified to fill.

TYPES OF DIGITAL RESOURCES:

There are different types of digital resources that are given below:

E-books: An electronic book, also known as an e-book or Book, is a book publication made available in digital form, consisting of text, images, of both, readable on the flat-panel display of computers or other electronic devices. Although sometimes defined a “an electronic version of a printed book some e-books exist without a printed equivalent. E-books can be read on dedicated e-reader devices, but also on any computer device that features a controllable viewing screen, including desktop computers, laptops, tablets and smart phones.

E-Lecture: An online lecture is an educational lecture designed to be posted online. Lectures are recorded to video, audio or both then uploaded and made viewable on a designated site. Students may goto a certain designated site to view the lecture online at a time which is convenient for them.

E-Magazines: An online magazine is a magazine published on the Internet, through bulletin board systems and other forms of public computer networks. One of the first magazines to convert from a print magazine format to being online only was the computer magazine Datamation. A digital magazine involves the distribution of a magazine content by electronic means; it may be a replica (of the printable version) or a non-replica. A digital magazine should not be, in fact, a replica of the print magazine in PDF, as was common practice in recent years. Thus, the most common types of digital magazines are:

- Digital-only magazines;
- iPad, Android or iPhone apps of magazine editions;
- PDF replicas of print editions;
- Applications for Kindle or Sony eReader.

E-Articles: Electronic articles are articles in scholarly journals or magazines that can be accessed via electronic transmission. They are a specialized form of electronic document, with a specialized content, purpose, format, metadata, and availability they consist of individual articles from scholarly journals or magazines (and now sometimes popular magazines), they have the purpose of providing material for academic research and study, they are formatted approximately like printed journal articles, the metadata is entered into specialized databases, such as the Directory of Open Access Journals as well as the databases for the discipline, and they are predominantly available through academic libraries and special libraries, generally at a fixed charge. Electronic articles can be found in online-only journals.

E-Journals: Electronic journals, also known as e-journals, and electronic serials, are scholarly journals or intellectual magazines that can be accessed via electronic transmission. An e-journal closely resembles a print journal in structure: there is a table of contents which lists the articles, and many electronic journals still use a volume/issue model, although some titles now published on a continuous basis. Online journal articles are a specialized form of electronic document: they have the purpose of providing material for academic research and study, and they are formatted approximately like journal articles in traditional printed journals. Often a journal article will be available for download in two formats as a PDF and in HTML format, although other electronic file types are often supported for supplementary material. Articles are indexed in bibliographic databases, as well as by search engines.

E-Thesis & Dissertation: An ETD or Electronic Thesis & Dissertation is similar to traditional theses but more appropriate for worldwide access and retrieval with the help of computer, laptop, tablet, mobile phone etc. Depending on the nature of accessibility provided an ETD can be accessed anytime, anywhere. It helps in increasing the visibility of the individual researcher as well as the institution involved in the research work. The Networked Digital Library of theses & Dissertation (NDLTD) which is an international organization promotes the adoption, theses and dissertations in various subjects and languages accessible through its union catalogue. Since its inception, ETD activities have always been associated with enhancing the quality of education. Shodhganga is the only one Indian repository where all the thesis & dissertation are submitted and kept in electronic version.

HARDWARE REQUIRED FOR DIGITIZATION

A powerful computer is the basis for any digitization. A dedicated computer should be used specifically for the imaging. The basis equipment for digitization is given bellow:

SOFTWARE REQUIRED FOR DIGITIZATION

For digitization at least three types of software are needed. The first is the scanning software i.e. the scanner the second is the image editing software normally applied to the image after it has been scanned. Thirdly the batch-processing software it is useful for the generation of the thumbnails and access images converting from one file format to another or compressing files.

ADVANTAGES OF DIGITAIZATION

Access: broader and enhanced, to a wider community.

- Supporting preservation.
- Collections development
- Institutional and strategic benefits.
- Research and education.
- Space
- Round the clock accessibility
- Computerized conservation
- Metadata creation

DISADVANTAGES OF DIGITIZATION

1. **Copyright:** Digitization violates the copy right law as the thought content of one author can be freely transfer by other without his acknowledgement. So One difficulty to overcome for digital libraries is the way to distribute information. How does a digital library distribute information at will while protecting the copyright of the author?
2. **Initial Cost is High:** The infrastructure cost of digital library i.e. the cost of hardware, software; leasing communication circuit is generally very high.

3. **Band Width:** Digital library will need high band for transfer of multimedia resources but the band width is decreasing day by day to its over utilization.
4. **Efficiency:** With the much larger volume of digital information, finding the right material for a specific task becomes increasingly difficult.
5. **Environment:** 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.
6. **Preservation:** Due to technological developments, a digital library can rapidly become out-of-date and its data may become inaccessible.

CHALLENGES OF DIGITIZATION

Selecting Documents: In an age of information explosion, librarians are in an embarrassment about, what type of records to be digitized or what type of not to digitized.

Copyrights: users are always demanding back issues of journals and rare historical archives for which the library has no copyright. This issues regarding copyright rise serious matters before librarians in digitization.

Longevity of Storage Media: Many of the storage media praised by people all over the world may become less useful only long after they become unreadable. The changes and improvements of storage medium put serious questions about the future of digitized materials and their alteration.

Funding: Digital projects are expensive. Digitization of archival library automation requires enormous funding due to frequent hardware and software upgrades, and increasing cost of subscription, it is not an easy to upgrade digital material.

Conclusion

Digitization is an important aspect for academic libraries in 21st century. As user demand grows for the digitization of cultural research material; the academic library community will need to pay close and careful attention to the changing information needs of scholars and students of

the humanities. Digitization is an essential task in modern day libraries. If a library is to live up to current challenges, it has to go digital, that is, provide online services. The major problem of digitization is to be found lack of financial support from the parent organization. Unawareness about its important in the academic environment, lack of facilities including manpower, technical skills hardware, software and infrastructure facility to show poor digitization. Libraries need to build digital information sources and services using the modern technology to satisfy the users demand and laws of Library Science.

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