

**Electronic Information Services in the Digital Environment:****Need of the Hour**

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**Abstract**

The importance of electronic information services is rapidly increasing due to the changing approaches of users in the libraries. Libraries are facing new challenges, new competitors, new demands, new expectations and variety of information services from the users' needs and requirements. The digital resources and services available in a library play a prominent role in facilitating access to required information to the users in an easy and expeditious manner. Further, one need not go to the library to make use of print formats as the digital resource can be made use of by any user through online access via networks or authentication methods at any time by comfortably sitting at home or office. Thus, digital resources in a library play a significant role in academic libraries as they are mostly tuned for the promotion of academic excellence and research. In view of all this, in this paper briefly describes about the electronic information services like OPAC, CD-ROM Databases, Electronic/online databases, Internet, E-Mail,SDI and CAS etc.

**Key Words: OPAC, E-Mail, CD-ROM/DVDs, Internet, SDI, CDI and BBS**

**1. Introduction:**

Libraries at present are passing through the information age. Most of the Academic and special libraries are now interested to provide information services using latest information technology tools like CD-ROM , DVDs and other Computerized Online databases through Electronic networks, Internet etc. In the Indian context the establishment of CD-ROM, DVDs workstation, collection of different CD-ROMs, DVDs, online searching of databases of other countries and formation of Internet work stations are expensive activities for analyzing its effectiveness in satisfying the needs of the users.It helps as a feedback for its parent organizations and helps to make further plans for improving the quality of the library services. The advent of electronic information services has created a new set of demands for information providers. These services include new reference models, new means for information delivery, and demands for user and personnel education in the uses of the new resources and technologies. It has also

prompted a re-examination of the rights and responsibilities of information providers, intermediaries, and end users.

A number of services are now offered through online that, heretofore, were provided in person or through other print means. Online includes electronic reference and electronic document delivery systems. These services have been expanded to include automated information delivery and built according to various interoperable standards. Electronic information services that have been created include interactive e-commerce and e-governance services as well as various organizational database management needs (including registrations, membership renewals) and other functions.

### **3. Electronic Information Services:**

Over the past so many years, information services have made increasing use of computers. Digital information and corresponding technology holds out many tempting possibilities. But to realize the benefits fully one should understand the development of electronic information service. Electronic information service defines as one where maximum use is made of electronically held information. Establishing an electronic information service from scratch may be easier in converting from a traditional paper based service. Depending on the main subject area in which the Library and Information Service is operating, the following list suggests some of those choices:

- Electronic Databases
- Electronic Journals
- Multimedia products
- Image collections
- Electronic Books
- Encyclopedias in electronic form
- Reference materials in electronic form
- Daily news in electronic form
- Scientific, technical and medical information

### **3. Electronic Information Services - Library Operations:**

#### **3.1 Electronic Reference:**

Electronic reference has come to mean several different things. Reference service can be defined as a way of establishing contact between a user and his/her document in a personal way. Electronic reference is interpersonal reference information management using electronic means for the patron query and for the reference response. Libraries have employed this model using telephones for years. E-mail has added a new dimension to the reference relationship. Asynchronous tools such as email, subject gateways, FAQs, and electronic libraries and interactive tools like chat rooms, virtual reference desk, and ask-me are replacing the conventional

means of post, phone or in-person reference enquiries. *Ask-a-Librarian* allows the user to click on *ask-a-librarian* link to send a formatted enquiry to the reference librarian. The reference librarian either provides an answer, links to resources or link to a subject expert. Interactive tools now allow a reference interview online.

### 3.2 Information Delivery:

Libraries and other information providers are moving to augment or change traditional models by providing a wide array of electronic services. Selective Dissemination of Information (SDI) and document delivery systems are of long standing in the library community. Document delivery is a library-managed courier service to move requested documents from the repository to the end user and back. Many libraries have long provided such services by moving physical objects.

They now provide electronic document delivery by fax or through transmission of digital documents by ftp, telnet, e-mail attachment or the Web. Indeed the services offered by such companies as Amazon.com, Borders, or Barnes and Noble represent a form of document delivery provided by the commercial sector. SDI represents a slight variation on the document delivery model. Under the SDI model, documents are delivered to end users based on some other criteria than specific demand for the object. This may be a user profile developed by the librarian in cooperation with the end user and be based on end user interests.

## 4. Types of Electronic information Services

### 4.1 Online Public Access Catalogue and User Services:

Library catalogue is perhaps the most important tool for locating material in the Library. Unfortunately until recently its value has been restricted by its physical form, most commonly a large card catalogue or a set of printed volumes. The advent of computers, with their ability to process large amounts of information and output in a variety of formats has finally brought the library to the customer, wherever he or she may be located, in the form of Online Public Access Catalogue (OPAC). An online public access catalog or OPAC is a computerized online catalog of the materials held in a library, or library system. The library staff and the public can usually access it at computers within the library, or from home via the Internet. OPACs are often part of an integrated library system. In its most simple form, a library's OPAC could consist of nothing more than a simple index of the bibliographic data cataloged in the system.

