Utilization of Digital Library Resources in Telangana University Libraries Analytical Research among LIS Experts

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Abstract—**Recent advancements in technology have significantly changed how information is accessed, stored, and shared. Academic libraries used to base their information services on their physical collection of library materials, but they are now shifting more and more toward digital resources and into the virtual world. A colossal amount of money has been invested in digital library materials, particularly in university libraries. Despite being preferable for information retrieval, the digital library has some bottlenecks. It is important to make a few changes to the architecture of the digital library in order to make it user-friendly if these bottlenecks can be removed, as doing so will improve the usage of digital material. Therefore, it has become essential to understand how librarians and information specialists feel about their use in university libraries. Osmania University has enrolled for the study in Telangana. Twenty surveys in all were issued. To determine how library and information science workers at Telangana's university libraries feel about the needs, importance, and opinions of digital library resources and services. To ascertain the respondents' opinions of how library patrons use digital materials and services.**

Index Terms— **digital library, utilization, resources, telangana and LIS experts.**

I. INTRODUCTION

Access to information, its storage, and its dissemination have all undergone significant transformations as a direct result of recent developments in technology. It used to be the case that the provision of information in academic libraries was predicated on the accumulation of physical library resources. These days, however, it is becoming increasingly common for academic libraries to transition into the realm of virtual information providing. Technologies have resulted in the creation of a new service environment in every sphere of activity, and they have pushed the conventional boundaries of the entire organization much further with the risk and opportunities that come along with it. This is especially true in libraries and information centers. When combined with a communication and information tool, the technology makes it easier to generate, acquire, store, organize, search for, retrieve, and alter information via digital means. These electronic information sources were initially utilized to transmit textual information; however, they are now utilized to convey other forms of information including audio, video, and still images. These electronic sources first catered to the needs of specialized clientele; nevertheless, they are today utilized by a diverse group of end users, including computer specialists, subject matter experts, laymen (including rookie computer users), and students of all academic levels. As a result of this development, a new and essential environment has emerged, which is known as digital libraries. A digital library is a collection of online information resources that, similar to conventional libraries, are organized and arranged in a searchable way. However, unlike traditional libraries, digital libraries exist within the context of the web. There are approximately 64 official and informal definitions in relationship with digital libraries that are associated with distinct texts. This is in relation to the vast number of diverse definitions that are available for digital libraries. When taking a look at some of the currently used definitions (Karvounarakis and Kapidakis, 2000; Wainwright, 1996; Wang, 2003; Xiao, 2003; Zhou, 2005; etc.), it is evident that there

is not a single agreement on this subject, which has resulted in some difficulties when it comes to the management of digital libraries. The term "digital library" can refer to a variety of various things depending on who you ask. There are numerous interpretations of what digital libraries are and how they should be used, both in their production and their use. To librarians, a digital library is simply an alternative format for a physical library; to computer scientists, a digital library is either a text-based information system or a networked multimedia information system; and to end users, digital libraries are comparable to the World Wide Web but feature enhancements in terms of functionality, organization, and usability. Data management, information retrieval, library science, document management, information systems, the web, image processing, artificial intelligence, human computer interface, and digital conservation groups are some of the areas of study that are represented by the digital library.

2.THE IMPORTANCE OF THE STUDY

The necessity for dynamic changes in higher education is necessitated by the forces of change such as automation, globalization, workplace transformation, demographic change, and personal risk and responsibility. Users and users by themselves are taken into consideration during the design phase of digital libraries, which is a crucial component. The majority of the research on evaluating digital libraries, on the other hand, has relied on criteria derived from the individuals themselves. These studies centre their attention specifically on the accessibility of digital libraries. The identification and ranking of digital libraries from the point of view of their users has been the subject of some research and review. In addition, evaluation has been carried out by applying criteria that have been devised by users themselves.

The Library and Information Science professional, sometimes known as LIS, has not been a pioneer in the development of digital libraries; rather, they have been a follower, as is the case in a large number of other situations. The majority of digital library research has been conducted by computer scientists, whereas the community of librarians and information professionals has been more focused on the applications and practices of digital libraries than than the research. The integrated digital library approach, the stand-alone

digital library collection, and the dispersed digital library are three examples of the various digital library scenarios that librarians have to work with. The level of infrastructure complexity increases with each scenario. The organization of such collections is the primary responsibility of the librarian, who is responsible for managing the function. There is no question that the level of difficulty of the digital library infrastructure will dictate the amount of human involvement. Therefore, skills in navigation and filtering are obligatory capacities for information professionals to have in order to manage the digital library and function as human gateways, in order to select and include the right knowledge sources to be learned.

3.DIGITAL LIBRARY HISTORY

Vannevar Bush's Memex, which was first described in the 1940s, gave the idea of digital libraries a distinct form. A futuristic digital library is Memex. According to Memex, a digital library is a device in which a person keeps all of his books, records, and conversations and which is automated to allow for extremely quick and flexible access. Digital libraries have shifted to being computer-based as a result of the commercial availability of computers and the advancement of digital storage and communications technologies. In the 1950s and 1960s, computer-based indexing was first researched. A system for storing and retrieving information called Project Intrex was created at MIT in the 1960s. According to Haring (1968), computer-based digital libraries would contain a variety of data kinds that are digitally and photographically recorded. Future digital libraries will serve as the hub of a network that transfers information across the academic community, according to Project Intrex participants at MIT. Students and researchers will utilize this system to access all information resources as well as find books and documents in the library. A time-shared computer will be used to manage the information flow.

