



IMPACT OF THE INTERNET ON LIBRARY AND INFORMATION SERVICES

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DOI - 10.5281/zenodo.7187482

Abstract:

With the growing advanced technology in terms of the internet and communication, the expectations of the user are changed. Therefore the way libraries are disseminating knowledge also changed. Developed in North America, the Internet has rapidly spread around the world in the past decade and has had an impact on the lives of millions of people. Many could not work effectively without it. Over the past few decades, a variety of new and exciting information services have appeared on the Internet, each with its distinct characteristics. Computer and Communication technologies have revolutionised the whole world of information and have penetrated areas beyond libraries transforming nearly every facet of society. Powerful PCs, sophisticated network technologies, and affordable telephone lines have given a boost to the Internet. The use of the Internet and other network resources is changing the traditional library functions. While the Internet and other network resources are changing the traditional library functions. While in the 1980s and early 1990's the Internet's modalities were changing traditional library functions and were used mainly for communications, database searching, bibliographic access etc. Today, the Internet's modalities are changing or augmenting traditional functions of the library profession such as the information transfer process and the perceived nature of information itself.

Key Words: Internet, Digital Library, Cloud Computing, Web 2.0

Introduction:

A Library is a central responsibility for the better functioning of an educational institution. Academic libraries have an important role to play in providing equal access to information. If the purpose of education is learning, then the library is an indispensable source of learning. The Web is no substitute as only a small percentage of information contained in print is on the Internet. Academic libraries are facing more challenges as they enter the digital era. Increasing amounts of the material they acquire are being produced in digital

formats, and college and university students are especially sophisticated users of the new information technology and are increasingly insistent that coursework and course readings be accessible via the Internet.

Library professionals need to position themselves as leaders not only in the information field but also in the field of information technology. One can do it by information organization and management on the Internet and by designing and maintaining a library website. Libraries can also project their collections and

activities on the site and supplement their services by exploiting the Internet. The scope is unlimited, all that is required is selective and imaginative applications to library activities. The increasing use of the Internet for information has created a feeling among some library professionals and members of the public that the library will lose its role in providing information shortly after there is a decline in the usage of traditional library services.

What is Internet? :

It is a global network of computer networks. It comprises millions of computing devices that carry and that carry and transfer volumes of information from one device to the other.

Different Tools and Services of the Internet:

The Internet covers large, international Wide Area Networks (WANs) as well as smaller Local Area Networks (LANs) and individual computers connected to the Internet worldwide. The Internet supports communication and sharing of data and offers a vast amount of information through a variety of services and tools.

The major Internet tools and services are: 1. Electronic mail (email) 2. Newsgroups 3. Internet Relay Chat (IRC) 4. Telnet and SSH 5. File Transfer Protocol (FTP and FTPS, SFTP) 6. World Wide Web (www)

Resources Available on the Internet:

The advent of IT and other communication technologies changed all means of information services and sources. The Internet has given the world numerous easy-to-use and inexpensive research tools. The Internet is changing the way view information sources. Information bundled

on the World Wide Web in the form of structured and non-structured sources creates a huge problem for professionals who are dealing with information. The shift in the publication process takes place as individuals, institutions, publishers, professional associations, business houses and many others are publishing information on the Internet. Electronic publishing is considered a speedy, accurate and effective way of communication among academia and the research community, and becoming a favourite idea among information professionals to experiment with. The library and information professionals have a vital role to play in organizing the information and bridging the information gap. The Internet has become a part of the library environment today. Internet for reference work in the library is gaining popularity. It can be successfully utilized for providing short-range and long-range reference services because various primary and secondary sources of information are available online from many sites. As information professionals, we can arrange the sources on the net as we come across, them in a structured manner.

