Research Article

ADOPTION OF ICT FOR LIBRARY INFORMATION SERVICES AND CHALLENGES FOR LIBRARY PROFESSIONALS

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A R T I C L E   I N F O

A B S T R A C T

In this age of Information and communication Technology, a lot of changes has occurred in library and information services and also affect the role of library professionals. With Internet connections across the world, user doesn't want to access traditional library services. Today it is beyond the working ability of any librarian to satisfy the information needs of users without using information and communication Technologies. Librarians have assumed the role of educator to teach users how to find information both in the library and over networks.

INTRODUCTION

As the information and communication technologies are changing day-today, the information society is becoming more complex, competitive and dependent on technological changes. The need of user are also growing and changing and providing new opportunities and challenges for both library and library professional. Library has changed from traditional closed access library to digital and virtual library. The emerging challenges of technology require librarians to change their role from traditional armchair librarians to thoroughbred cybrarian or information scientist

Changing Role of Libraries

Traditional Library: Traditional library as a store house of print documents such as books, journals, theses, magazines, newspapers etc. The library users had to visit the library physically to access this document and libraries were prepared various tools and guides to locate these resources.

Automated Library: Library automation refers to the use of computer to automate the routine wok of libraries for housekeeping operations like acquisition, cataloguing and circulation, Management support activities, library networking, printing of catalogue cards. .Automation is a process of using the machinery for easily working and saving the man power and time. Libraries have taken advantages of the computers to provide a wide range of services and products.

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It refers to the use of computer in the routine and important services of a library. With the help of library automation, library networks and resource sharing programmes have been developed.

Digital Library: A digital library is a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. It is a collection of digital objects that can include text, visual material, audio material, video material, stored as electronic media formats, along with means for organizing, storing, and retrieving the files and media contained in the library collection.

The Function of Digital Library are to access to large amounts of information to users wherever they are and whenever they need it support multimedia content along with text, Integration with other digital libraries, user friendly interface.

There are at least two ways of developing a digital library: converting a traditional library into a digital library, and direct create of a digital library. The main reason for development of a Digital Library are unlimited storage space at a much lower cost, No physical boundary, Multiple access, Enhanced information retrieval, universal accessibility (Malhotra,2014)

Virtual Library: Virtual Library simply defined as the Internet based Digital Library or a Library without walls. Access to electronic information in a variety of remote locations through a local online catalogue or other gateway, such as the internet .Virtual Library as " a set of services that gives customers the knowledge they need to make the highest quality decisions in the least amount of time" The concept of Virtual Library is that any person who has a computer and connection to the

Library networks can access the resources of that library and also variety of information available through National and International Networks like Internet and Intranet without physically present in library. (Kaliammal,2004)

Modern Library Services

OPAC

Gone are the days of searching through endless drawers of the card catalogue, trying to perform cross-references on a topic through different subject-headings typed on index cards. OPAC as an acronym for online Public Access Catalogue, a database of bibliographic records of books and other materials of a library. Keyword searching, with its use of Boolean operators, was introduced, thus increasing the number of access points available for searching. Web OPAC is an OPAC, which is provided on the web and with the help of internet anybody can access it from anywhere. OPAC and Web OPAC are same in some aspects like searching and browsing in both the cases provides pre-coordinated as well as post-coordinated phrases options. OPAC (LAN/Intranet) usage is limited, only the persons in LAN can use it. In web opac,the usage is global, a person can access it from anywhere. Users have to follow the program of the particular OPAC software in that library. Web OPAC, html files are used which hyperlink to the subject areas or disciplines. (Hussain,2006)

Social Catalogues

A social cataloguing is a web application designed to help users to catalog things-books, CDs, etc.-owned or otherwise of interest to them. social cataloguing allow(s) members to not only share publicly their catalogued inventories, but also post reviews and commentaries on the items posted, create and participate in discussion groups, and tag or classify the items catalogued. In other words, these sites serve as a user-designed, interactive, and shared catalog.

Social cataloging is very useful for librarians because it allows them to embrace their natural cataloging tendencies as they can organize and keep track of their book collection and what they have read. It is also helpful in collection development as most websites include reviews for books and in-depth summaries which librarians making purchasing decisions. Finally, it is a useful reader advisory tool because librarians can see what readers liked reading as well as connect with their users to recommend books.

Social cataloguing refers to a kind of social networking site where crowdsourced content, commentaries about books and reviews of reading materials found in library collections are shared.

