

**VIVID ON EMERGING TRENDS AND CHARACTERISTIC IN DIGITAL LIBRARY****¹Dr. Thirumal, K., ²*Dr. Rangasamy, V. and ³Dr. Uma Devi, L.N.**¹Librarian, Jawaharlal Nehru College for Women, Tamil Nadu, India²Librarian, IFET College of Engineering, Tamil Nadu, India³Assist. Prof. and Librarian, Raja Muthaih Medical College, Annamalai University, Tamilnadu, India**Received 17th August 2022; Accepted 10th September 2022; Published online 31st October 2022**

Abstract

The most cutting-edge information systems support selective information dissemination, filtering, hypertext, distributed database administration, digital document preservation, and distributed database administration. Websites devoted to the construction and upkeep of electronic book collections and other types of content are known as "digital libraries," and they do so without asking that users pay for the books and other content they wish to access and read. Part of what makes digital libraries so exciting is the involvement of a sizable number of intermediate institutions in the creation and preservation of these collections.

Keywords: Digital Library, Web Technology, E-Resources, Search Technique, Users.

INTRODUCTION

Information storage and access methods have undergone a significant transformation as a result of the digital age. It is distinguished by three key characteristics: three currencies and simple information access. The idea of libraries has changed as well as its collection and services as a result. In order to characterise libraries in the modern day, several new terminology are emerging, such as "digital libraries," "library without walls," and "virtual libraries." The word "digital library" has replaced the earlier term "electronic library," which was used for the past 20 years to refer to the library without books that uses computers and communications to give users access to the information they need. The common definition of a digital library is an electronic version of a library with digital storage that enables direct communication to receive materials and copying from a master copy. It eliminates the physical barrier between resources by fusing technological and informational resources to enable remote access. According to Wilensky, "the digital library" will consist of a number of distributed information services that producers will make available and users will be able to access via automated agents. Initially, dial-up access to online public access catalogues was the primary emphasis of the creation of digital libraries (OPAC). However, the phrase conjures up diverse associations for certain people. It can simply refer to the computerization of the current library system to some people. For those with a background in library science, this means approaching tasks in new ways, using new kinds of information resources, new methods of acquisition, storage, and preservation, new methods of classification and cataloguing, and new methods of patron interaction that rely more heavily on electronic systems and networks. Currently, in addition to their own online collection and services, the majority of libraries in industrialised nations have their own homepages that link to local information, electronic databases, bibliographic information, and full text.

Future digital libraries won't exist in a standalone format. The rapid expansion of networked connection. A shared environment is created by the integrated digital library that links personal collections, collections from traditional libraries, and sizable databases dispersed throughout the globe. The phrase "virtual library" has gained popularity recently. It's used to characterise libraries that offer anytime, anywhere access to digital content through a number of networks, notably the internet and the W WW. The individual user, or his or her work station, is by definition in the core of the virtual library. Thus, in the context of today, a virtual library represents the fusion of several ideas, including electronic browsers, online literature databases, and end-user empowerment. According to Toren and Czech, libraries will eventually become screen icons and their physical locations will serve as book warehouses. Such a scenario requires thoughtful consideration of the potential consequences in the future.

Definition

When the term "digital library" was searched for on the internet by Google, the most popular commercial search engine, Wikipedia and other sources defined it as a "library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers." A "virtual library" can be defined in a variety of ways. Many times, words like "digital library" and "digital library" are used interchangeably. The following factors have been acknowledged as fitting naturally within those definitions: A "Collection of digital objects (text, video, and audio) with methods for access and retrieval, as well as for selection, organization, and maintenance" is referred to as a "digital library." The library is a prepared space that houses collections virtual objects that have been categorized and may have forgotten their original purposes. Therefore, a virtual library is a casual collection of statistics that are accessible over a network and preserved in virtual codec's, along with related services. The virtual library differs from a digitized series with statistics control tools not always. The concept of

*Corresponding Author: **Dr. Rangasamy, V.**
Librarian, IFET College of Engineering, Tamil Nadu, India

the Digital Library (DL) as a division of the library was made possible by the Internet's rapid development in the 1990s and the library and information community's acceptance of it. Digital library research also blossomed with the Internet's introduction in the mid-1990s. Related to the requirement for open and simple access to information. It is also a series of activities that brings together collections, gifts, and people who support the entire cycle of producing, disseminating, using, and presenting information. The concept of virtual libraries (DLs), as a division of libraries, was made possible by the rapid development of the internet in the 1990s and its incorporation through the use of the library and information network. Research on virtual libraries grew in popularity in the middle of the 1990s with the advent of the Internet and the desire to make information open and easily accessible. Whether it is actual or virtual, a branch has specific characteristics. A digital branch is a library branch that will be accessible online digitally. The fact that digital branches have real people, real buildings, real collections, and a real community around them gives them several advantages over regular library websites. Informational resources and services of all kinds are provided by libraries and information centres. Services and informational material are always evolving. The World Wide Web In the libraries of the contemporary digital world, the internet has acquired a new dimension. Librarians must be equipped with the newest technologies to keep up with cyberspace.