These can be; 1. *E-journals*, 2. *Standards*, 3. *Preprints*, 4. *Bibliographical Tools*, 5. *Old books*, 6. *Directories*, 7. *Encyclopedias*, 8. *Maps*, 9. *Audio/Video*, 10. *Patents*, 11. *E-books*, 12. *E-TDs*, 13. *Library Catalogue*, 14. *Share wares*, 15. *Newspapers*, 16. *Magazines*, 17. *Databases*, 18. *Films*, 19. *Technical reports*, 20. *Proceedings*, 21. *Websites of Companies, Institutions, Organizations, Associations etc.*

Impact on Library & Information Services:

Perhaps no other recent innovation has impacted the library profession to such

a great extent as the Internet. Not is our world becoming an interconnected global community, but this early use of the Internet has changed the fundamental roles, paradigms, and organizational culture of libraries and librarians as well, which created a profound impact on L&IS by offering new modes of information for libraries and librarians, which appears to parallel the growth of acceptance and use of the Internet by library professionals. Technologies such as email and the Web provide tremendous opportunities for library & Information Scientists to deliver the information to the desktops of our users. The web offers significant advantages by integrating different libraries & information services with a common user interface offered by web browsers. Realizing the potential, many libraries are rushing to get the connectivity.

The following will give an idea of which various functions of libraries may take advantage of Internet and Web technologies.

Acquisition:1. Correspondence with Bookseller & Publishers, 2. Reminders, Price verification, 3. Bibliographic details and downloading of bibliographic records etc., 4. Ordering, billing
5. Bookshops are-line e.g. amazon.com

Classification:1. Network resources, 2. Dewey Online, 3. Maths. Classification System, 4. Engineering Electronics Lib. Classification, 5. Search engines such as yahoo use DDC.

Collection Development:1. Ownership vs Access, 2. Subscribe in print or e-form, 3. Pay-per-use, 4. Consortia approach.

Cataloguing:1. Cataloguing of network resources, 2. Online Catalogues, 3. WorldCat (OCLC), 4. Web OPAC-web sites, 5. MARC adds 856 fields, 6. OCLC

Scorpio project- MARC & AACR2, 7. Metadata standards- Dublin core.

Circulation:1. Remote login, 2. Status check, 3. OPAC access, 4. Reminder to users, 5. User request, 6. Direct borrowing, 7. ILL.

Resources Sharing:1. Union Catalogue – Access, adding, downloading, 2. Access to databases over networks.

Services:1. ILL, 2. Document Delivery Service e.g.- Ariel, 3. Reference/ Inf. Services, 4. CAS – Recent additions, - Contents pages., 5. SDI – From library collection, - Databases, - Internet Sources., 6. OPAC, 7. Database access – Bibliographical, - Full text, - Many vendors & originations are moving to the Internet (web) access.

Subject Lists/ Gateways:1. Internet Public Library, 2. EEVL – Engineering, 3. SOSIG – Social Science, 4. OMNI – Medical, 5. ADAM – Arts, Design etc.

User Education:1. Through Email, 2. Through the web, 3. Setting Internet.

Retrieve of Information:

Directories, Search Engines, Meta Search Engines Information Gateways/Virtual Libraries etc are widely used to retrieve relevant information from the internet.

Search Engines:

Search Engines are huge databases of web page files that have been assembled automatically by machines.

- Individuals compile their searchable databases on the web.
- Search engines employ ‘spiders’ or ‘robots’ or ‘crawlers’ to crawl through webspace from link to link.
- Searches first its database.
- Comprehensive coverage.
- Best means to search huge databases.
- Usually up-to-date.

- Relevance of returned documents is less.
- Less descriptive.
- Repetition is more.
- No quality evaluation.
- Cover only around 35-40% of web pages.
- There is nearly 60% overlap among the search engine's coverage.
- Best at finding unique keywords, phrases, quotes and information buried in the full text of web pages.
- Use them when you want a wide range of responses to specific queries.
- Source to keep in touch with Search engine watch <http://searchengineinewatch.com>

Meta-Search Engines:

- They are also called Meta crawlers or multi-search engines.
- Do not crawl the web compiling their searchable databases.
- Search the databases of multiple sets of individual search engines simultaneously from a single site and using the same interface.
- They function as an intermediary.
- There are three types of meta-search engines, -listing, -options, -automatic.
- While your query, options less.
- Cover all major search engines.
- Do not return all results retrieved, they take only the top ones from the list.
- They are very fast.
- Use them when you are in a hurry.
- Helpful when you want to have a quick overview of a subject and/or unique term.
- Use them when you are, - Conducting a relatively simple search-I-Not having any luck

pulling up documents in your search.

