Changing Concept of Libraries in the Modern Age: An Assessment

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Abstract

The role of libraries in the advancement of the society has been phenomenal. They have been providing mankind with knowledge and inspiration that have proved vital for the progress of civilization. However, with recent advancements in science and technology and increasing impacts of globalization, libraries have to redefine their roles to stay relevant in an ever-changing time. This paper, mainly based on the review of more than 40 papers covering the historical development of libraries, changing nature of libraries and the ever-changing role of library professionals at home and abroad, as well as the authors observations, presents a comprehensive picture of the changing landscape of libraries in the modern age. This paper explores the changing roles of libraries in the society by analyzing the viewpoints of leading thinkers and putting forward recommendations for the improvement of library services in the evolving knowledge society.

Introduction

Libraries have been serving mankind since ages. From the earliest libraries in ancient Babylonia and Sumer to the technology-rich modern libraries in the western hemisphere, libraries have played a vital role in the advancement of civilization by providing knowledge, inspirations, thought and insights. Although the earliest libraries could hardly be called 'libraries' as per modern standard, they provided humankind with knowledge and directions, that proved invaluable for carrying forward the dreams and aspirations of countless men and women, in their quest to make the world a better place for the human race. Over the centuries, many changes have come to the collections, work-processes and services of the libraries, as they have struggled to stay relevant in a rapidly changing society (Ogunsola, 2011). This has raised new questions and concerns regarding the utility and sustainability of libraries as an institution, as man continue their search for better ways of coping with the emerging needs of an ever changing time.

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Objectives

The general objective of this paper is to put forward recommendations for libraries to improve their collections, functions and services in the 21st century by re-defining their roles in the light of the changes caused by technological innovations and other socio-economic factors. The specific objectives are as follows:

1. To assess the transformative changes taking place in the libraries over the years.
2. To identify the current trends in libraries and information centres.
3. To provide recommendations for libraries to continue serving as a key social organization by optimizing their collections and services.

Methodology

The study is based on an in-depth assessment of relevant literature. In order to gain a comprehensive understanding of the changing trends of libraries in the 20th and 21st century, the authors have studied more than 40 papers representing the following broad topics:

a. Historical development of libraries in the society;
b. The changing nature of libraries in the current society;
c. The changing roles and responsibilities of librarians and information professionals in the 21st century in Bangladesh and abroad.

These assessments, reinforced by the authors' personal observations as practitioners and academics in the field of library of information science, have been used to come up with the observations and recommendations made in this paper. The authors' informal discussions with library and information practitioners and academics also have been instrumental in compiling these observations and recommendations.

Literature Review

As indicated in the methodology of the study, the authors have reviewed a number of papers, articles and commentaries on relevant wide ranging issues to have a solid understanding of the changing roles of libraries in the modern society. A significant portion of the reviewed literatures focuses on the emergence of libraries in early societies. There is a huge corpus of literature covering this subject and the authors have reviewed some representative texts. Black and Murphy (1994), Lowell (1998), Harris (1999), Battle (2003), Polastron (2007) and Murray (2009), and others have elaborately discussed the history of evolution of libraries in the ancient world. Mostly developed and patronized by royal families and elites, the libraries, at various times, have served as a collection of books and manuscripts, a collective memory, a centre of scholarship

and learning, a tool of research, a repository of treasured knowledge as well as a medium for wielding influence. The above mentioned authors agreed that, as time progressed, most of these libraries enhanced their collections and services to serve a greater number of users instead of a select few.

The changing roles of libraries in an evolving knowledge society have been analyzed by numerous authors. They have near unanimously observed that libraries need to make a complete overhaul of their services in order to stay relevant in the new century. Kapitzke (2010)'s concern about the gradual transformation of libraries into 'dematerialized nodes of virtual, informational space spanning oral, print and digital cultures' certainly holds true for most libraries in developed and developing countries alike. Calhoun (2003), McArthur (2005), Pateman (2007), Chee (2013) have extensively written on the changing trends in the libraries worldwide. They stress the transition from a book-centered to a data-centered focus, growing pressure on libraries to aggregate information from diversified sources, change in library service due to demographic change and an obligation for improving the user experience in libraries as major trends in the changing library landscape. Libraries are embracing new service models like resource discovery, community information centres, Makerspaces and digital commons, which promises dramatic developments in futuristic library services. These initiatives have been highlighted by many authors. Representative among them are Rasmussen (2001), Royster (2009), Camfield (2009), Dutta (2009), Race (2012) and Burke (2015), to name a few. Some highly significant reports prepared by professional association and institutes like the Australian Library and Information Association (2014) and Aspen Institute (2014) also shed light on the changing nature of libraries worldwide.

