

**Changing Role of Librarianship in Digital and Virtual Environment**

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Abstract

The library and information service profession is one of the most challenging professions in the knowledge society. The role of library professionals has become more dynamic and challenging in the modern world. This paper covers the role of librarianship in the digital and virtual environment. This paper outlines and discusses the changing role of librarians in the digital and virtual environment. Librarians for involvement in an information-based society including electronic and multimedia publishing, internet-based information services, global networking and web-based digital resources etc. the base of recorded information is growing at an accelerating rate, increasing varieties of formats (text, numeric, graphic, video, audio, image, electronic etc.). A virtual library can be defined as an internet-based digital library. The concept of the virtual library is that any person who has a computer by which he can make connection to the library networks can access not only the resources of the library but also access variety of information that is available nationally and internationally through networks, like internet, intranet without being physically present in the library. This article explains what is meant by a virtual library and to build a virtual library in what way the librarians have to change their roles to face the challenges of modern information technologies in the changing environment.

Introduction

In this age of information technology, there have been so many opportunities for the Librarians for involvement in an information-based society including electronic and multimedia publishing; internet-based information services, global networking and web based digital resources etc. librarians are charged with selecting, organizing, and instructing patrons on how to locate and use the resources, and preserving information regardless of format or technology. Digital information is changing the role of librarians radically; no longer are they to wait for students to ask for assistance in finding information in a place called a library. Their new role makes it imperative for them to provide services and instructions regardless of place, time or format. Acquiring and providing dependable access to electronic resources require librarians to learn and apply new skills such as negotiating license agreements, understanding evolving technology, and building a virtual library to provide quality online information services to the users in time.

The Changing Environment

The role of information specialists is to facilitate the interactions between the potential information user community and the body of recorded information. The traditional information access and management role played by the information professions are expanding, particularly in the design and development of new information products and services and tools to support information seeking and selection, the analysis and synthesis of information content on behalf of users, and information of user instruction.

The significant changes that have impacted the way librarians work are the modern computer, and hence the technical push with the growth in the amount and production of technical and other documentation. Computers have been able to help in the processing, storage, and management of information, and their application is increasing even more dramatically at present.

Technology is highly dynamic and changing at a very fast pace. What is latest today will become outdated tomorrow. Rapid advances in ICT are constantly changing so fast that it is becoming increasingly difficult for LIS professionals to keep track and pace with the emerging technologies.

Recent trends in library and information services

Technological changes have been of such magnitude that it is difficult for individuals and institutions to follow them. More changes have occurred in the last few decades than in the previous few thousand years in several technological sectors such as the information sector.

Changing role of librarianship

In the Modern World, the role of LIS professionals is adapting to changing technologies, information environment and customers' expectations. Library professionals are increasingly responsible for providing traditional library information services and delivering online information services according to the actual user needs. Librarians need to keep up with their users' expectations to survive and service them. Librarians need to become information knowledge navigators who distil data into usable information.

As the information industry has changed, the expectations of information users have soared, and librarians have come to fear for their positions and profession. As we race into the future, librarians should begin to think about the library's position in the new environment. LIS professionals function under tremendous pressure to keep pace with the constantly changing technological environment. Today, librarians have to play multiple evolving and expanding roles to face many new challenges in the dynamic experts, techno literate, web usability expert, knowledge manager, navigator, trainer, educator, marketer, service provider, and more.

The modern trend is for the librarian's role to move from a passive intermediary responsible for guiding patrons to appropriate information resources toward a much more proactive professional whose role includes analyzing and repackaging information. Librarians have faced this challenge head-on by becoming masters of the web. Librarians create potent websites such as the national library of medicine's Pub Med database. Librarians see the web as an easier way to share what they know with others. They gather electronic information and create electronic pathfinders and front-end search tools to help users.

Librarians develop online tutorials and instructional web pages to help patrons perform the best searches. They gather links to web-sites on specific topics and lead patrons to these evaluated sites as a starting point.