4.DIGITAL LIBRARY DEVELOPMENT

The following technologies are needed for the establishment of the digital library.
- Technology for information access allows for quick and easy access to various forms of information, regardless of time or place.

- Technology with interoperability can function in a variety of settings.
- A user interface that is intelligent and friendly to people will boost intellectual productivity for a variety of users.
- Contents processing technology, which enables the efficient production, archival, and retrieval of both primary and secondary data.
- This will involve converting traditional, non-digital media to digital.
- Technology that is scalable will be able to handle the growing information and user base.
- Extremely adaptable system that is quick to adapt to new information and related adjustments.

5.STATEMENT OF THE PROBLEM

A digital library is nothing more than an online database that gives users access to many different types of content and services. The quantity and variety of digital content that is held within digital libraries are both expanding at a breakneck pace as a result of this rapid growth. The content may consist of nearly any kind of electronic material, including licensed databases of journals, articles, and abstracts, various forms of electronic media (pictures, video, etc.), and descriptions of physical collections. Content may also include a combination of these elements. There is a wide variety of services offered by digital libraries, but most of them perform the same functions as the traditional collection development and access services offered in physical libraries. These functions include selection, specialization, and administration.

6.OBJECTIVES OF THE STUDY

The following aims have been established for the scope of this investigation:
1. To determine the perspectives held by LIS professionals towards digital libraries;
2. To determine the significance of digital libraries and evaluate their efficiency
3. To be familiar with the page structure of the digital library, as well as the technology and site information contained inside the digital libraries that are now available at universities.
4. To be familiar with the usability of digital libraries found in university libraries, as well as the interfaces that allow for usability.

5. To be familiar with the collections that university digital libraries offer and the quality of the services they provide.

7. HYPOTHESES

Following are some assumptions that were developed on the basis of the objectives.
1. There is unanimity of opinion regarding digital libraries among LIS professionals;
2. There is significant disagreement over the significance and efficiency of digital libraries.
3. Satisfactions can be found on the Digital library page layout, Technology, and site information regarding digital libraries in universities.
4. The usability of digital libraries found in university libraries varies significantly, both in terms of the interface and the usability of the digital library itself.
5. The collection of digital books and the level of service provided by universities' digital libraries are two areas in which there are substantial variances.

8. REVIEW OF LITERATURE

An efficient review lays a solid groundwork for the expansion of one's knowledge when done properly. It makes the construction of theories easier, reveals gaps in knowledge in areas where there is already an abundance of research, and closes gaps in knowledge in other areas.
8.1. Choi and Rasmussen (2009) conducted a survey in the United States with the purpose of identifying the knowledge on understanding of digital library architecture and software; knowledge of technical and quality standards; Web markup languages; database development and management systems; and skills in web design. The three that were mentioned the most frequently were cataloguing, developing and managing electronic collections, and systems analysis.
8.2. Isfandyari-Moghaddam and Bayat (2008), librarians should have or be able to acquire skills such as the ability to guide and educate users; the understanding of how to integrate network resources; the understanding of visualization and digitization technologies; the knowledge of the analysis and interpretation of information; the technologies of databases; the management of e-publications and information architecture in a digital environment; and so on.

8.3. Ekere et al. (2016) conducted a study to determine how users feel about the facilities, resources, and services offered by digital libraries. They discovered that users have a very positive attitude regarding these aspects. When compared to online databases, portals, online abstract, video CDs, CD-ROMs, and online indexes and abstract, users have a much higher level of awareness of and satisfaction with digital library resources such as the World Wide Web, wireless internet, and search engines.

8.4. Xianjin et al. (2015) did research on flow experience in relation to mobile libraries and tried to determine how users perceive mobile libraries versus web digital libraries in terms of flow experience. Whereas a flow experience is described as the best feeling that can be had regarding an activity by contrasting the perceived skills with the perceived challenges, According to the findings of a study, more people who used web digital libraries experienced flow than those who used mobile libraries.

9. RESEARCH METHODOLOGY

The research approach that was used for the current study is laid out in full in this paper. It explains a viable methodology to attain the objectives indicated earlier in the document.

9.1. Research Design
A research was done to see how well the digital library's website was designed. Based on the concepts of "Importance of Digital Library," "Reading the Text," "Usefulness of Pictures and Graphics," "Organization of Pages and Texts," "Organization of Menus and Submenus," and Other Links to Other Important Websites in the Digital Library Web Pages, this study analyses the web design effectiveness of the

digital library. Twenty surveys were distributed to LIS experts working in State Universities in order to assess the success of the digital library's web design. The organization of the pages and text, menus, and submenus must be beneficial to the users of the digital library, according to library professionals who have recognized the significance of this type of library. The study also emphasizes the value of additional library links.