The changing roles of libraries in the developing world also have drawn considerable attention from the writers and researchers. They have discussed various emerging service models and initiatives like rural technology centres, telecentres, rural learning centres etc. have been serving the diverse needs of the rural people. Raju and Karisiddappa (2000), Iqbal (2004), Uddin (2005), Hoq (2012), Akanda and Roknuzzaman (2012) and many others have provided interesting insights into these service models and have indicated ways for improving people-focused library services. The initiative by the Bangladesh government to set up more than 5,000 rural information and technology centres, by the name of Union Digital Centres at the grassroots level of the country has been commended widely and has been suggested as a viable service model for

rural technology centres which make much needed information available to the rural people.

Library and information professionals are in the midst of a transformative change, not only in the way they discharge their duties, but also the way they are viewed by their clients as well as the people in the community. In order to rise up to the challenges they are facing, library professionals are assuming new roles and responsibilities that have been strikingly different than those they are traditionally practicing. A considerable number of writers have focused their attention on the changing activities of the library professionals, which calls for substantial upgradation of their knowledge, skills and expertise and a complete change in their views and attitude. Singh (2004), Sun et al (2011), Kamila (2013), Verma (2015) have written extensively on the changing roles of library professionals in the digital environment. The issue has also been discussed widely by authors like Zhu (2012), Fragola (2009), James, Shamchuk and Koch (2015) from a non-technological view-point, highlighting the roles of librarians as teacher, consultant, information-intermediary, knowledge manager and research guides, among others. They agree that, unless librarians fully comprehend and internalize the changing demands of the modern information-seekers and make serious efforts to realign their roles, they will never be able to discharge their duties effectively and would thereby lose their relevance in this fast moving time.

Libraries: From 'Collections' to 'Connections'

Since the dawn of civilization, men have resorted to various means to store and share their thoughts with fellow human beings. They have done this from an urge to make their presence felt by people from other places and times. In this effort, they have been aided by writing systems like cuneiform invented in Sumeria in the late fourth millennium BC and hieroglyphics in the 32nd century BC in Egypt as well as the development of writing materials like clay tablet (Sumeria and Babylonia), papyrus (Egypt) and parchment (Anatolia). The libraries established in Nineveh, Alexandria, Pergamum in the 10th to 6th century BC started a noble tradition, culminating in the founding of libraries all across the Greek and Roman empires. The first libraries were founded and promoted by kings and elites to exert their influence on the heart and minds of people. From the viewpoints of the monarchs, the establishment of libraries also served practical purposes. As Black and Murphy (1994) note, 'The collections of clay tablets that formed some of the first libraries were assembled by kings who needed them to administer their complex empires. Because of this function, libraries retained their importance: when Alexander the Great struck out on his eastern conquests, his

civil servants studied and collected the literary culture of subdued lands in order to govern them more effectively.' Since literacy was a privilege of the kings and nobles and the vast majority of people were illiterate, the use of libraries in the society was confined to a select few. However, with the spread of literacy and the invention of paper, libraries started to expand in services and collection. The invention of printing press by Johannes Gutenberg in the 15th century added a new dimension to the spread of literacy as the use of libraries, allowing hundreds and thousands of people to educate themselves by taking help from the libraries. This contributed to the European Renaissance in the 14th-17th century – paving the way for a wave of new discoveries and inventions that ushered in the modern era.