Some notable social cataloguing sites are

- **aNobii http://www.anobii.com/** - share titles, recommendations and reviews. Build a virtual bookshelf by entering ISBN or book title, import lists from LibraryThing, Amazon, Excel spreadsheets. 400,000 members, available in 16 languages with data for 12 million books; even an iPhone app.
- **GoodReads http://www.goodreads.com/** -Established in 2006, GoodReads now has over 2 million users and 50 million items listed. There is a facebook widget; no fees.
- **Google Books MyLibrary** - http://books.google.com/googlebooks/mylibrary/

- **LibraryThing http://www.librarything.com/** users are thingamabrarians and post reading lists, book reviews and chat to other users. You can use the Dewey Decimal Classification System or the Library of Congress system to list your books; privately or publicly. 850,000 users and ~44 million books catalogued.
- (http://hlwiki.slais.ubc.ca/index.php/Social_cataloguing)

Institutional repository

An institutional repository is a new concept for collecting, preserving, and disseminating of the intellectual output of an institution, particularly a academic institution. For a academic institution, this would include materials such as research articles, before (preprints) and after (post prints) undergoing peer review, and digital versions of theses and dissertations, others such as administrative documents, course notes, or learning objects.

The four main objectives for having an institutional repository are: to provide freely access to institutional research output by self-archiving it; create global visibility for an institution's scholarly research; to collect content in a single location; to store and preserve other digital assets, including unpublished or grey literature (e.g., theses or technical reports). For creation of institutional repositories so many open source software like Dspace, Eprints, fedora, Greenstone is available today. (Karmakar,2010)

Libraries have always been engaged in managing their institutional collections, expertise in collection assessment, organization and development. The libraries have a key role to play in building IR's. The libraries involve in developing IR's and serve as a collaborator in research, teaching and learning.

- Negotiating with publishers on behalf of faculty or asking faculty to retain the right to publish in IRs as well as in scholarly publications; and
- IR's allow libraries to provide direct access to scholarly materials instead of through the systems of journals publishers and vendors.
- The biggest challenge of the IR appears to be generating contents for it. Libraries should take necessary steps for promoting IR resources. The librarians have to become marketing specialists to popularize IR.
- Committing to an institutional repository requires libraries to carefully consider the implications of paradigm shift from the traditional role to a more practical and enriched institutional landscape.(Vishala,2007)

RFID

RFID refers to small electronic devices that consist of a small chip and an antenna. Radio-Frequency Identification (RFID) is the use of radio waves to read and capture information stored on a tag attached to an object. Some RFID tags can be read from up to several feet away and does not need to be within direct line-of-sight of the reader to be tracked. It is a data collection and storage technology that uses radio waves to automatically identify reading materials that are within a given range.

RFID (Radio frequency Identification) systems have been use in libraries for different purposes like anti-theft control, book identification, self checkout, for inventory control, and for sorting and rectification of library documents.

RFID is a combination of radio frequency and microchip technology. They can be added every kind of document and can be read and updated from a distance.

The information contained on microchip in the tags added to every kind of library materials. . The tag consists of an etched antenna and a tiny chip which stores vital bibliographic data including a accession number to identify each item. These smart labels are applied directly on library books and can be read with an RFID scanner.

It provides a contact less data link, without the need for line of sight, for example, the documents in the shelves or cardboard boxes can be checked without removing or opening. RFID-based systems have been implemented for document tracking purpose through out the libraries that combine, easier and faster charging and discharging of materials, security of materials, inventorying, stock verification and shelf handling. (Narayanan(,n.d)

Virtual Reference Service

Virtual Reference Service is provided on internet with the help of other tools of information technology to users. It allows librarians and users to communicate with each other in real time through the internet by e-mail, chat or instant messaging.

In E-mail reference, the users send their queries to the librarian's account by e- mail. A user will receive the answer of the query within hours depending upon library to library. In some questions may require further consultation by telephone or in-person.

Chat reference is an online reference service between the user and staff. It is a two way conversation like talking to a reference librarian in person. They can use written language in the same manner used in a person to person conversation. (Abbas,2014)

Library 2.0

Library 2.0 is simply known as web 2.0 applications in Libraries (web 2.0+ Library= Library 2.0).Library 2.0" as "the application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections. The first generation of online library instruction (Libray 1.0) was provided via text-based tutorials that are static and do not respond to users' needs nor allow users to interact with one another. But in Library 2.0, the online services are more interactive, media-rich tutorials, using animation programming and more sophisticated database quizzes. Web 2.0 technologies like RSS, wikis, Weblogs, social networking sites were used by librarians.