Digital networks and communications infrastructure in this new library offer a platform for individuals and groups to strategize, connect, communicate, work together, and search for information on a global scale. The platform contains a vast variety of digitally deliverable products, including databases, news and information, books, periodicals, TV and radio shows, movies, electronic games, music CDs, and software, that may be given anytime, anywhere. It is comprised. Complementing, enhancing, and even replacing traditional libraries are digital ones. Digital libraries, as opposed to traditional ones, offer services that are more effective and high-quality by gathering, organising, storing, disseminating, and storing data. In addition to improving information distribution and retrieval, digital libraries assist preservation.

A result, language technology is crucial to managing digital content. Of course, none of this is shocking. Today's digital libraries make effective use of what we already know about searching enormous collections, and methods like machine-assisted indexing are being used more frequently as we try to attain ever-larger holdings. But a new era is just on the corner, one in which our machines will pick up skills from what we do and use them to handle digital stuff on a much larger scale than we could ever hope to. The gathering, arranging, and sharing of information resources are the core duties of all traditional libraries. A library is traditionally thought of as a location where books, manuscripts, musical scores, and other works of literature and art are maintained for use only not for sale. In essence, it is a facility where individuals can use the resources and is focused on collecting and custody. A digital library, on the other hand, is a collection of digital computing, storage, and communication devices together with the content and software required to duplicate, mimic, and extend the services offered by traditional libraries. A digital library, then, is a computer-based system for collecting, organising, storing, searching for, and disseminating digital content for end users. It is more than just a compilation of digital content; it also has

a web interface and, in certain cases, a virtual world and civilization. It takes up less room, the data can be made accessible to everyone, anywhere, through communication networks, and it speeds up searches. The resources of numerous such collections are connected to the digital since it is not a single entity. The following is a list of some of the qualities mentioned in the definition of a digital library: a library that catered to a particular group of populations.

- A collection of various organizations.
- A library that combines access and learning.
- A library that offers quick and effective access through a variety of access methods.

A library with a big, long-lasting collection that is well-maintained, has a variety of formats, and includes items that might not otherwise be available. In addition to serving specific communities or constituencies, like traditional libraries currently do, digital libraries will also include digital materials that exist outside of their physical and administrative boundaries. However, these communities may be dispersed widely across the network, and for digital libraries to function effectively, both librarians' and computer scientists' skills will be necessary.

Definition of digital library involves three key components, which constitute the theoretical framework underlying digital libraries, namely:

- People.
- Information resources.
- Technology.

Distributed Models

Libraries are more frequently using open and collaborative models to generate library content and services, and they are adopting distributed models for information access and management. The inclusion of open models and distributed technology has the potential to increase the creation, sharing, and use of knowledge by libraries. When referring to libraries, the production and sharing of knowledge in ways that more fully reflect their contributions and tie them with the activities of other stakeholders. The library joins forces with the academy while retaining its own unique identity. Open models and Paradigms The concept of collaborative software creation with developers sharing the source code, or the "Open Source movement," represents a fundamental change away from private software and systems. Cyber law experts contend that the foundation of an open society is the formation of a "commons," where the free interchange of ideas and collaboration flourish. In the context of publishing, themes of openness and cooperative interaction have also evolved, notably with regard to the connection between authors and business publishers. There is evidence of a change from publication as a product to publication as a process in these open movements. Content becomes more dynamic and the "versions" become more cumulative when it is made available in a form that may be improved or augmented over time. Few predicted that this change would pose the greatest threat to current copyright laws. Organizations whose current function it is to handle publications in both traditional and digital forms will be significantly impacted by such a change. The information management tasks performed by the library are probably going to change again as this transition progresses.

Methods of communication that are more open and widely disseminated. The library begins to collaborate as a method to accomplish its primary goals of developing collections, preserving access, and offering services in this second stage of the evolution of library responsibilities. Models of central control give way to new systems of coordination and collaboration when responsibility for content and services is disseminated more widely. In the end, scholarly communication procedures take on equal importance to traditional publication outcomes.