In this long journey, libraries have transformed themselves time and again as new techniques have evolved for providing services to a vast number of people. As the number of books published increased exponentially with the passing of time and people from all classes and creeds sought to enhance their knowledge by reading books, libraries gradually solidified their place in the society as the paramount institution of learning. However, great technological innovations in the late 20th and early 21st century have posed serious concerns regarding the place of library in the society as digital technologies have made it easier for people to acquire information and knowledge by clicking a mouse sitting at home. Libraries, therefore, have to seek new ways of making themselves pertinent in this ever-changing information landscape. At the turn of the 21st century, the massive surge of globalization reached even the farthest and remotest corners of the globe and brought irrevocable changes in all spheres of human activities. Libraries were no exception. New demands of competence within education, trade and industry, the public's demand for new services, new media and information resources, the range of possibilities offered by the Internet and digital services, among others, prompted libraries to expand the horizon of their services (Persson, 2003). Apart from huge proliferation of ICTs and their far reaching impacts, changes in the world of libraries have also been caused by the multifarious impacts of globalization, changing demand of the users as well as a changing mindset (for instance, users preferring more customized and individualized contents and services), information explosion accelerated by the proliferation of ICT, changing information seeking and using patterns of the users, lack of skilled manpower, lack of change management abilities by the libraries, budget cuts and financial problems, etc.

Here, it will be pertinent to highlight the major trends of library development from a chronological point-of-view starting from the 19th century:

1. The early 19th century marked the beginning of the modern era of library development started with the establishment of subscription based libraries in Europe, paving the way for greater use of libraries by people from all cross-sections of the society (Kelly 1966).

2. In the mid-19th century, foundation of the modern public library system in Britain through the Public Libraries Act in 1850, giving birth to the public library movement in the UK and elsewhere.

3. In 1876, three events of great historical significance accelerated the pace of library development, which were: a) the formation of the American Library Association, b) founding of the American Library Journal and c) publication of the Dewey Decimal Classification System, which greatly contributed towards standardization of library education and scholarly practices in the emerging field of library science.

4. In the mid-20th century, the advancements in computer and telecommunication technologies paved the way for further modernization of library services. The pace of library automation accelerated with the introduction of software systems capable of handling various library functions.

5. In the 1980s, with unprecedented advancements in Internet technologies, libraries added new dimensions to their services with the help of web based services. These, along with integrated library software revolutionized library services by reducing workload, enhancing user satisfaction and increasing productivity.

6. With massive proliferation of electronic documents, the digital library initiatives strengthened, impacting libraries all over the world. Increasing affordability of technology helped modernization of libraries in the developing world.

7. In the first decade of the 21st century, with the growing popularity of Web 2.0 phenomenon, libraries stepped-up their services with the introduction of virtual reference and other Web 2.0 services. Libraries focused on cost-effective and innovative service models, network and partnership building and diversification of services as a result of increasing cost of information materials, changing user demands and unprecedented proliferation of electronic materials (Building Future 2004, Miller 2010).

8. Revolutionary new ideas concerning the role of libraries in the knowledge society resulted in the introduction of new services, including community based and educational services. The idea of the library as a "hub for community well-being" was popularized in the developed world (Arup University 2015). Libraries' role in information literacy, knowledge management, counseling and social advocacy also became more and more important.

The present society, dubbed as the 'information society' by leading sociologists and technology specialists, calls for the use of information in diversified ways in various spheres of life. Library and information professionals are therefore trying to devise new ways of providing information to the larger cross-sections of people. In this effort, they are trying to transform themselves from mere storehouse of knowledge to dynamic learning spaces, in other words, from a collection-focused mindset to one focused on connections, i.e. connecting people with knowledge, ideas, information resources and other people from all across the globe (Latimer 2011). A report commissioned by the Netherlands Institute for Public Libraries, while commenting on the changing roles of libraries, noted, 'In a modern network society, reading and learning will be increasingly influenced by, or even part of, social processes. Rapidly-developing information and communication technologies will also make it easier to ask questions of and share information with other members of the community. The library of the future will therefore need to focus more on creating, stimulating and facilitating useful connections (Netherlands Institute for Public Libraries, 2014).' This increasing role of libraries as 'connectors', rather than 'collectors' is receiving a lot of attention in the midst of changing conceptions regarding libraries and their roles in the future society.