OPAC allows searching the entire catalogue online, conveniently and quickly, using one or more search criteria. Another advantage of OPAC is its ability to display catalogue records in a variety of formats such as AACR2, MARC etc, and the records can be displayed in a desired order. Another convenience that OPAC offers is accessibility from a remote computer, using

a local area network (LAN) or a wide area network (WAN). With modern library systems offering interface to OPAC, it is also possible to provide access from anywhere in the world via Internet. An internet enabled OPAC is called Web OPAC. Web OPAC can be searched using any common browser, such as Microsoft Internet Explorer or Netscape Navigator. Apart from searching OPAC, some libraries allow their remote users to avail certain online services like book reservations, book renewals, membership application, address change, suggesting books etc.

#### **4.2 Document Delivery Service (DDS):**

In this service either the original document or its copies or translations are delivered to the users on demand. In this age of technology, the form of Document Delivery Service has changed. The document is supplied or delivered in electronic form to the users. The electronic Document Delivery Service prevents the delay of supplying a document and gives immediate access to information. It involves the procedure to be followed to get this service for research purpose. It may also include a form for requesting a book, a journal, or a chapter of a book, to use the Document Delivery Service.

#### **4.3 Digital Library and Archives:**

Many Libraries traditionally have been repositories of local information and heritage documents such as manuscripts, rare books, maps, photographs and paintings etc. Archives or record management is also part of LIS function, particularly in business and research organizations. In other cases such as university libraries, documents generated in-house such as dissertation and theses, research reports etc represent the intellectual strength of the institution. Libraries are developing digital repositories of such resources, and providing Internet or intranet access to these. Large public and academic libraries also provide up to date local information via internet. Digital libraries are a natural progression from electronic document sharing. The main benefit of digital library is the ability to provide 24-hour, remote access to high-demand or restricted materials for multiple concurrent users.

#### **4.4 Internet:**

The Internet, which is a global system of networked computers with its different services and applications, has become a major source of information in the current times. Information superhighway for many people is the mysterious area, which involves where to go and how to go about. Navigation of information can be frustrating and time consuming without the knowledge of using of tools. So the awareness, their utility and means of accessibility of internet services or applications available would help in making proper use of the services in ones context of requirement to the fullest advantage.

#### **4.5 Electronic Mail (e-Mail):**

Electronic mail, abbreviated as e-mail or email, is a method of composing, sending, storing, and receiving messages over electronic communication systems. The term e-mail applied both to the internet e-mail system based on the simple mail transfer protocol (SMTP) and to intranet systems allowing users within one company or organization to send messages to each other. Often these work group collaboration systems natively use non-standard protocols but have some form of gateway to allow them to send and receive internet e-mail. Some organizations may use the internet protocols for internal e-mail service.

#### **4.6 CD-ROM/DVD Databases:**

CD-ROM/DVD is a high capacity storage media, which is widely used in libraries due to its various advantages. Different abstracting and indexing journals are now available on CD-ROM, for example LISA (Library and Information Science Abstracts), ISA (Indian Science Abstracts), etc. The libraries those have infrastructure to use CD-ROM/DVD provide this service to the users. It is a way of providing bibliographic services using CDROM/DVD. Another reason of libraries using CD-ROM/DVDs is that some documents are available in the same media and to give access to those books libraries provide CD-ROM service.

#### **4.7 Electronic Databases:**

Data that is stored more or less permanently in a computer readable field is termed as database. A database can also be seen as a collection of interrelated largely similar data or data records in a set of linked cites designed to facilitate the retrieval of information, which may be processed by one or more application programmes. Further, the files of the database are organized and administered in such a flexible way that these can be adapted to new, unforeseen tasks

#### **4.8 Audio& Video facility:**

Audiovisual materials are important sources of information, education and entertainment. Many libraries particularly media libraries and large academic and public libraries hold audio visual material such as music, films, pictures and photographs etc. Audio-Visual Facility is organized for the benefit of end users. In addition to this, access to important DVDs is made available through CD Server, at the specific requests made by the users, for enabling them to view it on their desktops.

#### **4.9 Inter Library Loan Services (ILLS):**

Inter-Library Loan refers to request for a document not available in a library. Whatever might be the nature of library, but it should take the advantage of borrowing books from other libraries. It may include the name of libraries from which the library can acquire materials on loan along with the libraries that are allowed to take materials on loan. Librarians can now access catalogues of thousands of libraries across the world using Internet. Developments in digital library and internet technologies have made it

possible to automatically update the catalogue records from member library systems, distributed searches using a single user interface, and value added services.

#### **4.10 Selective Dissemination of Information (SDI):**

SDI is an alerting service, which informs the users that some documents are available in the library, which may fulfill their requirements. H.P.Luhn, who first gave the concept of SDI service, defines it as "The SDI is that service within an organization which concerns itself with the channeling of new items of information, from whatever source, to those points within the organization where the probability of usefulness, in connection with current work of interests.