Wikis are open web-pages, anyone registered with the wiki can publish to it, amend it, and change it. The libraries may create a wiki where users may be allowed to create content on various educational aspects the wikis should be used by the Libraries for creating an online collaborative group in which the students, staff, teachers may interact with one another. These (wikis) may help the library staff in keeping constant track of the users' feedback.

Weblogs is a personal journalor personal diaries published on the Web. A weblog, or blog for short, can take many forms. Weblogs both of personal and institutional library weblogs. This is mainly used as a platform for delivering library news

and also an open discussion forum that library patrons use to interact with library personnel and other users.

RSS (Really Simple Syndication) is a method by which web content can be easily and quickly distributed when it is changed or newly entered into a web site or web log. Most blogs automatically include an RSS feed. RSS technology is widely used by libraries. Librarians use the RSS service to inform their users of library news, changes to the library's schedule, new acquisitions, library renovations, exhibitions, etc. Librarians maintain their websites for providing information about library services, new additions, announcements and other information tools like OPAC. Librarian create RSS feed to a library card account for hold notifications and overdue materials. RSS feed use for new programs and events posted on the library website; for library's electronic newsletter, for press releases and other media advisories; for library closings, including emergency closings, for library job openings.

Librarians used social networking tools like face book,twitter for promotion of library events (e.g. exhibitions, competitions, talks, seminars, workshops, tutorials, training courses) and dissemination of news (e.g. events alert, library updates) offer library resources (including answer enquiries, catalogue search), to release information about new collections and lists, to convey general library information and to offer online resources. Social networking tools were also used for quick spread of information. (Maness,2006)

Challenges for Library Professionals

Role of library professionals is always important in traditional as well as digital library. Traditional library professionals follow the manual system and carrying out the house keeping tasks of the library like acquisition, classification, cataloguing. Librarian alsogive reference service, current awareness service and help the users to find their information. But now the concept was totally change, libraries changed into digital library and demand for a digital librarian. It is transforming the traditional armchair librarians to thoroughbred information professionals who provide information to users in different locations. In digital era, Librarians/Information professionals should be well equipped with new inventions in the field of Information and Communication technology. Today, Information profession is the profession of mixtures of various professional like as engineering, communication, computer, electronics and other fields. Librarians have to harmonize with other professionals for developing new technologies in their profession to provide better information in effective and speedy way.

With the advent of both of information and communication technologies and global competition, the scenario for libraries is changing fast. Library professionals are faced the following challenges in building digital collection and disseminating digital information such as lack of ICT infrastructure; lack of IT trained manpower, growth of new generation of learners, Growth of web resources, Technology challenges, Organizational Structure, Preservation / archiving of digital e-resources. (Suthar,2001)

The challenges in the context of collection development poor infrastructure facilities of libraries to access e-resources-Most of the libraries in India run with poor infrastructure facilities like number of computers and other ICTdevices .

This creates problems for LIS professionals to provide good services to the users.

Selection of e resources-The selection of e resources is becoming a difficult task for LIS professionals due to tremendous increase of e resources.

Unfair marketing policy of the e-resource publishers/aggregators

It has been a common phenomenon for every publishers and vendors to market their products (e resources) in bundle by which they compel libraries to subscribe useless e-resources along with some useful resources. Most of the publishers market their products through aggregators which creates confusion on pricing structure. Also some lucrative offers such as provision of complimentary access subscribe one and get one, two or free etc to market the less used products create problems in subscribing right e-resources.

Poor role of Library consortia

Large numbers of library consortia are available such as UGC –infonet, INDEST, AICTE, IIM consortium etc. Some of the consortia are not working properly. It has no control over the price of e-resources since it is increasing year by year. It not covers the e-resources of all the subjects.

Lack of autonomy in decision making process

It is a common practice in every libraries that libraries are headed by Professor-in charge or chairman, who leaving very limited autonomy for library professionals to take decisions. Also procurement of Library resources including e-resources are made by head of various departments and not by the library professionals.

Regular increase in the price of e-resources

Price of the e-resources increasing year after year. It also creates problems for library professionals to accommodate more e-resources within the limited budget of libraries.

Conflict with other departments

The growth of e-resources in libraries creates unnecessary conflict between the libraries and other departments specially IT/computer science departments. The main reason of conflict is that the IT professionals do not want to recognition to LIS professionals as knowledgeable persons to handle the e-resources perfectly. (satapathy, 2013)

CONCLUSION

With the development of ICT, The traditional closed access libraries are shifting towards to digital and virtual library. This is known as library transfer from brick to click. Library and Information professionals should be change himself and well informed on new development in ICT. Librarians must develop their knowledge with skill of IT knowledge. They can build a good digital library and provide quality digital information service to the users.

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