



INFORMATION COMMUNICATION TECHNOLOGY GOING ON INNOVATIVE LIBRARY SERVICES: SOME CHANGES

Chalukya B. V.

Librarian, SCS College, Omerga, Osmanabad(MS) India.

Abstract:-The Library / Educational Sector is experiencing many changes in the way different services are offered and undertaken and is continually seeking to improve customer care whilst containing costs. Now, more and more mobile libraries / educational centres are deploying wireless and mobile technology integration, including seamless roaming capabilities as part of their long term strategy; to ensure quality and continuity of customer care at lower costs. Today Librarians and information professionals face a challenging to provide better and innovative services to user community. Their work environment is change in the organizational, technological and information management environment. In their professional work, they have to keep up with new technologies and systems, new forms of information, information media and information sources, and new tasks and roles. They have to navigate the complex social, political and cultural environments of their parent institution, with communication tools skills. They have to constantly put their services, and demonstrate their values to knowledge resource center management.

Keywords:RFID; Electronic Library, ICT, Wi Fi, SMS, e group, Web portal, Bluetooth Social Networking Sites, Information kiosks, etc.

1.INTRODUCTION

The adoption of mobile applications and wireless technology is providing a powerful solution to mobile libraries. By implementing real-time data access it is bringing instant, up-to-date information and improving productivity throughout the library organization by improving communications. Recent development in information technology forced a tradition to new method of operation for Libraries. Earlier the library professions were considered as the custodian of books. Today library professionals are known as information scientist. Present rapid development in communication system and recent innovation in technology witnessed a changing emphasis in the role of information age and its management. The changes are occurring at such a fast pace that each day new skills and approaches are required to handle information and unfurl the new ideas. The professional degrees in library and information science is not sufficient to maintain a good library. Because, now a days libraries are deeply engaged to modernize their operations and activities to provide fast, integrated, interactive and comprehensive services to their user community. There is demand for librarians having multidimensional aptitude in the areas of technical work, administrative work and also in providing user oriented services along with soft skills. Like any other profession, the technological skills are required in day-to-day working for carrying out routine jobs more effectively. The librarians working in large organizations like corporate offices are already practicing these skills through by experience or getting training from computer professionals. This paper made an attempt to analysis the various innovative services through the Information Communication Technology tools.

OBJECTIVES:

The following objectives of the study are:

- To identify changing scenario in the library

- To ICT tools used in the library for providing services to the users
- To identify federated search tools over the Internet

REVIEW OF LITERATURE:

Dickson and Holley (2010) reviewed the literature on the use of social networking tools in American academic libraries from 2006 to 2009, acknowledging that their research was limited by the absence of statistical analysis of the effectiveness of social networking and a possible shift in the popularity of these services. They identified several well-founded concerns about the use of social networking sites by academic libraries: they are time-consuming, they are not heavily used, and users already have a negative view of them. Nesta and Mi (2011) are among the few who place the next generation library services in a historical perspective. This paper analyzed the highlights definition, purpose of the study, groups available over the internet and features of the forum, the number of members, the mode of hosting the messages among LIS forum. All the LIS Forum is raising day by day and its members are adding new members. The application of computer and networking technologies has improved the efficiency of library services.

ROLE OF COMMUNICATION TECHNOLOGY:

Communication technology has been growing at a pace faster than that seen in the performance of microprocessors. Communication has entered into our daily lives in so many different forms, that it is very difficult to lead a life without the various appliances, gadgets and tools that are born out of the world of communication. Communication is just not a part of our lives, but is slowly and steadily growing to engulf our entire life. The application of modern communications technology in the academic libraries are made more near to the library professionals as it gives the users some new services. Due to improved communications and networking facilities, the academic library users are much aware of online database and other information services. Information and communication technology are providing the library professional with new opportunities to improve their sources and services. The recent developments are made available to them precisely and currently in the academic libraries. Academic library and information centers with the intensive use of electronic systems and networks have traditional libraries to become modern libraries which aim to facilitate access to information just in time to the critical want of the users. The impacts of ICT on library activities change the types of services and resources available in libraries. Good communication skills also require understanding people, self-confidence. With this one can achieve a lot and solve problems too. The communication tools will make the following positive changes.

