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# AN ANALYTICAL STUDY OF LIBRARY MANAGEMENT IN THE AGE OF INTERNET AND DIGITAL REVOLUTION

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#### **Abstract**

Library management has gone through many challenges since its inception. With the human quest for knowledge, it became inevitable to find a way to store that knowledge in a systematic way. Thus there is a symmetrical relationship between the evolution of knowledge and management of that knowledge. Library management stood all the challenges and complexities of storing and accessing knowledge for a long time. This paper appraises the response of Library Management, both as a discipline and a management tool to handle the challenges and opportunities created by the digital era. The paper evaluates the conflicts and strengths of library management in the light of digital library developments.

#### **Keywords**

Library Management, Digital Library, Internet, Knowledge Management.

#### Introduction

Library management is a subdiscipline of institutional management to focus on particular problems in the library system. Management of a library includes standard managerial duties as well as duties related to fundraising and intellectual freedom. The fundamental duties of managing a library comprised: organizing and negotiating the purchase of items, processing ILL requests, maintaining the stacks, managing the fee collection, organizing events, raising money, and managing human resources.

The primary operations of the library are managed by the library management system. A library management system's basic functions include stock acquisition, stock maintenance, member data administration, membership fee collection, late fee calculation, etc. The majority of modern libraries need specialized software to control their daily operations, including the storage of books, journals, and other materials. As a result, the workload for librarians has been significantly lightened. Even though these modern amenities powered by the internet reduced

the workload of librarians, one cannot dispute that librarians have to deal with new challenges as the technology geared up.! (Barton, 2004).

In this context, it will be interesting to examine the challenges and prospects of library management in the age of the internet. Strength, Weakness, Opportunity, and Threat, also known as SWOT analysis, will be used in this paper to make sense of space for both progress and conflict in library management, specifically in the context of internet technology.

#### Library in a traditional sense

The image of a traditional library is limited to nostalgic feeling nowadays, as technology entered the libraries of remotest corners of the world. Even if the internet revolution is kept aside, there was no lack of scientific temperament in library science. Traditional libraries and their systematic working system is evidence of that. To keep books and periodicals in good condition, librarians have traditionally taken on the role of custodians in traditional libraries. In a traditional setup, users must travel to the library in order to learn about and use the library's resources.

By organizing their collection for ease of access and availability, libraries have built up tools to inform their users about the document resources they have, and they also assist users in getting any information they may require from the library. (Cervone, 2011) Print and electronic editions of books, magazines, databases, and newspapers are available through traditional libraries; however, online libraries offer a credible, trustworthy and reliable alternative for accessing these materials via the internet. Most of the time, the information you have access to is based on your personal preferences.

Reference and Information Services are commonly referred to as Library Services. These are the activities that a library should never be without. Responsive services and Anticipatory services are divided into two broad categories for the purpose of organizing and operating these services effectively and efficiently to the fullest satisfaction of users.

# Responsive services

The library's responsive services are offered in response to the needs of the users, whether it's helping them use the library's tools and facilities, or providing answers to any type of reference questions. For example, the user may make a request face-to-face; by phone; via e-mail; and/or online. Customers can now request materials from the library from anywhere in the world at any time thanks to advances in technology. The list of the products and services library offers goes like this; help with the library's resources and equipment borrowing or circulation service borrowing from another library referral service, short-range, long-range, referral research, bibliography compilation, photocopying, referral services & translations etc.

# Anticipatory services

As a result of anticipating the needs of customers, anticipatory services are offered. "Active services" are another term for these types of services. Many reasons led to the development of this service, including an explosion in scientific and technological publications, interdisciplinary research that disperses data across fields, and publications of research findings in a variety of formats and sources. The researchers found it difficult to keep up with the latest developments in their fields of study because of the growth in volume, diversity, and complexity of information sources. For this reason, libraries, particularly S&T libraries, began providing services that anticipate the needs of their patrons in an effort to alleviate this issue.

Different types of libraries offer a wide range of anticipatory services. Preparation of reading lists and services for current awareness are two examples of anticipatory services. A list of all items in a collection; a service that provides access to articles by journal-title; and This service is called SDI (Selective Dissemination of Information). Services for collecting newspaper clippings Abstracting and Indexing Services. (Jordan & Lloyd, 2018).

Even before computers and the internet, libraries served the core functions, where people could go to read and record their thoughts and ideas. Libraries have evolved over the past half-century into a source of information resources. (Jean, 2014).

