

Development of Library from Traditional to Digital: An Overview

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Abstract

Traditionally libraries were collections of books, manuscripts, journals, and other sources of recorded information. In the last 50 years libraries have increasingly developed into a provider of information resources and services that do not even require a building. The terms digital library and virtual library are used to refer to the vast collections of information to which people gain access remotely. This paper attempts to highlight the theoretical concept relating to Traditional and Digital / Virtual Libraries.

KEYWORDS: Library, Traditional Library, Digital Library, Electronic Resources, ICT and Virtual Library.

1. INTRODUCTION

As society values information more and more, the information industry has developed. It encompasses publishers, software developers, online information services and other businesses that package and sell information products. It provides both an opportunity and a challenge to libraries. Although the development of digital libraries means that people do not have to go to a building for some kinds of information, users still need help in locating the information they want. In a traditional library, the catalogue is used to find traditional library materials, but much of the information that the Internet offers cannot be found through one commonly-accepted tool or resource. The increased availability of electronic information has led libraries and librarians to develop important relationships with computer centres. In some places, the computer centre is responsible for electronic information and the library is responsible for print information. In some educational institutions, librarians have assumed responsibility for both the library collection and computer services.

The changes in libraries and the roles of librarians originated in India and other countries, but electronic networks do not have geographical boundaries; and their influence has spread rapidly. With Internet connections across the globe, people who did not have access to traditional library services now have the opportunity to get information about all subjects, free of political censorship. Increasingly librarians have assumed the role of educator to teach users how to find information both in the library and over networks. Traditional libraries and librarians exist alongside the electronic libraries which are eroding the functions of both traditional and librarians.

This paper discusses the relationship between digital and traditional libraries. It takes a critical look at the belief that the information communication technology (ICT) revolution has destroyed traditional libraries as well as the librarians working in them. The paper recommends ways provide enhanced access to national and international library and information resources and to share locally available resources with libraries all over the world using digital technology.

2. DIGITAL LIBRARIES

The world is going through an ICT revolution that has drastically changed many facets of the human life, from education, industry, economy, and politics to entertainments. In addition, the unprecedented capabilities of the ICT to process, store, refine and disseminate data, information and knowledge in a variety of ways across geographical boundaries had dramatically changed the ways in which governments, the public and the private sectors and libraries operate all over the world. As Ajayi (2002) has rightly put it, the emergence and convergence of ICT has therefore remained at the centre of global social-economic transformations. As pointed out by Ogunsola and Okusaga (2008) libraries are now extending their traditional roles of facilitating self-education and individual enrichment by providing low-cost or free computer access to online resources. The potential of what can be achieved in information generation, acquisition, collection, processing, display and dissemination, was very exciting and intoxicating and resulted in futuristic dreams. All these electronic developments form the basis of digital library which is equally termed virtual libraries. It is all these technological developments which gradually give birth to what is now known as digital library. At this juncture, one can ask what we mean by the term "digital library".

Digital library can be defined as one in which all the texts and spoken books are stored as digital files, which will take a long time to achieve. A digital or virtual library is the online access provided by other facilities or it may mean a website which offers links to various sites with a large store of information in a catalogued or archived form.

The term may refer to all material related to any subject that is available on the Internet. A digital library generally is part of a network with linkages to other libraries. The advances in the fields of telecommunications, computer technology and satellite communications have revolutionized information delivery services in advanced countries. As asserted by Akpan (2001), information can be delivered across countries into houses and offices instantly. It must be realized that the sharing, however, has been uneven across the globe. Countries with advanced technology are years ahead of countries with developing economies. Within developing economies, some have moved further ahead than others. According to Irokwe (2001), a digital library is a library that harnesses digital technologies as infrastructure to search, collect, organize, store and distribute cultural, historical and scientific information whether it is text, visual images or sound. The virtual library or digital library can be regarded as a child of necessity, arising from need to use technologies in accessing the explosion of information for human survival and development. This requires that all operations of the library be computerized.

Digital library can therefore be defined as a collection of library resources in electronic / digital format at various locations, which can be accessed and used with great ease using computer & ICT for the purpose of teaching, study, research, learning, leisure and decision-making.

Electronic Resources Taking India as an example, improving the quality of libraries in the higher education system will improve the quality of the products of the system. In another sense, DL will enable students, lecturers, and other scholars to profit more fully from electronic communications revolution by having access to databases critical for their research and teaching.