- ❖ Create welcoming spaces
- ❖ dealing with a range of users
- ❖ interaction between technical & public service professionals
- ❖ interpersonal skills
- ❖ To strengthen the negotiation skills
- ❖ Improve the oral and written communication
- ❖ Develop presentation skills
- ❖ Maintain public and inter-personal communication
- ❖ Create public relations
- ❖ to lead a teamwork
- ❖ verbal and non-verbal cues/communication

The changing perception of users and the technological advancement have forced the library and information professionals to enhance their knowledge and acquire new competencies, skills and develop themselves in accordance to the new environment to avoid becoming obsolete and outdated. Thus, it has transition or paradigm shift in traditional to ICT skills and environment.

Table 1: Traditional Environment Vs Electronic Environment

Sl.No.	Traditional Environment	Electronic Environment
1	Reading	Browsing, E-Book
2	Ordering, Billing, Invoicing	E-Commerce
3	Writing/Printing	Web Publishing
4	Document Delivery	E-Prints, Attachment, Scanned Images
5	Inter Library Loan	Consortia
6	Literature Search	CD-ROM and Internet Search
7	Resource Sharing	Networking
8	Classification	Subject Directories, Subject Gateways
9	Indexing System	Search Strategies
10	Cataloguing	Web OPAC, Online catalog
11	Reference Service	e-mail reference and real-time virtual reference
12	Reservation	Online Reservation
13	Circulations	online access to e-books; online renewal

Innovative Library Services with Information Communication Technology:

Wireless networking

Wireless network components can be set up anywhere in the library. Wireless networking is more flexible than wired networking. It provides all the functionality of wired networking, without the physical constraints of the wire. Installation of wireless network is very easy because there are no wires. When connected to the library wireless network, users can use their laptops, computers, handheld devices, or web-enabled pages or phones to check e-mail connection. Users can use this facility for reading E-mails through Wi-Fi accessing online library catalogues, searching information through web, and live online reference. It provides faster access to information for library users, resulting in better service and improved user satisfaction in libraries.

RFID Technology in Libraries

RFID is a combination of radio-frequency-based technology and microchip technology. The information contained on microchips in the tags affixed to library materials is read using radio frequency technology regardless of item orientation or alignment (i.e., the technology does not require line-of-sight or a fixed plane to read tags as do traditional theft detection systems) and distance from the item is not a critical factor except in the case of extra-wide exit gates. The corridors at the building exit(s) can be as wide as four feet because the tags can be read at a distance of up to two feet by each of two parallel exit sensors. [The devices used for circulation and inventorying are usually called "readers" while the ones used at building exits are usually called "sensors."]. RFID technology in libraries is accompanied with improvements in productivity, better levels of service to patrons, effectiveness of self-check stations and reduction in losses due to theft. The RFID tags are placed in books and generally covered with a property sticker. Antennas of different sizes, based on application, are used to read the tags and manage the various library functions. Loans for the returned items will be instantaneously cancelled so that user may immediately borrow again. Librarians are able to allocate more time to customer service, as they are free from the labor-intensive loan cancellation activity associated with bar-code system. Reduces the users queue time in library. Visual and audio alerts for confirmation of item return to the users.



Figure1.RFID Technology in libraries

Wi-Fi Internet Access in libraries

WiFi is wireless Internet access to move about the library even in areas of the library where Internet PCs are not available.

Who can use WiFi access?

Anyone who complies with the Library's Internet Use Policy may use the wireless access service.

Do I need a library card?

Yes, a library card IS required to log in. If you don't have a library card, please see someone at the Circulation Desk.

How do I connect?