Cloud Computing in Libraries:

The technology of Cloud computing has potential for libraries as they can put more content on the cloud. As pointed out by Thimmaiah and Kumara(2014). The catalogues of the libraries can be linked to the consortiums which will facilitate resource sharing. The user may be able to browse a book, CD or DVD physically. By scanning the rare documents a comprehensive database can be prepared and made accessible to the researchers. In the digital library storage of data is the main function which includes the backup and maintenance of files as well as reproduction as per user demands and this can put stress on the local servers. Due to the cloud computing technology, the users' demands can be satisfied at a greater speed and it also reduces the cost of updating and maintenance. As pointed out by Goldner (2010) the librarians do not have to indulge in technological aspects and can concentrate on collection building, user satisfaction and innovative practices to attract the users.

Advantages of Cloud computing in libraries:

A few advantages of cloud computing technology can be derived as under:

1. The applications can be manipulated and configured at any time.
2. It does not require specific software to access or manipulate the data.
3. It gives independent access to any type of client without any geographical boundaries.

4. It also does not require any interaction with the cloud service provider.
5. It provides an increased storage space which can store large volumes of data.
6. It is cost-effective and requires only an internet connection. The billing is done as per the usage.
7. It is flexible and enables speedy delivery of information.

Designing and Maintaining Library Website:

Libraries can play an important role in disseminating information by creating their website. Through their sites, they can inform about various services, products, events, and courses offered to them. For academic librarians, the most important users include the faculty, students and other librarians. However, depending on the type of library the primary audience may vary. The most important point for libraries in designing a website is to consider the primary audience and provide information relevant to their needs not readily available elsewhere. Since most information is generally available on other sites, the librarian's role gets emphasized in organizing the information in their web pages by providing links utility as they save time over the print volume and money over the online databases. In essence, combining information or links to other information in ways not previously done can add value to the information and consequently to the library website.

To provide easy access to the libraries' websites the librarians need to heed some of the following basic rules.

Marketing of Library Services:

Philip Kotlar, Marketing Guru has defined marketing 'as a social and managerial process by which individuals and groups obtain what they: need and want through creating, offering and exchanging products of value and others view of the above definition, library activities are teamwork or the library, library staff needs to extend promotion and cooperation to users and market their services. The basic purpose behind the promotion is to educate the students and faculty members on how to use the library and its resources and also to upkeep their knowledge by providing information appended in various sources available in the library. Like companies' promotion and marketing concepts, library promotion and marketing services are different. The primary purpose of marketing concept, library promotion and marketing services are different. The primary purpose of marketing company products is to increase sales and ultimate gain more profit from it. The libraries are no-profit organizations; It is social organizations and service centres.

Inter Library Loan (ILL):

To facilitate resource sharing, many libraries have been using ILL. The traditional inter-library loan operations are quite time-consuming and labour-intensive. With the advent of new technology, electronic documents and various inter-library management tools such as software like Ariel and Avis have facilitated libraries to share their resources effectively and efficiently.

Ariel software opens the window on Internet document transmission. The Ariel workstation has been developed by the Research Libraries Group. In the US, several university libraries were heavily involved in testing it. Ariel lets users send

and receive crisp clear copies of documents over the Internet with the speed and ease of a fax. Avis is another Canadian product developed at the University of Waterloo and refined with the cooperation of interlibrary loan practitioners in libraries across Canada and the USA. Avis is PC based on the inter-library loan process. The inter-library loan office can network multiple Avis workstations on the local area network. Thus with the help of these software inter-library loan over the Internet has become of great help in inter-library lending and borrowing. Retrieval has become easier and transactions much quicker as the request can be sent through e-mails.

Conclusion:

The internet has thus integrated nearly all aspects of the library activities, the librarians can now use the Internet for exploiting the catalogue of other institutions, ordering books and journals online, participate in ILL, use e-mail and discuss through list serves, support reference service through list serves, support reference service through remote databases and most important of all establish library/ home pages to project their collection and services on the site. The scope is only limited to the imagination of library professionals. All that is required by today's professionals is a thorough understanding of change in the concept of librarianship and a psychological willingness to look upon the internet and the www as an opportunity and respond to the challenges of information resource management and information infrastructure development for harnessing the benefit of the much talked about internet technology in the context of the libraries.

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