The increasing cost of print and electronic journals causes many libraries to cut subscriptions and purchase data for a particular audience. It is the librarian's job to choose what is to be cancelled and to decide who will suffer least from the lack of access to detailed information. In the decision to cancel subscriptions, the librarian considers, among other things, the needs of the community the library serves and whether the information is also available within the organization. Price and timeliness in retrieving the information are also considered. When negotiating access with a publisher, the librarian must agree to certain photocopying or distributing electronic materials. Electronic publications can be easily forwarded to people outside the licensed user group despite copyright notices and efforts to educate employees about intellectual property rights. The library is responsible for maintaining the awareness of all employees about copyright issues.

Leadership in the Digital Age

In ancient times, there was no definite place called a library; records were scattered and consumed by fire most of the time. According to E-book (2000), records that formed part of early libraries fall into four categories:

- Temple collections;
- Government or royal archives;
- Organized business or economic records; and
- Family or genealogical papers.

Traditional librarianship is all about sitting down in the midst of books and expecting people to come and read. If they do not come, the librarian closes at the end of the day. This is the daily ritual. But the modern-day librarian in the digital age must be sound in the storage, retrieval and dissemination of information with the aid of information communication technology (ICT).

This may be through the computer, internet, E-mail, CD-ROM, slides, teaching aids, telephones, including the global system of mobile telecommunications (GSM), fax machines, etc. Archival materials could be stored on CD-ROMs for easy retrieval and dissemination to prospective users.

Librarians can now conveniently store archival materials on CD-ROMs. CD-ROMs are highly compatible with most computers; this means vital information can be preserved and retrieved easily when needed. Information and communication are veritable tools in developing cities and rural areas. The information must be available to all, be scientific, technical, and economic, social, institutional, administrative, legal, historical or cultural information. Information is valid only when available when users have access to it in the appropriate form and language. This means information must be communicated among the various users with appropriate facilities during the exchange. The concern of information professionals in the digital age could be found in the following areas:

- Agriculture- Information on the best agricultural practices;

- Health- Health management information system;
- Education- E-Learning, distance learning education;
- Economics- E-Commerce
- Politics- E-Governance, Political Education; and
- Software development.

In this Digital Age, libraries should be fully automated, and librarians must be involved in the design and implementation of any programme that bothers on this; if they are left out, it would be difficult because any equipment supplied without their approval may pose a serious problem for them. In addition, as information professionals, they must be able to develop suitable software for libraries. With the availability of digital equipment, information professionals must be able to delve into contemporary problems such as globalization, ethnic conflicts, gender issue, HIV/AIDS, political upheavals, war, divorce, birth control, etc. they should be able to help proffer reasonable solutions to all these because of the avalanche of information and apparatus at their disposal. For instance, a librarian could prove invaluable in a boundary dispute or chieftaincy tussle if he could provide relevant materials to the appropriate authority. We need not forget the use of the Geographic Information System (GIS). The equipment is suitable for inland mediation and management, management of natural resources, and infrastructure development.

Librarianship in the virtual environment

Making materials, we collect available to all current and future users is another of the core values of librarianship. The challenge is for the librarian to establish realistic collection-development policies covering the acquisition of and provision of access to electronic resources for users now and in the future. With the increase in electronic resources, librarians and libraries are no longer just collecting and caring for print materials. Unlike a print book or a journal, electronic resources cannot be considered a permanent addition to a collection. Payment for a product covered by a license is a payment to use the information product for a period of time usually specified in a contract. This payment is not for the outright purchase of the product or for ownership of all the rights to that product. A digitized collection means that libraries share the groups with other institutions locally and globally. The publisher dictates how much access will be provided, which issues will be available, and how much access will cost. According to keys, "access to these materials will be neither free nor certain as control of them passes out of the hands of the library."

The question of archiving virtual collections is very nebulous. Libraries, vendors, and publishers rely on someone else to archive and preserve information for the future. Some publishers may provide the archived data on CD-ROM, usually at an additional cost, but many do not. Instead, they provide rolling-year access so that the oldest content will not be available each year. Older articles can be found by visiting a medical or university library. Although they may be on microfiche or microfilm rather than in paper form, they will be catalogued and accessible. "it is not likely that commercial publishers and database aggregators will archive and provide perpetual access to electronic resources as libraries now archive print materials" every library should continue to do its part to preserve information in all formats. Failure to do so will result in gaps in knowledge for future research.