Changing Roles of Modern Libraries

The most important activity of the ancient libraries was building collection. Later, with the expansion of collection, came the second activity: organization, which necessitated the use of methods like cataloguing, classification, indexing, abstracting and so on. The third major activity to be added subsequently was: services – which transformed the libraries from mere storehouse of books to a vibrant provider of knowledge and information services (Tyckoson, 1999). These three functions constitute the cornerstone of libraries - keeping them active over the centuries as people sought information and inspiration from libraries as they built and sustained civilizations. This is only in the later parts of the 20th century that these traditional roles of libraries came under serious scrutiny. This does not

necessarily mean that the fundamental roles or the very existence of libraries is under threat, but it does calls for serious soul-searching by library professionals and enthusiasts alike, because in order for libraries to continue their place in the society, they must re-define the sphere of their functions and utility.

This goes without saying that, as social organizations, the first and foremost responsibility of the libraries is to meet the demands of the society. In that, the roles of libraries are inter-related to the roles of other social organizations like schools, colleges and universities, financial organizations, families and so on. Reith (1984) distinguishes the classical social roles of libraries as follows:

1. *Repository role:* storage and management of documents,
2. *Information role:* dispersion of collected data;
3. *Educational role:* facilitating formal and informal learning;
4. *Social advocacy role:* dispersion of library's resources in the society;

Since the late 20th century, with the advent of a whole range of information and communication technologies, libraries felt a need to change their focus by making room for digital collections and services. The technological events that ushered in a new era in the libraries are:

1. The growth of Internet, especially the popularity of the World Wide Web as a key service of Internet.
2. The emergence of Integrated Library Software that could meet all the needs of a library - replacing stand alone library software that could be used for only one or two dedicated purposes.
3. Proliferation of digital/electronic materials and e-books.
4. Replacement of print journals by electronic journals, saving space and money of the libraries.
5. Increasing use of computers and local area networks in the libraries.
6. Use of social media and social networking services in the library like Facebook, Twitter, blogging, podcasting, etc.

However, the widespread use of various technologies in the libraries had an interesting implication. While many pundits predicted the gradual decline and eventual demise of libraries with the emergence of new technologies, the reality was completely different. Although many libraries were forced to implement budget and manpower cuts, they also embraced technologies as a tool for improving the standard of their services. So, technology, instead of dealing a death blow to the libraries, in fact helped libraries become more effective and efficient. Freeman (2014) remarks, 'Rather than threatening the traditional concept of the library, the integration of new information technology has actually

become the catalyst that transforms the library into a more vital and critical intellectual center of life at colleges and universities today.'

In their attempt to effectively function in the changed reality, libraries all over the world are assuming new roles and responsibilities. The key determinants of this move are:

    i)   the socio-economic-cultural settings in which they operate

    ii) the changing needs of their clientele

    iii) the long term mission and vision of libraries and their parent institutions

    iv) technological innovations taking place in the library arena

    v) changes occurring in information materials and media

Different libraries are trying to cope with the changing realities in different ways. Researchers and specialists are trying to find out a pattern in these changes, as this will help library and information practitioners identify sustainable solutions to the emerging problems. Jochumsen, Rasmussen and Skot-Hansen (2012), while discussing the changing roles of public libraries in the 21st century, argued that libraries are now working in four different spaces, namely: a) *the information space*, which gives users meaningful experience by providing required information; b) *the learning space*, that enables readers to experience discovery and new learning; c) *the meeting space*, that is based on the users' participation in group activities with other members of the society, and d) *the performative space*, that acts as avenue for the users' own creative activities and sharing those activities with others.

A report published by an organization called Building Futures in collaboration with the Museum, Libraries and Archives Council of the Government of the United Kingdom, commented that, modern libraries must create a virtuous cycle by striking the right equilibrium between four key factors:

    i)   the people for whom the library service is intended (along with the staff providing the service);

    ii) the programme of services, events and activities required to fulfill that obligation;

    iii) the partners with whom the library authority might wish to undertake a joint development or venture; and

    iv) the place of the library itself, along with the spaces it offers to meet its designated programme most efficiently and effectively (Building Future, 2004).

Roberts (2012) argued that, libraries of the 21st centuries are characterized by some major trends that are likely to dominate the library space in the coming

decades. Foremost of these trends is the growing availability e-books and their successors like graphic novels and apps. These materials are particularly appealing to young people who like to think visually and learn through playing. Other trends identified by Roberts are: private publishing (books produced and published personally without the involvement of an established publisher), a transformation from consumption to creation (where libraries are used as places where people gather and learn from each other and then use new skills), promoting collections that emphasize creative content and open data (helping people to interpret information and to re-interpret it) and media education (librarians working with partners to create trusted search mechanism for selected topics).