You will need:

1. A WiFi compliant 802.11b/g wireless device installed in your laptop, or a laptop with integrated WiFi capability.
2. Microsoft Internet Explorer, Mozilla Firefox, Netscape Navigator, or any other web browser.

In most cases you will not need to change the settings on your computer to connect. Simply launch your web browser, and enter your library card barcode number and the first four letters of your last name on the login screen. After you log in, you may begin surfing. Wi-Fi Internet Access technology allows users access the internet without the constraints of cables, data lines, phone jacks, or even walls. When connected to the library wireless network, users can use their laptops, computers, handheld devices, or web-enabled pages or phones to check e-mail connection. Users can use this facility for reading E-mails through Wi-Fi accessing online library catalogues, searching information through web, and live online reference. It provides faster access to information for library users, resulting in better service and improved user satisfaction in libraries.



Figure 2: Wi-Fi technology in libraries

Federated Search Engines

Federated searching technique is a hot topic that seems to be gaining traction in libraries now-a-days. There are many technologies coming up, there will be some misconceptions about what it does. The federated search engines (FSEs) made it easy for the users to search the required information at one search and get results from various websites / portals. It aggregates the search results from several e-resources of one's preference. The various portals / tools have been identified for this study, and they are discussed below:-

- ❖ Sehrch.com
- ❖ Knimbus
- ❖ Dbwiz
- ❖ LibraryFind

Blue tooth in libraries

Bluetooth is a prosperity open wireless technology standard for exchanging data over short distances using short wavelength through radio transmission. This is very useful to transfer the data.

Video conferencing in libraries

ICTs provide lifelong professional development by providing courses at a virtual situation, training on demand, orientation and refresher courses through videoconference or online. Synchronous technologies enable real-time communication and collaboration in a "same time-different place" mode, for example chat, instant messaging, video conferencing, audio conferencing etc. Asynchronous technologies enable communication and collaboration over a period of time through a "different time-different place" mode, for example emails, web blogs, databases, eBooks etc

Web Portal

A web portal is a site on the World Wide Web that typically provides personalized capabilities to its visitors, providing a pathway to other content. It is designed to use distributed applications, different numbers and types of middleware and hardware to provide services from a number of different sources. In addition, web portals are designed to share resources in-between a group of individuals or institutions. Portal is a term, generally synonymous with gateway, for a world wide web site proposes to be a major starting site for users when they get connected to the web. A library portal is a site where the electronic information and services available to an individual member of academicians, researchers, etc are presented in an accessible, secure, personalized, customizable and integrated fashion. The library portal provides users a single gateway to personalized information needed to perform within it.



Figure 3. Web Portal

Database Access

There are several publishers today offering web-based, intranet solutions for connected to local access to their databases. Some of the Examples include SilverPlatter, Cambridge Scientific Abstract and Institute for Scientific Information, Apart from the externally purchased databases; libraries have their own collection of CDROM, DVD databases mounted on their CD server/tower. The most popular programme called NPTEL (National programme on Technology Enhanced Learning) is an example of online database which is developed by the renowned Professors of the different seven IITs and IISc Bangalore have developed the curriculum based both video and audio courses.

Bibliographic Services

A bibliography is a list of resources used or referred to by the researcher or author. It can be prepared from any resources like databases or web. It contains bibliographical details such as author, title, keywords and resources where it is available and also references to published literature, including journal and newspaper articles, conference proceedings, reports, government and legal publications, patents, books, etc

OPAC/Web OPAC:

OPACs are the gateways to information in libraries and provide facilities to browse search and locate information. OPACs were developed to meet the needs of users in two different ways (1) it meant access to library housekeeping operations especially circulation and (2) to give the library users direct access to the machine-readable bibliographic records. It provides the public connected to access a particular library or group of libraries catalogues. It can be searchable with common command language. It retrieves information from local library or group of libraries. When the OPAC is given global access as known as Web OPAC, the same can be accessed world over.