# The following list includes the primary duties of library management.

- Updating stock information: information on new books, magazines, circulars, etc. must be entered. Additionally, magazines are handled correctly.
- Record-keeping requirements: The library must be kept in good condition, along with its patrons, employees, and every pertinent detail.
- Assigning unique identity number: A unique identity number should be given to each item, including members, who should also receive their own identification numbers.
- Managing Periodicals: This task involves managing materials that are delivered on a periodic basis, such as newspapers, journals, and so forth.
- Technology advancement: The management system in this fiercely competitive sector should be cutting edge.
- Reservation: One of a management system's most crucial features is the ability to allow members to reserve a specific item they want from any location by using their membership number.
- Better search options: One of library management's most crucial responsibilities is to offer better ways to search for a specific stock.
- Report generation: The library management system should produce prompt reports as needed.
- Audit: The LMS should be set up so that it takes only a few seconds to audit every asset in the whole library.

Nowadays, computer-based management systems are more prevalent than hand-operated ones for libraries. Work is made simpler and quicker, and management tasks can be completed effectively and without being bothered by mistakes.

#### Rise of the Internet and Changes in Library Management

Every network on the Internet is linked to every other network through a mechanism that allows it to exchange data with other networks. The Internet typically serves as a medium for exchanging data and information. ARPANET, a network developed by ARPA, was the genesis of the Internet in 1970. (Advanced Research Projects Agency). Internet was not for the common day-to-day usage in the initial days and it was the monopoly of the US Department of Defense. Internet was later adopted for day-to-day human functions and the educational community made the best out of it by creating educational networks for exchanging information.

Since the turn of the twentieth century, we've seen libraries come to terms with how they fit into society and how they view themselves as institutions. (Sreenivasulu, 2000) Today's information technology revolution is affecting every aspect of human life, from education to industry, from politics to business, and even from leisure activities. Aside from these changes, the ability of information technology to transform the way governments, the public and the private sectors and libraries operate worldwide has been profound. Consequently, as correctly stated by Ajayi (2002a), ICT's emergence and convergence remain at the center of global social and economic change. Libraries, as noted by Ogunsola and Okusaga (2008), are now providing low-cost or free computer access to online resources as part of their traditional roles of facilitating self-education and individual enrichment. Aweinspiring possibilities arose as a result of what was possible in terms of information generation, acquisition, collection, processing, display, and dissemination. Electronic developments like these are the foundation for what's known as a digital library or a virtual library.

These technological advancements have led to the creation of the digital library. The term "digital library" can be questioned at this point. It will take a long time to build a digital library that contains all of the written and spoken words of the world's literature. (Robinson, 2008). A digital or virtual library is a website that provides links to other websites with a large store of information in a cataloged or archived form, or it can refer to the online access provided by other facilities. It can refer to any and all material that is available on the Internet, regardless of its subject matter. The majority of digital libraries are part of a larger network that connects them to other libraries.

The vast collections of information that can be accessed remotely are referred to as "digital libraries" or "virtual libraries." On college campuses, is the library a thing of the past? Is it becoming obsolete in the electronic world we live in today? Because of this, it may be tempting to wish this were the case from a financial standpoint. In recent years, librarians have seen a dramatic shift in the tools they use on a daily basis. There are few libraries today that are exactly the same as they were just a few years ago. A public access catalog (OPAC), public computers with CD-ROM drives and scanners, or public terminals connected to the Internet are now available

in most libraries in addition to the more traditional means of cataloging materials such as cards catalogs and microfiche readers. For the first time, libraries are allowing users to access a wide range of services without ever having to step foot inside one.

## Challenges and opportunities for library management

In addition to the acquisitions, cataloging, classification, and periodicals sections, the library's staff works in a variety of other areas as needed. – To make it easy for people to find the information they need. (Matthews, 2011)

