

Digital Library: Processes, Services and Challenges

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ABSTRACT

Digital libraries are the next stage in the convergence of technology push, falling costs, and worldwide connectivity are the omens for the upcoming decade revolution. Innovations like digital libraries are still in their infancy in emerging nations. They do, however, have the potential to develop into fundamental information creation and management technologies in the future. This article's goal is to introduce readers to the fundamental ideas, procedures, and features of digital libraries while also discussing the possibilities and problems they present.

KEYWORDS: Digital Preservation, Challenges, Revolution, Digital Services.

1. INTRODUCTION

Everything must be advanced in the constantly changing and highly advanced technological environment of today. Every industry must embrace this type of environment and adopt newly emerging technology in order to survive. The same is true for libraries. A technologically sophisticated library meets all of the needs of its tech-savvy patrons. A digital library (DL) will improve the library's facilities while expanding its reach. There will be no restrictions on who can obtain the information in DL in terms of time, space, location, or racial discrimination. The cost of accessing the Digital Library from a distant location or another nation is very low.

A digital library can be accessed to get knowledge quickly, affordably, and simply. In today's dynamic and extremely advanced technological environment, everything must be advanced. To survive, every business must embrace this kind of environment and incorporate cutting-edge technology.

For libraries, the same holds true. A digitally advanced library caters to the requirements of its tech-savvy users. The amenities of the library will be enhanced while its scope is increased by a digital library (DL). There won't be any time, space, location, or racial discrimination limitations on who can access the material in DL. Accessing the Digital Library from a far-off place or another country is very inexpensive.

You can quickly, affordably, and easily obtain information by using a digital library.

2. DIGITAL LIBRARY

As stated the idea of a digital library is comparatively recent. The phrase "digital library" describes the collection's structure. Digital libraries give everyone access to digitized information by allowing users to interact successfully with data that is dispersed throughout the network.

A digital library is a specialised collection of digital objects, such as text, images, audio files, and videos that are stored in electronic media formats rather than print, microform, or other media. It also includes tools for classifying, archiving, and retrieving the files and media that make up the library collection.

Margaret Rouse: A digital library, unlike other forms of media such as print or microform, is a specialized form of library that encompasses a collection of digital assets. Such digital objects can be in the form of visual material, text, audio or video that are in electronic media forms. As it is a library, it also has features to organize, store and retrieve media or files that make up the collection. Content in a digital library may also be stored locally or accessed by means of networks when stored remotely.

3. OBJECTIVES OF THE STUDY

- ✓ Information sources can range from straightforward writing to multimedia that is accessible at one or more they might be accessible on various platforms, and they might have been made and/or organised differently.
- ✓ Information may originate from a variety of sources, including databases, local digital libraries, distant digital libraries, electronic periodicals, producers, and vendors.
- ✓ Digital resources are frequently a part of a broader collection that also includes print resources.
- ✓ The coupling of information with intricate metadata systems.
- ✓ Users can be found anywhere, and they can have very different natures, information requirements, etc.
- ✓ Information is frequently only given the right to view rather than being owned.
- ✓ The same material is available in numerous versions.

4. DIGITAL LIBRARY SERVICES

A broad range of services are offered by Digital Library Services to help library users organize their collections of materials or make them more accessible.

The Digital Libraries provide the following services.

- ✓ Catalogue databases
- ✓ current awareness bulletins
- ✓ externally purchased databases
- ✓ CD-ROM databases
- ✓ Remote information services
- ✓ Internally published newsletters, reports, and journals
- ✓ Mirroring and cataloguing of Internet information sources
- ✓ e-mail,
- ✓ Bulletin board services

- ✓ Netnews systems
- ✓ Audio and video communication
- ✓ Electronic tables of contents
- ✓ Electronic document delivery services
- ✓ Electronic theses and dissertations, and references are among the other four categories
- ✓ Centralized storage for indexes and digital archives
- ✓ Resources for storing, retrieving, and displaying digital things
- ✓ Service for Special Collections

