

DIGITAL SHIFT AND LIBRARIES

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DIGITAL SHIFT AND LIBRARIES: Edited By: **Prof. P.G.Tadasad**, Professor and Chairperson, Dept. of Library and Information, KSWUB; Published by: **Dr.Onkar Kakade**, Director, **Prasaranga**, Karnataka State Women's University, BIJAPUR- 586108; Telephone: 08352-229010.

Size : 1/8 Demy
Pages : ii + xii + 288
Paper Used : 80 GSM Maplitho
Copyright : Registrar
First Published : 2014
Price : Rs. 210/-
ISBN : 978-93-83090-17-4

Cover page and
Inside Pages Design : **Mahesh Sarode**

Publisher : **Dr. Onkar Kakade**
Director, PRSARANGA,
Karnataka State Women's
Univeristy, BIJAPUR- 586108;
Karnataka State, India.
Telephone: 08352-229010

Printer : **Sneha Printers, Bangalore.**

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ADAPTING TO THE REVOLUTION: RE-INVENTING THE LIBRARY HOUSE-KEEPING ACTIVITIES AND SERVICES



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1. Introduction:

Libraries as institutions of *information transfer* have changed leaps and bounds over decades. The journey from store house of knowledge, where the main function was to preserve the books than use, to the modern libraries where the emphasis is on *maximum use of the resources* has been a steady one. Over the last decade, with the advent of *computers and information communication technologies*, the libraries have been facing a huge shift. In this era we see hybrid libraries which have both print and digital resources. Libraries use different technologies to *render their services*. Existing technologies are also undergoing continuous change and libraries are making use of

these changing technologies to handle information and to give better services. ICT has impacted to a great extent the way libraries access, acquire, store, organize and disseminate information. Routine housekeeping operations of the library like acquisition, serial control, cataloguing and circulation are some areas where the impact of modern technology is felt the most.

All the planning and designing of infrastructure of the traditional library was done with preservation and security of materials in mind. But that is not the case now. Use of digital information is gaining popularity everywhere. The present library has to make provisions to accommodate new formats of information and the technologies that organize and store this information. They have to take into consideration the ways in which information is accessed and used today. Library practices have shifted from procuring material and offering services to managing the world of digital information along with the print collection. The emphasis is shifted ownership to access of information.

This article reviews the scenario by looking into the various activities of libraries making them functional and evaluates whether we have adapted to the changes happening around us.

2. Housekeeping Operations:

Collection Development process in a library is a host of activities incorporating the functions like the selection, acquisition, circulation, cataloguing and serial control. Let us see what changes have happened in the various facets of Collection Development one by one.

2.1 Acquisition:

There is deluge of new titles that are coming into the market every day. Firstly libraries need to have a strategy of discovering new books that are coming into market. Earlier it was considered as just publisher's job to make librarians and users aware of the availability of new titles. But the huge volume of information products that gets published makes it impossible for us to choose the right book worth the money spent.

We have changed our strategy of traditional book selection methods. Libraries are resorting to the following methods for selection of books.

- Selection of books from online markets like Amazon.com
- Selecting books from e-mail /online catalogues
- Recommendations received from users through online facilities attached to Integrated Library Management Softwares.

We have to add digital resources like e-books, online databases archival collections etc to the resources of the library. These require the purchasing of licenses and subscriptions. Librarians in India have started adjusting to this scenario extremely well. Consortia approaches have helped libraries in acquiring huge amount of digital resources on negotiated pricings.

Libraries have also started placing orders for books through online facilities. Hence acquisitions in the libraries can be said to have adapted to the changes.

2.2 Circulation:

This section is a hub of all library activities. Most users of a library visit this section some or the other time to borrow books on loan. Many activities of the library like the registration of members, renewal of membership, issue and return of books, sending reminders etc happen in this section. The use of Integrated Library management Systems like the KOHA and NewGenlib has changed all these into automated processes.

The time taken for issue and return of books got reduced to quiet an extent at the counters and now you cannot find any rush at the library counters. The automation of library counters started with the use of ILMS modules for charging and discharging. Initially in automated systems the data entry was done manually for issue and return. But bar-coding technology has eased the procedure further.