E-Group (LIS Forum) in libraries

E-mail discussion forum is one of the early internet tools for discussing among the core interested groups. E-mail based discussion forums are one of the early applications of e-mail developed on networks like Bitnet, which have become very popular on Internet also. Using e-mail as the medium, forums enable informal communication among a group of people in a specific area, irrespective of their geographical location. Computer software used to set up and operate a forum on a network computer is called as the list server. Email group is a simple and efficient way to communicate to the members of the group. To sum up library and information science forum play an important assistant role for the profession.

E-Mail –Content alert service

E-mail addresses are only masked when viewing a Google Group, Yahoo Group or Usenet newsgroup through the web interface, never when subscribers receive messages by e-mail, nor when the Usenet articles are

distributed to other servers. Google Groups does not allow users to obfuscate their own e-mail addresses. The library professionals should create the content or publication alert services to the user community.

SMS in Libraries

Short Message Service or SMS can be applied in libraries for sending information to library users. Messages like the status of a loaned item, reservation information, overdue charges notice, reminders and major events can send through this service. From LISLINK forum have given option for sending SMS alert to their members.

Information Kiosks

Information technology, a kiosk (pronounced KEE-ahsk) is a small physical structure (often including a computer and a display screen) that displays information for people walking by. Kiosks are common near the entrances of shopping malls in North America where they provide shoppers with directions. Kiosks are also used at trade shows and professional conferences. The word is of Turkish and earlier Persian origin, where it meant an outdoor pavilion or a portico. The kiosks best known to travellers are those that display show and movie posters on the streets of Paris.

Information Kiosk or information booth dispenses free information in the form of maps, pamphlets, and other literature and advice offered by an attendant. Computer kiosk or interactive kiosk houses a computer terminal that often employs custom kiosk software designed to function flawlessly while preventing users from accessing system functions. The kiosk gives you quick access to information like:

- ❖ how to find books
- ❖ where to find scanners, copiers and printers
- ❖ nearby food and drink options
- ❖ restroom locations
- ❖ campus map, etc.

The library professionals now they update their information sources and services through LAN inside the library and campus wide. It provides details about the library and its services.



Figure 4: Information kiosks

Web publishing

A web site is a related collection of World Wide Web (WWW) files that includes a beginning file called a home page. From the page, you can get to all the other pages on their site. The websites are now-days using social networking tools such as FaceBook, Blog, YouTube, RSS. The user can get access the library any one of the social networking tools. Once you subscribed through email address, you can choose anyone of the social network tools such 'Face Book', 'Twitter', 'YouTube' and RSS. Few examples are given below:

Social Networking Sites (SNS)

Users can create accounts with the library reference network, recommend reference resources to one another, and the network recommend reference resources to users, based on similar profiles. In the library context, social networking presents three interesting opportunities: marketing, professional development, and socially enhanced search. Social networking sites allow librarians to adopt a new role by placing themselves into a social realm with users. By reading blogs, group postings, and message boards, the librarian becomes an active participant, who is able to anticipate and advise patrons as needs arise. Linking to patron profiles also keeps the library within the consciousness of users, potentially increasing interaction.

CONCLUSION:

In the present changes the library professionals should develop and provide the information sources and services through the web communication tools like LIS Forum, SMS service, Web blog, RSS, Facebook e-mail alert and Twitter. The information professionals working in electronic information environment require a balance combination of knowledge, skills. Finally, Multi-Disciplinary Knowledge and Skills are required for information professionals to survive in the universe. Presently, the Innovative Library Services depends upon the Information Communication Technology Based Tools. In order to support new learning environments, libraries are developing new activities in various directions. The ETH Library has defined two dimensions that form three new areas of activity. All these initiatives add value to existing services and collections. They encourage active learning and promote knowledge and information skills of students and teaching staff. These initiatives require new standards, personalized services, acquisition of copyright cleared material and interactive tools. Although these services were designed primarily for students and staff members of the ETH, users outside the university can also benefit from many of them, such as document delivery, electronic dissertations etc.

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Librarian, SCS College, Omerga, Osmanabad (MS) India.