- To identify and recognize various ways to acquire library books at a low cost and high quality. Users' needs and information resources are the primary goals of this process.
- To buy books, periodicals, and journals from reputable vendors, as well as those recommended by users and managers. — Providing access to e-books, online journals, and other digital publications as requested by the customers.
- To disseminate publisher catalogs throughout the academic community in order to facilitate the recommendation of books based on demand. —— Subscriptions to online journals, e-books, and databases, as well as access to the internet, are all necessary to take advantage of the wealth of information available.
- Print journals are necessary for syllabus communication with the teaching faculty in order to make recommendations for new titles.
   Using library software to automate the library and make resources more readily available to patrons.
- In order to plan out the budget for the purchase of various library resources and equipment. —— To aid in the sharing of resources by providing OPAC users with networking capabilities.
- To keep track of all printed and digital resources that have been obtained. Library website development for accessing information from a variety of locations via links to other resources is the goal here.
- Organize a collection for efficient use by cataloging and categorizing books and preparing index terms.
   It is essential that libraries have digital library software in order to access and analyze the library's digital content subscriptions and analysis results.
- Indexing; abstracting; reference services; information services, etc. are all examples of this.
- To make online journal back issues available to the public.
- To make traditional and digital sources of information available to the public.
- Maintaining a digital library necessitates both technical and administrative skills.
- Using various resources, to provide users with current awareness and selective dissemination services.
- Staff at the library are well-versed in computer hardware and software, allowing them to offer digital services to patrons.

Apart from the traditional challenges faced by library management, there are some specific problems associated with the era of the internet. (Joint, 2009). Digital libraries visited us with an equal amount of challenges and opportunities. Some of the prominent challenges are listed below.

## **Information Security**

"Limited access to personally identifiable information about persons is a condition of privacy" (Milberg et al., 2000). The importance of privacy has increased in the virtual world. One of the biggest obstacles to the growth of the virtual trade has been identified as a privacy breach (Bakke et al., 2005). The privacy of users is in danger in a library setting where users are increasingly using library resources in a virtual environment. Before the advent of the digital age, libraries typically kept track of their patrons using reader's borrowing cards (Sturges, et al., 2001).

#### Copyrights

Another significant difficulty that the digital age is presenting to libraries is how to safeguard intellectual property rights in a networked society. In addition to copyrights, information ethics is a concern (Capurro, 2001). Without authorization, accessing, copying, and printing of protected materials through library networks can result in serious consequences for that library. Because users don't understand that copying a stream of bits without necessarily reducing the availability of that stream to other users can potentially be considered a violation of intellectual property rights, it has become more challenging to protect intellectual property rights in the digital age.

#### Lack of interest in library visits

Many Indian universities were found to use search engines. In contrast to physical access to the library during the previous 10 years, McClure revealed that access to networked information resources is desired. 43.99 percent of students in various business schools in Dubai say they prefer search engines. Benefits of search engines include 24/7/12 availability, simple searches, and 42 current pieces of information. For 43 researchers, having easy access to information is crucial. When compared to its ease of use, a search term's enormous quantity of results is what drives its widespread adoption.

#### New modes of Training and literacy

Due to a lack of awareness and training, Pujar & Sangam discovered that numerous resources, particularly technological resources and services, were being used to a reduced level. The poll was done among those who work in the field of economics as directors, assistant professors, etc. Haneefa discovers that the majority of consumers find workshop/orientation programs on ICT-based resources and services necessary.

# Delivery and use of resources

The electronic library has evolved. The transfer of resources used to be handled by librarians. The majority of this job is now done by the users themselves in a modern setting. Paper document borrowing can be totally automated. The ability to access digital resources has evolved into a fundamental talent for learning, and the majority of users are proficient in the knowledge and tools needed to find and use a variety of information sources. (Kumari & Mishra, 2020). A traditional library cannot offer all the features and types of digital resource services that digital libraries can. The present user intent and techniques for using the resources of the digital library are, however, being constantly eroded by the emergence of academic big data on the internet, and users now prefer to give other digital resources on the internet priority access.

# SWOT analysis and a Way Forward

Libraries today make use of Internet technology to give their patrons easy access to a wide range of information. Libraries are using the Internet to provide a wide range of services. We can see the value of the Internet in library service by looking at this example. It's becoming increasingly common for libraries to offer online document delivery and discovery services. The Internet is a powerful medium for document delivery, and this makes it easy for library users to access documents.

Online Public Access Catalog (OPAC) - With so many libraries now offering online access to obstetricians, the OPAC is critical. This means that the Library catalog is accessible to the user and provides convenience. Information sources around the world can be accessed via the Internet, which connects remote information to the rest of the world. As a result, the library makes it easier for people to use its resources. (Le, 2015). The Internet can be used for a wide range of shopping and business transactions. The library's selection of books and purchases is simplified thanks to the Internet. Its primary mode of communication is via the internet. Library catalogs, tourism information, and the like are frequently made available through local public libraries in various communities. This is where the Internet comes into play.