A step ahead was the use of RFID (Radio Frequency Identification) tags. This technology brought more security to the collection. Issue systems using RFID Scanners, Self Issue counters and Drop boxes to return books were revolutionary changes in the library counters and they have made the process simpler and easy. As RFID technology costs heavily, it remains an expensive proposal for Indian libraries to adopt. However modern libraries are marching towards these changes slowly but steadily.

2.3 Library index:

Catalogues are considered as mirror of any library and it is the link between the users and the collection of the library. This index satisfies all approaches of a user for a document, even

though the documents are arranged in a single order. Card catalogue was a common feature in most of the libraries till recently. It helps in acquisition of materials by avoiding duplication. Catalogues are considered as an important tool even today, and only change happened is in its avatar.

Initially the library indices in digital format were available only in local machines. But the web technology supported with databases gave way to OPACs (Online Public Access Catalogues). These are indices to the library collection available online. You can search it anywhere from the globe. Such OPACs have become common feature of modern libraries. An OPAC on the web helps the user to access the index of the library from anywhere and can reserve or renew a book. OPAC is generally found integrated with the Circulation transactions and hence a search through the index helps the user to identify whether a book is issued or available on the library shelves. A document can be searched by author, title, subject or keywords using Boolean logic and truncation.

2.3.1. Copy cataloguing:

Another important facility available for library due to the Internet technology is the facility to copy catalogue records from one database to another. This helps the library in saving lot of human hours in data entry. KOHA, NewGenLib and other proprietary Integrated Library management Softwares have this facility. As records are in MARC format the catalogue records can be easily copied. This process is called copy cataloguing. OCLC and Library of Congress catalogues are such databases which we can depend on copy cataloguing.

2.3.2 Discovery Services:

If you open and see the website of a library, you can find several links to the resources of the library listed separately. This includes the OPAC (Online Public Access Catalogue), Links to the publishers and aggregators of e-journals and e-books. More enthusiastic librarians have added links to the various open resources like the DOAJ (Directory of Open Access Journals and DOAR (Directory of Open Access Repositories) in their websites. The creation of Institutional repositories by academic and research institutions made more complex possibilities of metadata sharing among libraries.

In this complex website, with numerous links a user has to search the indices of all these resources separately to find and access the content they desire. Because, all these content are indexed separately and independently. This search is quiet time consuming and unwieldy. If all these indices are consolidated at one place and allow a comprehensive search to all the resources of the library and free open access items, it will get appreciated by users who tend to engaged in "Google like" search behavior. This is made possible by Web-Scale Discovery Services.

Web-Scale Discovery Services is defined as a 'Pre-harvested Central Index coupled with a richly featured discovery layer that provides a single search across a library's local, open access and subscribed collections".

Such search mechanism started with Federated search. Web-Scale Discovery Services are different from Federated Search engines. Federated Search engines like KNimbus allows users to search the resources remotely and provide only partial or limited solutions. They do not maintain the index by themselves

to the various resources the library would like to use.

Federated searching has become an old technology which addressed meta-searching from different resources. It has the following drawbacks due to which modern libraries are moving towards Web-Scale Discovery Services.

- Federated Search take long time to search various resources and can also cause in the retrieval of wrong information due to wrong connections.
- Federated Searching has to access many indices maintained by various publishers.
- Relevancy ranking is not possible due to the absence of a proper algorithm.
- Results from a federated search are usually shallow and fetch only a few hits from various resources.
- Real time search at various sources cause heavy internet traffic, which can cause difficulties where slower connection are there.
- Federated Search mechanisms are not maintaining a centralized index.

2.4 Reference Services:

One of the important services that any library offers is Reference Service. The way library offers this service has undergone revolutionary changes during the past few years. The main task of this section in a library is to answer to the queries, provide instructions, help users to locate information, Prepare bibliographies and give guidance. While basic functions of the section remains the same, the reference tools that the library staff use and the method by which they communicate to answer the queries have changes.

Reference Section not only uses the traditional sources of information like the dictionaries, encyclopedias, maps, charts and handbooks, they also are using online information sources. The various online tools like the instant messaging, Internet Relay chatting, e-mails and video chatting are being used for reference interviews.