The Way Forward: How Libraries Could Cope with the Changing Times
In spite of all the changes happening in the library and information sector, they continue to act as providers of information and knowledge and thereby fulfilling a major social purpose. However, as the foregoing discussions have showed, libraries cannot expect to function in the same way they have been doing since millennia, nor can they take their place in the society for granted. If they are to continue operating as a key social institution in the tumultuous times ahead, they must reposition themselves by making drastic changes in their activities, collections and modus operandi (Troll, 2002).

Many authors have tried to identify ways in which libraries could make themselves more relevant to the ever-changing needs of their current and prospective clients. Admittedly, because of the basic socio-economic and cultural differences in the contexts of developing and developed world, there is no one-size-fit-all model for improving and upgrading the library services all over the world. What works perfectly for a library in a developed country may not work at all for a country situated in a developing country. Therefore, they need to come up with sustainable and locally viable ways for making their services resonate with the local clients. This calls for a review of their roles, increasing community involvement, constant assessment of the changing needs of the society as well as an open mind and a flexible attitude. The ongoing wave of globalization has had a major impact on the libraries. Libraries need to comprehend these impacts and act accordingly, so that they can still attract the next generation of users. This calls for more involvement with the communities they serve and an alertness to "feel the pulse" of their clients and other social actors.

Based on the foregoing analysis, we can identify the major components of a viable library service model that can help libraries cope with the changing demands from an ever-growing and diversified user base. These components and

their expected outcomes, along with the issues that influence changes in the 21st century libraries could be presented in the form of the following diagram. This diagram is a result of the analysis of relevant literature discussed above, as well as research on library service models undertaken by Research Libraries UK (2011), Hunting, Ryan and Dowler (2015) and Connaway (2015).
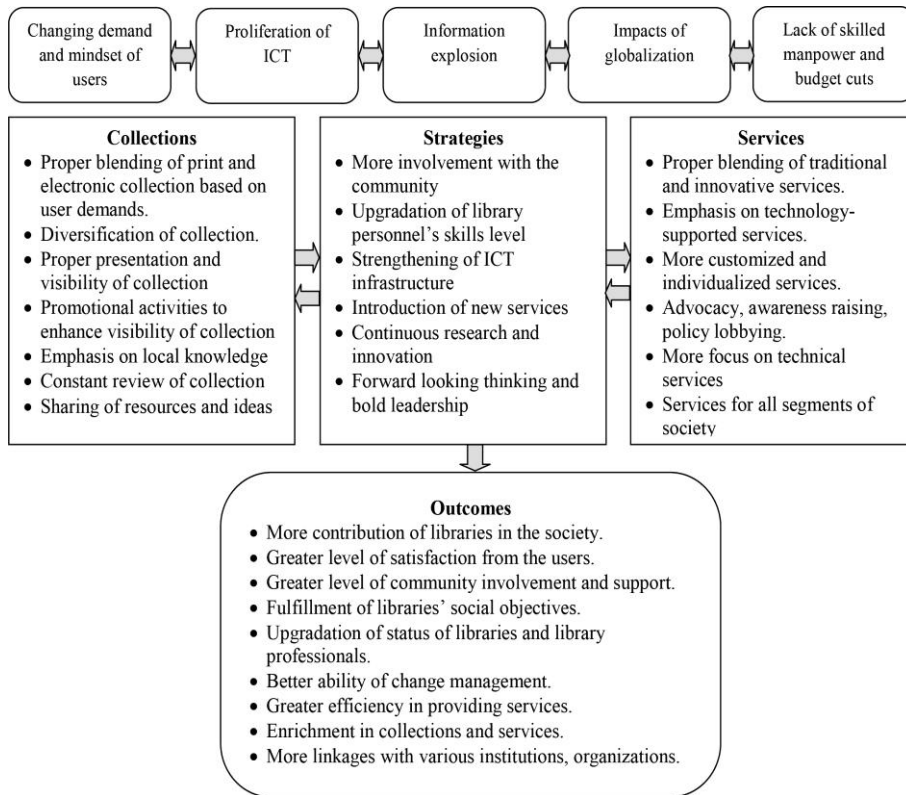