#### **4.11 Current Awareness Service:**

Current Awareness Services has been important means for keeping the users up to date in their areas of interest Libraries now compile current awareness bulletins using predefined search strategy and running on the database either on CDROM or online periodically and getting the desired output. Subject to copyrights, the output can also be stored on a local system, and disseminated online (internet, intranet) and offline (print, CDROM, email). Table of contents of most journals are available free from the publishers' sites. Some publishers even offer free email update of table of contents. A large number of electronic publishing sites or portals now offer current information via email to registered users. Internet has enabled a lot of innovations in contents, methods of production and distribution of current awareness products. Tools such as Listserv, Web log, Webzines and e-newsletters are common

#### **4.12 Newspaper Clippings:**

Library subscribes to all well known news papers and also provides Newspaper Clippings services, it includes cutting of the important articles, issues Published in newspapers and make it available according to date or alphabetical order, in this present electronic, environment, libraries also provide the same information through their network by scanning each and every important articles, issued etc.

#### **4.13 List of new arrivals:**

List of new arrivals is compiled every week or may be fortnightly and distributed over the net in addition to a print version. While all bibliographic information is added, in some cases a hyper-link to the cover pages (scanned image) is also provided to the end user.

#### **4.14 Bulletin Board Service (BBS):**

The BBS is a miniature form of an online system for a cost-effective distribution of information in electronic format. BBS supports interactive communication between users on a wide variety of subjects. Bulletin board

system is a computer or an application dedicated to the sharing or exchange of messages or other files on a network.

#### **4.15 Current Periodicals List:**

Current List of Periodicals is compiled every year and distributed over the net in addition to a print version. While all bibliographic information is added, a hyper-link to the publishers' site is also provided to the end-user. Nowadays, many publishers are providing access to their online version of their journals, if print the print version is subscribed. Accordingly, the user can access the online version of the periodical to the level allowed by the publisher. While the subscription is for full text, full content is made available to the user.

#### **4.16 Bibliographic Service:**

A bibliography is an organized list of primary or other sources relating to a given subject or person. It is usually arranged alphabetically by author or chronologically or by topic-wise. Compilation of bibliographies, reading lists and state-of-art reports are very parts of LIS work, particularly in research and academic libraries. Browsing through the manual indexes and abstracts is a tedious and time consuming work, and does not always produce up to date result. Availability of databases in electronic form on CDROM or online, offers convenient, efficient and cost effective information retrieval.

### **5. Advantages of Electronic Information Services:**

1. Better access to a wider range of information
2. Potential to provide better value for money
3. Better use of staff time
4. Less time spent on housekeeping manual sources
5. Total stock access without any risk of losing physical documents.
6. Potential to reduce or eliminate multiple purchases where electronic access is possible

### **6. Need of User Education:**

User education is very important, because of the explosion in digital and online resources and the frequent change in technologies and standards, libraries have had to develop in-house training programs for users and staff. In addition, the advent of the WWW made easy access to information over the Internet a reality. With the advance of search engine technology, came a revolution in information literacy and information use. . LIS customer relations can be tremendously improved by innovative use of technology like virtual library tours, making interactive library maps and floor plan available on the library web site. A highly ICT enabled environment requires appropriate training to its users also. The contents of user training must include use of internet tools and resources. Conventional user education programmes can be supplemented with web based instructions and guides for use of resources. In the conventional class room

based user education also ICT tools are used for presentation and demonstration.

Library professionals should have the following skills to satisfy the user needs:

1. Net navigator - in-depth searching skills; validating Web sites; and using alerting services;
2. Information technology gatekeeper - web design skills; mounting and updating information; setting up and managing email databases; designing specialist interfaces; and setting up digital links;
3. Information consultant - analysis and diagnosis of users needs; awareness of information sources; building partnerships with other information providers; and information design and presentation;
4. Information manager - strategic planning; understanding regulatory and legislative requirements; content creation skills; and
5. Educator - training other staff and users to use ICT effectively and designing learning materials and programmes.

## 6. Conclusion:

Electronic collection management and electronic information services are in a period of rapid transition. Information organizations are undergoing redefinition. New forms of digital libraries and information collections are providing more information to more users more easily and on demand. The structures of information delivery have been revolutionized by electronic information and the Internet. Information collections are no longer geographically bound using Web access, it is possible to search the OPACs of many of the world's libraries and to utilize a number of their online resources. Thus online and hybrid libraries have global reach. With global reach comes global responsibility. The technology used to manage the information changes allows for extensive innovation in information selection description, distribution, retrieval, and use. The new e-publishing environment requires totally new ways to assess information for the purpose of selection. There is a new array of information markup and cataloging systems for collection management that, in turn, supports an equally growing array of information services for information producers, consumers, and intermediaries.

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