Library websites have become knowledge portals directing readers to the various online reference sources. Library websites have defined space on their windows where patrons can place their queries. Thus reference service has gone beyond office hours and has now become 24x7.

2.5 Preservation:

Preservation of any form of document for posterity is of paramount importance to library. Books and documents are carriers of civilization and they need to be preserved. Any loss of such material is simply irreplaceable. It is the responsibility of the library to preserve this social cultural heritage for future use. As books are used continuously, they should be maintained in good condition.

In the traditional libraries, preservation was always done in house and they had a well equipped bindery with required staff to manage the same. Preserving and protecting was considered the responsibility of libraries. Documents were bound using cloth, leather and other materials. Soon many of the libraries started outsourcing the job to experts. With the advent and profound use of digital technology preservation is going through a revolution.

The digital technology has provided us tools to create digital

surrogates of important documents and documents of archival importance. Heavy duty scanners and Digital SLR Cameras provide us high quality images which we can store in our servers and provide access to users on a global basis. This type of preservation helps in the maintenance of the original materials without people accessing the original as the copies are available online. Conversion of heavy digital files into comparatively lesser sized pdf files helps us in the transfer of digital information over the net.

2.6 Periodicals:

The impact of digital technology was most felt in the services of this section of the library. Majority of the periodical publishers changes their publications to digital publications called e-journals. They also conducted retrospective conversion of all their earlier publications to digital archives. Access to these online resources was allowed to users over IP authentication and or username and password. We the libraries are no longer owners of the items that we subscribe. Rather we are acquiring licenses to have access to the content of such databases. When libraries were inclined to subscribe these online resources serious issues of licensing came up and we gradually got adapted to the situation. Libraries were forced to develop web pages to give single spot for all the e-resources they subscribed.

2.7 User Orientation:

The onslaught of digital resources on libraries started and their existence became omnipresent, which presented a new challenge to the librarians. The users had to be given training as to how to use these digital resources. Many people were

not aware of the techniques used in searching the databases. This gave birth to the concept of Information Literacy training. This is basically educating the user on how to find information, how to get it, how to evaluate it and use it in an ethical manner. In present day libraries this sort of training has become imperative because of the huge volume of information sources and their complicated nature.

3. Libraries as publishing houses:

When there is a pragmatic solution like the Internet for anybody to publish, libraries started using it for showcasing the publications of the institutions to which the library is attached. They also started depositing the pre-prints of the articles and research reports in their online locus called the “Institutional Repository”. This has given birth to the concept of Open Access. Many new periodicals also came up providing open access to their resources.

Electronic Theses and Dissertations (ETD) collection of the libraries attached to the universities is another great innovation out of digital technology. Similar national level efforts are there to collect theses in digital format.

4. Impact on profession:

We have seen from the above discussion that the libraries have changed a lot in their functioning and infrastructure. How far the professionals adapted to these revolutionary changes or what are the areas in which they need to develop expertise are pertinent questions. Changes are happening in the profession too. Most of the library schools have updated their curriculum to suit the new developments. Hence the new

professionals are having the required expertise. However when we consider the speed at which changes are happening in technology frequent in-service courses are inevitable. They need to be given training in hardware, software and networking technologies. Many times it is essential for librarians to train themselves in various Content Management Systems too. Their expertise to describe a digital item is very important, as the users can find these items from a collection only if they are properly described using metadata. Hence using of controlled vocabulary and metadata training also becomes very much essential.

5. Conclusion:

Libraries have been affected much by the growth in digital resources. At the same time there is no decrease in the print resources. Every year more and more books are getting published. Modern libraries are libraries without walls and they are catering to the patrons who are remote. These libraries keep adding new activities while continuing with the existing ones. When most libraries bring out new services or products, they have to make a concerted effort to market and promote them. It takes time and effort to get out the message. The profession desperately needs leaders who can provide vision, enthusiasm, a willingness to take risks, and commitment to the future. The library professionals should acquire necessary skills to manage this change that is happening. Failing which the patrons will turn their back to the library because they have alternatives. It is time that we reinvent ourselves and get ourselves charged with new skills to manage this new world of information.

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