Within the higher education system in majority of Indian University / College, libraries are far from being up-to-date. Books, journals, abstracts and other collections are not current. The typical setting is to have a few fairly recent titles and a fairly large

collection of old titles. There are gaps in sequence which could be critical for knowledge generation and dissemination. As a result of the above lapses, the importance of digital libraries in Indian universities can never be overemphasized. A digital library scheme will facilitate access to a vast collection of books and journal, titles from as far as back in time as possible. This type of electronic resources can be shared by all institutions at a fraction of the total cost required to support all the physical libraries within the higher education system in the country (Ogunsola and Okusaga, 2008).

Furthermore, it is projected that 1,000 electronic databases / resources are equivalent to 30,000 volumes of printed materials. These will require 2,650m² of shelf space alone. Thus, minimal resources can be mobilized for maximum advantage in terms of library development in India and other developing countries. In recent times, post secondary educational institutions have been under tremendous pressure for change as a response to demising budget, need to reach students other than their traditional clientele, and adapt current development in information technology for their delivery of institution. As a result many institutions of higher learning worldwide have turned towards electronic networking in academic services. The digital library also provides a platform for sharing knowledge. It is not a one-way flow from resource-rich to resource-poor countries.

Instead, it has been set up for uniformity in the interchange of ideas. Consequently while universities in India and other developing countries will take advantage of down loading materials from the developed world, such universities will have the opportunity of uploading output of research in the form of books, dissertation / theses and journals to the global network of virtual libraries. Also, differences in access to information technology and the ability to participate fully in global electronic information networks is in itself a measure of the unequal distribution of power in today's increasingly connected global economy and polity.

Digitalization within the framework of the virtual library project can be used to create a high-quality copy of an item, thus protecting the original and ensuring that the information that it contains is both permanently preserved and made accessible. Although traditional channels of communication will remain important, the new information and communication technologies hold great potential for broadly disseminating knowledge at low cost, and for reducing knowledge gaps within countries and between industrial and developing countries. In a broad sense as revealed by Ogunsola (2004) access to the right information at the right time gives people greater control over their destinies.

As a result of all these global technological changes, the purposes of higher education have been transformed. According to Capron (2000), mail, telephone, TV and radio, books, newspapers and periodicals are the traditional ways by which users sent and received information. However, data communication systems have been evolving since the mid-1960s.

Thus, the digital divide continues to widen. This is one of the constraints militating against digital library development in our higher education institutions. It is also noted that up country or newer university libraries and (in multi-site libraries) branch libraries lag behind in Internet connectivity. Programmes that assume all libraries within a region or countries that have the same needs and aspirations are unlikely to succeed. Therefore as most Indians still do not have good access to the Internet; online resources like digital libraries or the Internet are not yet the solutions to bridging the digital divide.

Hence, one can confidently conclude that traditional libraries are still alive and this will continue for a long time especially in developing countries.

3. COMPARISON

Libraries worldwide have witnessed a great metamorphosis in recent years both in their collection development and in their service structure. As pointed out by Mulla (2006), over the last several years, a significant transformation has been noticed in collection development policies and practices. Print medium is increasingly giving way to the electronic form of materials. For instance, electronic journals, one of the cornerstones of the digital library, have grown steadily in number. Several digital library projects provide digital access to materials that already exist within traditional libraries in printed media.

The external environment has a tremendous impact on the practice of the profession. As pointed out by Aina (2004) library and information science borrows from a number of disciplines, such as sociology, psychology, computer science, business, management, mathematics, statistics, marketing, etc. Thus, anything that affects any of these disciplines has a direct influence on library and information science. Library and information science is one of the fastest growing professions in the world. In countries such as the UK and US, information is one of the biggest industries, so research is going onto improve library and information science, and the professional librarian is expected to keep pace with new findings, and products in the profession.

Libraries have undergone a metamorphosis from a manual system to a technologically-driven system. In India, this change has become more manifest only in the new millennium. Like a cyclone, the technology driven environment has enveloped the library and is taking it to unprecedented heights in knowledge acquisition, management, and communication. As revealed by Akintunde (2004), even the vocabulary of librarianship is changing: 'dissemination' is being replaced by 'communication' 'repository' by 'data', 'literature' by 'knowledge', 'search' by 'navigation', etc. This reflects the current approach to packaging and the tools used for managing knowledge. Knowledge itself has become more ubiquitous than was ever imagined twenty years ago. More significantly, the library has become globalized. The library today is a technologically driven one that uses the principles of traditional library services to organize knowledge and communicate it to clients in the global community. At this juncture, one can rightly ask the question: that can today traditional libraries be able to survive the onslaught of digital or virtual libraries? One can answer yes and no, depending on the locality, but the majority of African libraries are in real crisis and their future seems very bleak. In developed countries, traditional libraries will exist side by side with digital libraries because people continue to publish both in printed and electronic forms.