Libraries have frequently been early adopters of new technology, and librarians continue to be at the forefront in learning and teaching new technologies. Librarians see the internet and electronic information as tools used to provide information. Crawford writes that the librarian must "recognize that technology offers tools that those tools interact in complex ways, and that tools don't end in themselves." As librarians claim to be professionals, they must also claim professionalism's responsibilities, particularly trust. Librarians are accountable for the information they provide. If they are not doing so, they should take every precaution to avoid the distribution of misinformation. The provision of false or misleading information through carelessness breaches the trust the patron puts in the librarian's ethical duty to supply the highest level of service to library patrons, no matter the format of that information. In the end, librarians know that "a good library is defined by the principles of librarianship, the mission of the specific library, and the persons and services that make that mission a reality". Technology will continue to change, and libraries and librarians will use the changing technology to provide their patrons with the best access and services.

One primary role of librarians is to provide leadership and expertise in the design, development, and ethical management of knowledge-based information systems to meet the patron or institution's information needs and obligations. Electronic information provides librarians with challenges that are not necessarily new; however, as the nature of the librarians' role changes, so do the challenges to long-standing professional codes of ethics.

The challenges of the digital and virtual environment

A virtual library can be defined as an internet-based digital library or without walls. Timothy Green, Director of Business Research, defines Virtual Library as "a set of services that give customers the knowledge they need to make the highest quality business decisions in the least amount of time". The concept of a Virtual Library is that any person who has a computer and connection to the library networks can access not only the resources of that library but also a variety of information available through National and International Networks like the Internet and Intranet without being physically present in the library. The term "digital library" and "virtual library" imply a library that provides access to a collection of distributed information in electronic format through pointers provided locally or a collection of digital objects housed in the same place, virtual or physical". The virtual or digital library will have many standard library features. Still, there will be a change in how the library acquires and provides access to collections and in the compositions and roles of the library staff—moving towards a digital or virtual library challenges the accessibility of the information and the entire philosophy of what constitutes a document. Many librarians had heard that by the year 2000, all new resources would be digital. Although we have not quite reached that point, today, most libraries struggle to maintain a "transitional library" collecting and organizing print and electronic resources. Walt Crawford says that "ongoing complexity and unpredictable currents of change will mark the future of libraries", Even the terminology describing information is changing. Once, we described information in a printed, permanent format as a "document"; now, information is described as a "resource". Once one user looked at one book or journal at a time and now electronic information can be stored and accessed by millions of users simultaneously from personal computers (PCs) with modems or through direct internet connections from

home, work, or practically anywhere. Patrons no longer have to visit the library to retrieve information physically. This ability to access full-text resources electronically from within the institution or any PC, provides the user with convenient and immediate access to information. Expanded use of interlibrary loan and document delivery also offers the potential to provide access to all materials, rather than only to materials owned locally.

Conclusion

Library information professionals have to recognize the expanding nature of the technological changes and professional challenges they face in the modern world and realize to improve the range of professional competencies required to adapt and manage the changing technology successfully. LIS professionals must strive, struggle and enhance new skills and knowledge about new technologies needed to provide responsive Library Information Services to the users in the twenty-first century.

The remarkable growth of Internet has made a significant revolution in all the areas of science and technology. Rather than using it as a tool for searching and retrieving information, the Internet has become the king of all media. We can access virtual details and build a virtual library to provide timely, quality advice to the users. Librarians of this digital era are in the position to change their role as arbitrary information scientists/gatekeepers and to meet the challenges of the Internet, World Wide Web, on-line access and the concepts of virtual libraries. So, they must enrich their knowledge with special skills of the latest IT developments, browse access and retrieve particular information across the Global Networks, and organize and manage the information by building a virtual library by which they can provide quality digital information service the users.

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