5. Digital Library Processes

a. Selection of content

The DL's content is chosen based on the collection's usefulness, worth, and uniqueness. It may be in print or electronic media, owned or licensed, internal or external, free or commercial. Content for educational and business purposes may include Staff publications, e-mail archives, news, reports, policies, and plan documents, as well as drawings, software, press releases, presentations, courseware, talks, best practices, and more.

b. Purchase of content

Digital libraries have acquired material that is already digital or that is going to be converted, and they can be loaded in one location or across several. The digital content's format (PDF, TIFF, postscript, html, or xml) can be chosen from those that are accepted for today's and tomorrow's presentations, and it shouldn't require a special access mechanism.

c. Access to and transmission of content

Global access to and delivery of digital material are changing due to DL. This enables different types of searches, including global search and resource type search, as well as structured search (metadata driven), object search (full-text, multi-media object search), and search at a finer granularity (tables, figures, paragraphs, and section titles). (e.g. bibliographic databases, e-journals, reports, experts). Relevance ranking, search refinement, search history, search set combination, personalization, and customization are all included in the search features. Additionally, it makes organized presentation (display) and hierarchical browsing (topic directory/subject schemes) easier. Area of access and transportation to In these areas, digital libraries are creating cutting-edge technologies and procedures that will take advantage of the digitized nature of DL content and enable quicker, easier, and less expensive access to content, providing a strong justification for the work you put into digitizing.

Conversion to digital mass storage speeds up the transportation and access processes.

d. Usage and monitoring

Usage and monitoring: DL has a combined usage and monitoring system that provides information on what digital sources are used, how much they are used, and by whom. These responses could aid in your evaluation of information services and system efficiency.

e. Digital Preservation

Digital preservation includes very different techniques, abilities, and results. It can complement traditional preservation services while also presenting information in novel and exciting new ways. Through the passage of time and evolving technologies, the digital library guarantees permanence and ongoing access.

6. CHALLENGES:

a. Economical

Its invention, production, and dissemination are always expensive. Libraries now have access to new, ambiguous economic realities and connections thanks to digital libraries. The digital age is likely to require customers who will be required to pay fees for access to digital services and collections, where the costs of getting information were once concealed from patrons. The biggest barrier is automation. The expense of digitization is very high. Particularly when one pursues digitization alone. In order for digitization to be successful in emerging nations, the socioeconomic environment must be favorable for a digital library.

b. Technological stagflation

Due to the rapid obsolescence of technology, digital storage mediums like hard disks, tapes, and floppy discs have very limited life spans. Better technologies have supplanted the dated computer gear and software that were used for data storage and retrieval.

c. Administrative

Long-term institutional, financial, and organizational commitments are required to create and work with the Digital Library. For the majority of libraries, managing the technological infrastructure for "digital library" services will be a major challenge, particularly as budgets continue to be cut and the cost of building and maintaining collections rises.

Local digital collection management is more difficult and costly than local print collection management.

d. Copyright

One of the challenges in the efforts to build substantial digital collections is copyright. The owner's original or unique work is protected by copyright. Future copyright and licensing regimes, as well as prohibitive expenses for digitization and support of technical infrastructure, will have a significant impact on digital collections and services. The emergence of digital collections may face an insurmountable obstacle due to copyright. In fact, copyright might wind up making it impossible for libraries to grant free access to the digital data they amass.

e. Lack of expertise

Many people believe that digital libraries are a difficult field. It is necessary to establish an infrastructure for the networked resource discovery and retrieval of widely dispersed, independently produced, and various electronic information. Above all, this infrastructure will need to be handled by experts who are familiar with the requirements and applications of information.

CONCLUSION

Despite being predictable given current library models, this viewpoint on the "digital library" still has an antiquated feel to it. The management of "digital libraries," costs, technologies, and legal concerns all work against the realisation of this vision from the previous paradigm. It seems strange to be discussing improving digital libraries at this point given how young the subject of digital libraries is. The initial digital libraries created by digitization projects, or even virtual collections, are being improved in this fast-paced environment, though, as user expectations and technological capabilities enable. In the middle of this frenetic activity, it is beneficial to assess user needs and preferences in order to identify Knowledge Organization Systems that can be applied to improve the digital library. By extending the original Digital librarians can use the network setting to add value to the digital library by organising it.

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