Since the early 1980s, libraries across Africa have experienced a very deep decline in resources and services. Funds provided are grossly inadequate. In fact, most libraries do not get up to half of their minimum requirements. In most of the places, available funds only cover staff salaries. As pointed out by Osundina (1973) the library of today should not merely store documents and preserve them, it must also devise means by which the contents of such documents can be rapidly and effectively transmitted for use. It is essential for students to be aware that electronic resources and print-based resources complement each other; hence, it is wrong to believe that traditional libraries

are dead. Not all the university libraries, especially in Africa, have reached the stage where print journals and books are replaced with electronic ones, but the issues is becoming a real one.

For instance, librarians can now answer questions through personal e-mail and mailing lists. By so doing they can now provide specialist backup for those on enquiry desks. A digital library can now carry out electronic searches for its users for their course work, assignments, and projects. The above functions and relevance of electronic libraries are seriously eroding the usefulness of traditional libraries. An acquisition is done with computers, with online selection, payment, and subscription (Olaosun, 2007). All these developments pushes the librarian away from the library users. Technology has made acquisition, processing, storage, indexing, and retrieval of information faster, cheaper, and more efficient. One can be tempted to agree that technology has virtually "murdered" traditional libraries as well as the librarians working in them; however, both librarians and traditional libraries must remain at the scene. They will remain relevant if only they understand what goes on around them. If they re-educate themselves as information managers, able to sift information, able to filter the bad information abounding on many websites, able to facilitate the human-machine interaction, they hold their own in the race.

Librarianship has undergone a radical change in recent years, which will be continued in the future. As libraries have changed, so too, has the role of the librarian. Increasingly librarians have assumed the role of educator to teach their users how to find information both in the library and over electronic networks. Public librarians have expanded their roles by providing local community information through publicly assessable computing systems. Some librarians are experts on computers and software. Others are concerned with how computer technologies can preserve the human cultural records of the past or assure that library collections on crumbling paper or in old computer files can still be used by people many centuries in the future. The work of librarians has moved outside library walls. Librarians have begun to work in the information industry as salespeople, designers of new information systems, researchers, and information analysts. They are also found in such fields as marketing and public relations and in such organizations as law firms, where staffs need rapid access to information. It must be realized that despite the changes in the roles and functions of libraries over the course of history their cultural role has not. Libraries remain responsible for acquiring or providing access to books, periodicals, and other media that meet the educational, recreational, and informational needs of their users. They continue to keep the business, legal, historical, and religious record of a civilization. They are the place where a toddler can hear his or her first story and a scholar can carry out his or her research. New technologies are dramatically increasing the accessibility of information, and librarians are adapting to the evolving needs of users that emerge from the adoption of these new technologies. Technological advances have presented the opportunity of automating some aspects of traditional libraries.

4. CONCLUSION

By deciding to change to digital production, a traditional library would make it much easier to cooperate with other libraries around the world. The more that a library can communicate with others the more they will be able to learn what has already been done. One of the ways we waste time and money is to try to invent everything ourselves.

Whatever you are trying to do in developing your library, you can guarantee that somebody else has already done something similar. If we are working with traditional methods and the only means that we have of sending materials to other institutions is by the post, then it is understandable that libraries tend to concentrate on their own affairs and their own public. It takes weeks to communicate with other libraries then the efforts becomes too much and it is faster to produce materials than to borrow it, if however, libraries can start to use the Internet to exchange information and materials, the exchange can happen in seconds. The digital library offers more possibilities for enhanced scholarly communication. The Internet and related technologies such as electronic mail enable collaborative projects to be undertaken between geographically distant groups. All developing nations can derive tremendous advantages from this technology for updating the knowledge of its researchers and scientists. The entire world is going online. The agenda for global preparedness includes the development of telecommunications and Internet infrastructure. Technology is the backbone of digital library, and the centre piece of preparedness is the expansion of technology in India.

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