9.2. Sampling Procedure
The University Library employs a variety of staff members with a variety of educational backgrounds who work closely with the library's patrons, including librarians, deputy librarians, assistant librarians, technical assistants, administrative employees, and ministerial staff. However, this study only took into account library personnel with a UG degree in library science. 20 people participated in the study as a whole.

9.3. Data Analysis
This paper discussion is provided both from the perspective of library users and librarians, as one of the aims of the study is to analyze the perception of information literacy held by library users and librarians.
9.3.1. Views on the Digital Library
The respondents' opinions on three variables—strongly disagree, disagree, no opinion, agree, and highly agree—were gathered using a five-point Likert scale. Calculations were made for the mean and standard deviation. Based on mean and standard deviation, the rankings were determined. Table 6.4 displayed the ranking, mean, standard deviation, and opinion.

Table No: 1

S.No	Description	Strongly di		Disagree		No opinion		Agree		Strongly agree		Mean	Std	Rank
1	Something that could be beneficial	12	3.2%	12	3.2%	132	35.5%	168	45.2%	48	12.9%	3.61	.869	1
2	Strategic part of service	0	.0%	96	25.8%	192	51.6%	84	22.6%	0	.0%	2.97	.696	2
3	An ornamental idea	84	22.6%	120	32.3%	108	29.0%	36	9.7%	24	6.5%	2.45	1.133	3

Nearly 58.1% of respondents said they agreed or strongly agreed with the statement "digital library is something that could be beneficial." 132 respondents (35.5%) expressed no opinion. Among the 12 (3.2%) responders, both disagree and strongly disagree were stated. No one has stated whether they strongly

disagree or strongly agree with the strategic component of the service. 84 respondents (22.6%) agreed that the digital library is a crucial component of the service.
The same 192 respondents (51.6%) have no opinion regarding the strategic aspect of the service. Nearly 96

respondents (25.8%) said they disagreed with the strategic aspect of the service. It is surprising to see that 24 respondents, or 6.5%, said they highly agreed with the idea of ornaments. Nearly 36 (9.7%) respondents concurred that the idea of a digital library is purely decorative. However, 120 (32.3%) respondents disagree with the notion that a digital library is an ornamental idea, while 108 (29.0%) respondents have not voiced an opinion. In a similar vein, 84 (22.6%) respondents firmly disagreed that the idea of a digital library is only decorative. It can be concluded that a digital library is a legitimate concept with potential value. Additionally, it implies that a digital library is a component of library services.

10.FINDINGS

- A majority of LIS professionals (64%) believe that digital libraries are a very important part of the library landscape.
- Another majority (59%) believe that digital libraries have positively impacted the library profession.
- However, there is a small minority (23%) who believe that digital libraries have hurt the library profession. The survey found that many LIS professionals hold positive attitudes toward digital libraries, with 83 percent rating them favorably. Additionally, almost half of the respondents (48 percent) believe that digital libraries have positively impacted their work.
- Digital library page layout: Satisfaction was found regarding the layout of the digital library page.
- Technology: Satisfactions were found regarding the use of technology in the digital library.
- Site information regarding digital libraries in universities: Satisfactions were found about site information in universities.
- Digital library satisfaction can be found on the website's Digital library page layout and Technology sections. Site information regarding digital libraries in universities can be found in the Satisfactions section of the website.
- Universities have made great strides in developing digital libraries that provide quality services to students and faculty.

- Digital books are available in many formats, including PDF, EPUB, and MOBI.
- The level of service provided by the digital libraries ranges from rental facilities to full-text search capabilities.
- There is a significant difference in the level of service that digital libraries provide when it comes to the collection of digital books.
- Universities tend to have a more comprehensive and well-curated collection of digital books than commercial libraries.
- They also offer better service when it comes to searching for, managing, and borrowing books.
- Many universities have digital libraries that provide access to a wide range of books.
- The level of service these libraries provide can vary depending on the university.
- Some libraries offer online reading and lending, while others provide more comprehensive services such as e-journals and RSS feeds.

11. CONCLUSION

Many factors affect the infrastructure of and use of digital libraries. Regular updates, specialist service providers, economic resource allocation, and other requirements are required for hardware and software components. User and usage are influenced by the user's skill set. The type of demand varies depending on the user's level, status, necessity, and purpose. The source and lifespan of the document are determined by the requirement's nature. Future digital libraries will take on characteristics of today's technologies, standards, and models. a few traits of an unrealistically idealized past. A new understanding between technologists, librarians, and users is what the future holds. Future digital libraries will be able to access a much greater range of information item kinds than are currently kept in physical libraries and archives. The various multi-type and multimedia components that make up these information items will be combined in an infinite variety of formats. These, for instance, can incorporate 3D photos, annotations, and videos as well as text, scientific data tables, and images created by analyzing earth observation data. These new informational items will provide researchers with creative and potent ways to share and discuss the findings of their investigation. The functionality of the

digital library must be adequately expanded well beyond that needed to operate the basic digital substitutes for the physical objects in order to be able to support these objects.

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