Figure 1 - Redesigning 21st century libraries: influencing factors, necessary inputs and potential outcomes

The diagram (Figure-1) includes four critical components of the changing library landscape: a) the factors that are influencing library development in the modern times, b) the changes that are happening in terms of collections and services, c) the strategies being followed for improving library functions, collections and services, and d) the outcomes of these changes. It indicates that, libraries are in a state of constant changes due to changing demand and mindset of the users,

information explosion, advancements in ICT and so on. The combined effect of these factors result in changing strategies, collections and services of the libraries – which are aimed at helping libraries adapt with the changing times. Libraries of the 21st century are getting more involved in the lives of their communities and are upgrading their services and skills levels of the library personnel in an attempt to stay relevant to the evolving knowledge society. As a result of that, they are being able to make some significant outcomes, which include, among others, fulfilling their social objectives, ensuring user satisfaction and better ability to manage changes.

In the light of the above diagram, the following recommendations can be made for helping libraries cope with the changing times:

1. The library and information professionals need to upgrade their skills and expertise in order to serve the users in a better and more effective way. They should equip themselves not only with ICT skills, but also with a deep understanding of the changes happening in other sectors as a result of globalization.

2. The libraries should regularly evaluate and re-design their services in an attempt to keep abreast of the changing demands of the users. Many libraries in the developed countries are providing innovative services like literacy campaign, advisory and consultancy services, technology and communications services etc. in response to the requirements of their users.

3. Libraries need to strengthen their ICT infrastructure as new tools and technologies are considered vital for increasing the libraries' appeal to the younger generations. Modern libraries use an array of new technologies like social networking, video conferencing, podcasting, blogging, etc. for making their services available to users from various geographic locations.

4. Libraries need to carry out outreach programmes in order to expand their scope of services. They should design new services for people living in remote and inaccessible areas and strive to make their services available to people who usually receive less coverage by traditional library services. Initiatives like mobile libraries, *infomediary* (information intermediaries), information brokers, etc. will help libraries strengthen their outreach activities.

5. Libraries should accelerate the pace of social engagement through various innovative activities like knowledge fair, author-reader meeting,

book-talk, exhibition etc. They should also carry out social awareness raising and advocacy campaigns to increase reading habit in the society.

6. Libraries need to constantly review their collections and services so that they can better reflect the changing expectations of the users. Wasting valuable space and resources for a collection that is hardly used by the users is unadvisable. Equipping the collection with newly published materials, both print and electronic, and diversifying the contents will increase the library's appeal to the existing and potential readers.

7. In addition to managing information in their various forms, libraries need to extend their focus on knowledge management as well, which has emerged as a new phenomenon not only in the field of library and information studies, but also in the fields of business, computer science and communication, among others. Library professionals need to strengthen their knowledge management skills so that they can make the libraries an effective partner in knowledge management and undertake cross-domain functions.

8. One of the major trends in the library and information sector is 'information literacy', which is an umbrella term to denote capabilities for searching, retrieving, evaluating, sharing and applying information from various sources. Libraries need to strengthen their information literacy campaigns by building strategic relationships with educational and research organizations, which will give the libraries an added advantage in getting more involved with the communities they serve.

9. With the rising cost of products and services, libraries should always be on the lookout for saving cost. Many libraries even in the developed world have been struggling to cope with budget cuts resulting from global financial crisis. Therefore, libraries have to devise ways and means to maximize their services with less expenditure and fewer staff. This calls for more research initiatives on the part of the libraries.

Conclusion

The fact that libraries have changed irrevocably in the last few decades is undeniable. But the foregoing discussions have made it clear that libraries can cope with these changes by constantly reviewing and redesigning their roles, functions and contributions and can secure a strong position in this ever changing society. Contrary to popular belief, technology has not made libraries obsolete, rather it has helped libraries better serve their clientele by providing new and innovative services. Even in developing countries like Bangladesh, the initiatives

like rural information centres and telecenters have added a new dimension to the ongoing library movement, which aims to broaden the libraries' appeal to new, particularly young readers. If the libraries could redesign their services by following the recommendations laid out in this paper, it is hoped that they will be able to stay relevant to an increasing number of people in the evolving knowledge society.

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