
CHAPTER-IV

INFORMATION COMMUNICATION TECHNOLOGY (ICT)BASED LIBRARY SERVICES

4.1 Introduction

The fusion of information and technology has led to the concept of Information technology and further tremendous developments in communication networks resulted Information and Communication Technology (ICT). The current millennium has been the era of ICT, which has had greater impact on every aspects of life and attested to every organizational set up irrespective of its nature. ICT is a revolutionary innovation across all sectors of society, providing a wide range of services, like e-business, e-learning, e-health as well as empowerment through information. More particularly in an academic setup, access to timely information at the right place has been supported by the technology. Now it is up to the libraries to ensure how best the latest technologies are assimilated in the information cycle to ensure access to desired information without loss of time of users. .

An article written by Tikekar and published in 2009 has highlighted the change in librarianship in 21st century. Article that the even though activities and services of the library have remained the same, the mode of execution and delivery of information has been impacted by information Technology.

4.2 ICT Based Services

Traditional services: -The traditional services covering user services reference and referral services, accession list, display of new arrivals, publishers display, catalogues and newsletters, CAS ,SDI services ILL, translations, journal articles, literature review, book exhibitions and user education and training. The technical services cover manual and online catalogue. Special indexes, thesaurus building, and computer training.

4.2.1 Digital reference service

Library services are being delivered to the remote users. New techniques in delivering information in various formats including electronic documents as alternatives to paper based documents. These methods of delivery include e-mail messages, FTP, putting information on bulletin boards or home pages on the Internet. This will avoid errors of transcriptions, reduce time and cost involved provides flexibility of timings and overcome barriers of distance.

Digital Reference Service provides professional reference service to users anywhere anytime, through an international, digital network of libraries. This service is a real-time reference service via the Internet by making use of valuable resources. These advantages are possible because of digital uniqueness of documents and technology. The unique nature of digital reference introduces a new realm of issues and challenges. The need for guidelines and standards becomes even more important as consortium-wide digital reference services continue to evolve. Further, the improved facility of distribution and scanning make it possible to extend benefits to materials that are in non-digital format. The web, as a research tool allows the librarians to produce and deliver the information in electronic format, thus enhancing the level and access to a larger audience.

4.2.2 Online public access catalogue

The advancement in information and communication Technology and application of computer with dedicated library software have enabled libraries to develop new service known as Online Public Access Catalogue (OPAC) to the users. OPAC provide machine readable format searching access point like authors, titles. Publishers and keyword. Call numbers etc...

The information technology has enabled the library and information centres to boost their bibliographical records on the internet termed as WEBOPAC.

4.2.3 Document Delivery service

Due to decreasing value of the Indian rupees against foreign currencies has compared the university libraries to reduce the budget on journals to a minimum level. This is resulted directly or indirectly affecting the academic and research work in the university. To overcome this resourceful libraries have developed document delivery services.

Through which the scholar are provided bibliographical information needed for their work by using the following options.

- Email
- Normal letter by post
- Fax
- Telephone (in case of urgency)
- Requests in person are also honored.

4.2.4 CD ROM database service

Due to the ever-growing information resources in multiple format irrespective of disciplines has created problems for the users to locate and identify the primary literature generated around the world. This has led to the significance of secondary sources known as Abstracting and Indexing journals that are now available in CD-ROM format including print popularly termed as CD-ROM Databases. These databases also include encyclopedias, directories and profiles. These databases facilitate easy searching of information with various access points and as a result, the libraries have preferred to develop these CD-ROM databases in the interest of users. This is a great boon to the academic and research community to trace the research information incorporated from the world literature.

The popular CD-ROM Publishers i.e. Silver Platter, OVID etc. are the pioneers in the CD-ROM Industry. Some of the important databases are –

- Math Science
- Biological Abstracts
- Biotechnology Abstracts
- Sociological Abstracts
- Econ Lit
- Psych Info
- Cross Culture
- Georef
- ERIC
- LISA
- Dissertation Abstract International
- ABI/Inform
- INSPEC

4.2.5 Content alert service

The library can also provide the Articles-Alert Service to its users by downloading e-journals in which some of them are available freely and can be uploaded on to the intranet.

Elsevier's Science Direct is an example of a service offered by a major publisher that includes alerting services for their journals. The options include a search alert that lets you input author names, subject words, etc.; a volume/issue alert to discover when a new issue appears; and a citation alert that notifies you when an indicated article has been cited by someone in a newer article.

The American Chemical Society (ACS) Publications Division offers a similar service for its 30+ journals, ASAP Alerts and Table of Contents Alerts. ASAP stands for "As Soon As Publishable," so when one of the articles enters the database, you are notified immediately via e-mail that includes a link to the article. The American Chemical Society - Table of Contents Alerts is also an e-mail notification service, but it comes out only when the entire contents of a new issue are posted on the Web.

4.2.6 Selective dissemination of information service

Selective Dissemination of Information (SDI) can be constructed to produce frequent computerized updates from the Primary sources or Abstracting databases or other information sources. Since SDI is tailored to individual interests, the cost is high compared to other options.