The exchange of messages between the user and the library can be done via Email. It is possible to reserve books and request them from other libraries using this service. In order to stay up to date, both the library and the user can use the internet. Connecting documents is another way to use it. Combination of home pages with electronic text databases and other Internet resources - Libraries combine home pages with these. As a result, it is easier to offer information services.

#### **Conclusion**

In recent years, librarianship and library management has undergone a dramatic shift, which will continue in the years to come. The librarian's job description has evolved along with the evolution of libraries. Today, librarians are also serving as educators, helping patrons learn how to use the library and electronic networks to find information. Local community information has been made available to the public via public computers in public libraries, expanding their roles. Experts in computers and software can be found in some libraries' staff. Another concern is whether or not computer technology can preserve human cultural records from the past or ensure that library collections on deteriorating paper or old computer files can be used by people for many centuries to come. Initial responses from different library management dynamics have shown that the discipline has the inherent property of adapting to changes. Library management is one such organized discipline where we can observe the principle of 'the greatest challenge is nothing less than the greatest opportunity.!'

#### References

Bakke, S., Faley, R., Brandberry, A., & Troutt, M. (2005). 'The impact of privacy concerns on the use of information technologies: A preliminary conceptual model'. Proceedings of the Eleventh Americas Conference on Information Systems, USA, 75, 570-585.

Barton, J. (2004). Measurement, management and the digital library. Library Review, 53(3), 138-141. https://doi.org/10.1108/00242530410526538

Blackstone, W., Prest, W., Lemmings, D., Stern, S., Gallanis, T., & Paley, R. Commentaries on the laws of England.

Capurro, R. (2001). 'Ethics and Information in the Digital Age'. Paper presented at the LIDA Annual Course and Conference, Dubrovnik, Croatia, May 23-27.

Devaiah, N. G., & Keerthiraj. (2021). E-Governance in India: Challenges and Strategies. OrangeBooks Publication.

Cervone, H. (2011). Knowledge management as a method for supporting digital library projects. OCLC Systems & Amp; Services: International Digital Library Perspectives, 27(4), 272-274. https://doi.org/10.1108/10650751111182579

Jean, G. (2014). Digital Library. World Technologies.

Joint, N. (2009). Practical digital asset management and the university library. Library Review, 58(2), 89-96. https://doi.org/10.1108/00242530910936907

Jordan, P., & Lloyd, C. (2018). Staff management in library and information work. Routledge.

Keerthiraj, Suresh, K. G., Raja, A., & Devaiah, N. G. (2022). Research And Teaching In Political Communication: Ideological Asymmetries Determining Media Discourse In India. Webology, Volume 19(No. 3).

Kumari, N., & Mishra, S. (2020). Comparing Digital Library Job Requirements and Digital Library Course Curriculum: An Indian Perspective. SRELS Journal Of Information Management, 57(6), 297. https://doi.org/10.17821/srels/2020/v57i6/154832

Le, B. (2015). Academic library leadership in the digital age. Library Management, 36(4/5), 300-314. https://doi.org/10.1108/lm-07-2014-0083

Library Management for the Digital Age: A New Paradigm. (2015), 64(6/7), 508-509. https://doi.org/10.1108/lr-02-2015-0012

Matthews, J. (2011). The digital library survival guide. EOS International.

Milberg, J. S., Smith, H. J., & Burke, S. J. (2000). 'Information Privacy: Corporate Management and National Regulation'. Organization Science, 11(1), 35-57.

Optimizing Academic Library Services in the Digital Milieu: Digital Devices and their Emerging Trends. (2015), 36(4/5), 388-389. https://doi.org/10.1108/lm-04-2015-0020

Robinson, M. (2008). Digital nature and digital nurture: libraries, learning and the digital native. Library Management, 29(1/2), 67-76. https://doi.org/10.1108/01435120810844658

Sreenivasulu, V. (2000). The role of a digital librarian in the management of digital information systems (DIS). The Electronic Library, 18(1), 12-20. https://doi.org/10.1108/02640470010320380

Sturges, P., Iliffe, U., & Dearnley, J. (2001). 'Privacy in the Digital Library Environment'. available: http://www.ffzg.hr/infoz/lida/lida2001.

The Digital Factor in Information and Library Services: International Yearbook of Library and Information Management 2002-2003. (2003), 24(8/9), 450-451. https://doi.org/10.1108/lm.2003.24.8\_9.450.1

User Studies for Digital Library Development. (2013), 34(1/2), 145-147. https://doi.org/10.1108/01435121311298379