Digital collections Vs Digital library

Large-scale digital collection creation has made significant progress during the past ten years. It is crucial to differentiate between digital collections and digital libraries. What precisely falls under the notion of a digital library is unclear. Digital libraries are the technologies that "make digital collections come alive, make it functionally accessible, useful for performing work, and connect them with communities," whereas digital collections are "raw content." Only when the collections are accompanied by a useful content and interpretation matrix do they gain value. We should therefore make sure to create digital libraries rather than merely digital collections. To create synergy, care should be taken to surround collections with the right metadata that provides context and interpretation. The time has come to "create vast, all-encompassing digital collections that scholars, students, and other researchers can utilize more easily than they use the book-based collections," according to the report. Future digital libraries will likely have three main traits. All users can easily access this extensive collection of resources that are crucial for learning, teaching, and scholarship. It is also professionally managed. Digital libraries are a significant field of computer science application because to the information explosion, large bandwidth data networks, and promise of Internet-based technologies, such as the Web.

Principles of Digital Library

A digital library requires a lot of money and resources to build. Before starting such a project, it's crucial to take into account a few fundamental concepts that underpin the creation, use, and upkeep of any digital library. These guidelines apply to digital libraries where the objects have always existed in digital form ("born digitally"), conversion projects where real things are converted to digital form, as well as "mixed" digital libraries where the objects may be of both types. Although the concepts are, in a way, self-evident, it is simple to overlook them when pressed into creating a system with little time or money. The purpose of a digital library is to provide coherent organization and convenient access to typically large amounts of digital information. The following 10 principles are helps to design and continued development of any digital library system. They are:

- Know your content.
- Involve the right people.
- Design usable systems.
- Ensure open access.
- Be aware of data rights.
- Automate whenever possible.
- Adopt and adhere to standards.
- Ensure quality.

- Be concerned about persistence.

Advantages

1. Immediate access to resources.
2. Information updated immediately.
3. Support different learning styles.
4. Accessible for the disabled.
5. Reduction of physical storage of information
6. Information retrieval.
7. Many users can view the information at the same time.
8. Facilitate to view the information other non library location and increased cost effectiveness.

Disadvantages

1. Restricted by copyright law.
2. Requires connectivity.
3. Skilled professionals are required.
4. Increased number of resources challenges student selection.

Functions of Digital Library

Digital libraries (DL) are a concept made possible by the Internet's rapid expansion in the 1990s and the information community's acceptance of the Internet. Its capabilities can be summed up as the gathering, storing, and processing of massive volumes of data and knowledge. Similar to digitalization and the Internet, it is a systematic effort that offers easy-to-use and incredibly effective search and research services. For this function, a digital library system is intended to provide at the very least: a service that manages and stores digital items. A search engine that makes it easier to get information. a means of interacting with digital items by end users. Modernization of libraries has advanced to a new degree since the advent of DL. Starting with reducing the time and space restrictions of traditional physical store libraries, the digital library promises new societal benefits. Digital libraries exist on interconnected data storage and computing systems that are accessible to anybody, as opposed to physical libraries that are housed in locations only accessible to those who enter them. When digital libraries reach their full potential, any citizen will be able to access a sizable amount of all human knowledge from any location. The Internet offers a sneak peek of the possibilities from an access point of view.

Role of Digital Libraries

1. Support human development: Since digital libraries are more affordable and require less upkeep than paper books, they help to support human development as more information resources are made available on CD and DVD in rural and remote areas of developing nations. For instance, UN publications on agriculture, the environment, medicine, and health are available in Uganda's rural areas.
2. Expanding the boundaries of science: By using archive digital libraries that were created with the help of scientists, scientific research is made much more visible, which results in an increase in research output. Illustration: Physics Archival Digital Library
3. Preserving traditional culture: Digital libraries conserve native culture in audio and visual formats, including tradition, language, narrative, and traditional music. Through these projects, endangered documents are now digitally accessible.

Future trends

Although the word "digital library" is frequently used in literature, a new phrase, "hybrid library," emerged during UK study on digital libraries. A hybrid library is one where printed and digital information sources coexist and are combined into an integrated information service that is accessible both locally and remotely (HyLife, 2002a).

Features of digital library

- No Physical Restrictions
- Multiple Access
- Easy-to-Use
- Conservation and Preservation
- No Limitation of Space
- Scope of Improvement
- More Than a Library
- Not Time-Bound

Conclusion

Since the field of digital libraries is still very young, it seems odd to be discussing their improvement already. The original digital libraries created by digitization efforts, or even virtual collections, are being improved in this fast-paced environment, nevertheless, as user expectations and technological capabilities allow. The objectives of librarianship are the gathering, organising, preserving, and sharing of information and knowledge. They are never-ending procedures that necessitate implementation adjustments as circumstances alter. The key to individual and societal economic success is viewed as being information access. High prices, discrepancies in exchange rates, constrictive licences, and "take it or leave it" services are some of the obstacles to access that both individuals and nations encounter (Friend, 2002). The code word for the virtual library is access, and it sounds so easy: all you have to do is click links to access information. The reality of virtual libraries and their users, however, is characterised by organisational, legal, and technical limitations.

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