By maintaining User Profile and Document Profile, one can provide E-SDI Service to its users. One can give personalized SDI service by sending the list of latest addition to the library, journal articles of their interest can be scanned and send as an attachment. Also articles of interest downloaded from the World Wide Web can also be saved and later on sent to the user or pasted on the bulletin board of the library page, saving the time required to surf the net. CAPlus and Other STN Files--The CAPlus file on STN provides fast entry of articles into the CA database for key journals (about 1500 titles).

4.2.7 E-Translation service

Most of the non-English language portion of the world's scientific and technical literature required by scientists, engineers, and technologists probably amounts to as much as 50 percent. At present, the most expedient way to make this body of foreign

language material available to the scientists and engineers of the system is by the provision of a translation facility. Translation from German, Danish, Russian, French, Japanese, etc. to English would be necessary. It may also be imperative, at a later date, to provide for translation facilities to regional languages from English to facilitate access to information to the operating and technical personnel in the lower cadres.

4.2.8 Web OPAC service

The Internet supports a variety of on-line services, and a number of tools are available to enable people to make good use of these, including: telnet, FTP, Gopher, Veronica, Archie, Wide Area Information Servers (WAIS), and the World-Wide Web (WWW). Now the library holdings are not only confined to library premises, but it can be hosted on the Internet revealing the collections of the library to the world. This facilitates the users to search the availability of documents in the library irrespective of location either by author, title, subject etc.

Innovative Web OPAC (Online Public Access Catalog) sets the industry standard. Because Millennium is Web-based, patrons have global access and need only a standard Web browser with Internet access to remotely browse the library's catalog from any place at any time.

4.2.9 Access to full Text E-journals/databases

The user preference to electronic media has become a day of demand due to information explosion. The users demand to access information at their desktops that too in electronic environment. As a result majority of publishers have started publishing print journals into electronic journals.

Electronic journals (e-journals) are available in many ways.

- Locally held electronic journals: These include full texts of journals covered by ABI/INFORM of Bell+Howell, and more.
- Electronic journals in Internet based databases: These include over 7000 journals held in the Proquest Direct database of Bell+Howell.
- Electronic journals held at respected publishers sites: These are available either directly through Internet access to the sites, or via intermediaries such as Silverlinker from SilverPlatter Information, Information Quest of RoweCom, and similar facilities.
- Consortia's like UGC Infonet, CeRA, INDEST are also available.

4.2.10 Internet based services:

The internet has become the most largest flow of information and has provided the various services to the user likee-mail, chat List serves remote log on, free journal services, virtual reference desk, subject, portals and gateways electronic publishing services, business and trade information, TOC services, blogging, bulletin board, push and pull based services, OPACs housekeeping operations full text downloads etc.

- Internet Service
 - E-Mail
 - WWW
 - Discussion Forums
 - Newsgroups
 - FTP & Telnet
 - Healthy Voice Chatting Service (One to One)
- E-Content Alerts
- Access to E-journals
- Access to Full/Abstract
- Access to Network Consortia's
- Virtual Library Tours
- Educational Directories
- Web based User Education
- E-Archives
- Institutional Repository
- FAQs

4.2.11 Intranet based services: amongst Intranet based services such as CD-ROM Database search, OPAC based Services, EDDS resources sharing, circulation based services, SDI and CAS services including alert, creation of internal databases, development of institutional homepage, online training, FTP facilities are available at local network level.

4.2.12 Online database search services:-The information bookers like TN/CAS have been proving to be helpful in making the user available multiple database search facility for the purpose of academic and research work.

4.2.13 Digital library based services:

Under digital library based services are the following services available like virtual reference desk, personalized services integration of libraries and the resources of the various organizations OAI, TOC, SDI, CAS alert, E publishing. Remote access, bibliographic database services, Institutional repositories, hyper linking-reference desk etc. Digital library based services are requesting the traditional services and methods of library.

4.2.14 E-mail based reference services:

Under this category the queries of the users are answered through E-mails and this service does not require any additional software's-mails are quick and ready reference service can be available at economic cost.

4.2.15 Library website based services:

Under this a library web page is designed and provided by librarians thereby providing links to various reference tools and database to the users and provide short and long range services to users.

4.2.16 Ask a-Librarian: This service provides the users to ask questions online and receive answers for free, from public information locations. Example Questionpoint.org

4.2.17 Chat reference service: In this service a reference librarian and the user can communicate each other using short text messages in real time by using normal chat software e.g. WHATS app, instant messaging (IM) also used by the librarians and users.

4.2.18 Video conferencing/ webinar

In this reference service librarians and users are able to see each other e.g. Skype hangout etc. discussion with experts meetings and online demonstrations available to users.

4.2.19 Social networking based services:-

Under this service librarians are using social media tools e.g. facebook.com, slidshare.com, link, twitter etc. for diffusion of information and distributing educational resources to users.

4.2.20 Mobile based services:- In this service librarians are using smart phones or android applications for QR code service (QuickResponse Code), mobile wiki dictionaries, Web OPAC etc for sharing the information to the users

Summary

This chapter explores the current technologies which are used in the university library setup in order to provide effective services to the users. The information service that provides the assistance to the users by libraries using information technology automatically search on most recent entries in a database for the benefit of users is termed as info-tech based information services. The various Info-tech based information services like Digital Reference Services, OPAC, WEB-OPAC, Ask a Librarian, Internet based services, web-enabled services, 3M security systems and resource discovery tools are discussed.

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