

---

## EVOLUTION OF TECHNOLOGY IN BRIEF -INTERNET TECHNOLOGY – ITS USE IN ACADEMIC LIBRARIES CENTRAL LIBRARY, SSSIHL AN EXAMPLE

K. Tata Rao

M. S. V. Rama Sastry

S. Chenna Reddy

### Abstract

*In an era of exploding information library professionals in Academic Libraries have a key role to play. They have to identify the shift in the paradigm and gear up to meet the new challenges by adopting Super Highway Technology Like the 'Internet'. This Paper Discuss the advantages of the 'Internet' and its impact upon Academic Libraries. The Practical application of e-mail, Internet and Other Electronic Media has been dealt in brief. Need of the use of Computers in Libraries has been stressed.*

**Keywords :** Internet Technology, Evolution of Technology, Academic Libraries, SSSIHL

### 1. HISTORICAL BACKGROUND OF TECHNOLOGY

The period middle of the 19th century and 20<sup>th</sup> century needs a special mention because the period marks the age of revolution with new modes of communication technology. Instead of 'paper' man made use of terminals, computers printers and other types of data communication devices. 'The use of paper', has been completely superseded by the Super Highway Technology. In this electronic age, academicians have come very close to non-book materials.

During 1990s, we had more justification for this feeling than any other generation. In the history of mankind so many technologies have emerged and all of a sudden compelling us to change ways of thinking. People have started recognizing the importance of Information Technology as an effective tool in satisfying the human needs. In efficient governance and in developing human resources, efforts are being directed towards improving the utilization of the scarce academic resources, thereby integrating the society globally. Telecommunication and computerization are being increasingly seen today as means to improve efficiency of operation. The quality of ' library service ' has vastly improved with the introduction of communication technology.

### 2. EVOLUTION OF COMMUNICATION TECHNOLOGY

Telecommunication plays an important role while designing an effective functioning of the on-line libraries. Digital technology, improved antennae systems and use of microcomputers have been instrumental in achieving a communication revolution. The recent trends in telecommunications are the use of and Internet technology and E-mail technologies. They accommodate a wide variety of multimedia communication services that are very popular in most developed countries and are now gaining importance in developing countries like India as well.

Advances in both telecommunication and computer technologies have facilitated the designing of new software thereby making the delivery of information quicker, convenient and efficient than ever before. It is fact that users feel increasingly comfortable with computers. The communication technology land line and satellite communication have made the world a 'global village '. In such a challenging situation academic libraries have to welcome not only e-mail, LAN and similar services but also Intranet and Internet services in their libraries.

### 3. OVER VIEW OF INTERNET

A world- wide communication system that links millions of computers has been developed. Such a network is called the Information Super Highway or Cyber Space most popularly known as the Internet. The Internet permits two way speech which allows millions of people to communicate by either sending messages through their computers or receiving messages from other computers all over the world .Internet in normal usage is a network of computers. In other words we can say that it is a network of networks. Internet made a humble beginning way back in the 1970s in the United States under the Department of Defence-Sponsoring a collection of computer network known as ARPANET. It connected about 64 computers providing admissions to researchers and commercial sectors. Within a span of thirty years, the system has considerably advanced in research and technology. It connects millions of people and shares information in different fields like agriculture, defense, transport, economics, sports, medicine, education and libraries. Although its popularity is spread over the developed countries, Internet has been only a recent development in India.

### 4. INDIAN EXPERIENCE

Just a few years ago that the public sector organization VSNL introduced Internet to the Indian community. At present approximately 4,00,000 commercial users have access through VSNL whereas from education and research communities 5,00,000 users have access through ERNET. So, around 10,00,000 Indian people are directly connected to the NET which is a small fraction of the total population of India. VSNL has been channelising the information particularly from the four International Gateways at Mumbai, Delhi, Calcutta, and Chennai. To give more access to E-mail and Internet, VSNL has installed new Gateways at Ahmedabad, Kanpur, Ernakulam, Jullandar, Bangalore and Hyderabad.

### 5. INFRASTRUCTURE NEEDED

To have admission to the Internet, specific equipment is required. Primarily the computer forms the backbone of the network. A personal Computer, a commonly used machine that is easily available can perform the task. Telephone lines form an important part with information passing through these lines and this facility can be availed of through additional payment to the telephone department. A device which is necessary to use the Internet is called Modem. The Modem sends/passes the information across phone from one computer to another computer. Now a days computer has become part of the Internet. One has to subscribe to an Internet Service Provider (ISP) which gives the user admission to the Internet. In India, the VSNL is the service provider that is connected to the webs of many popular countries including USA. VSNL has its main internet admission node in Mumbai. It also has various other remote admission nodes at Pune, Calcutta, Delhi, Bangalore and Chennai that link to the US Web through the main node in Mumbai.

PC 2.0 GHz

MB RAM

40 GB HD

Floppy drive 1.44 MB

CD ROM drive 52X

Key Board 104 keys

Mouse – optional –scroll

17" monitor

1 Printer (Dot matrix/Laser or inject

1 modem 56 kbps

1 telephone line

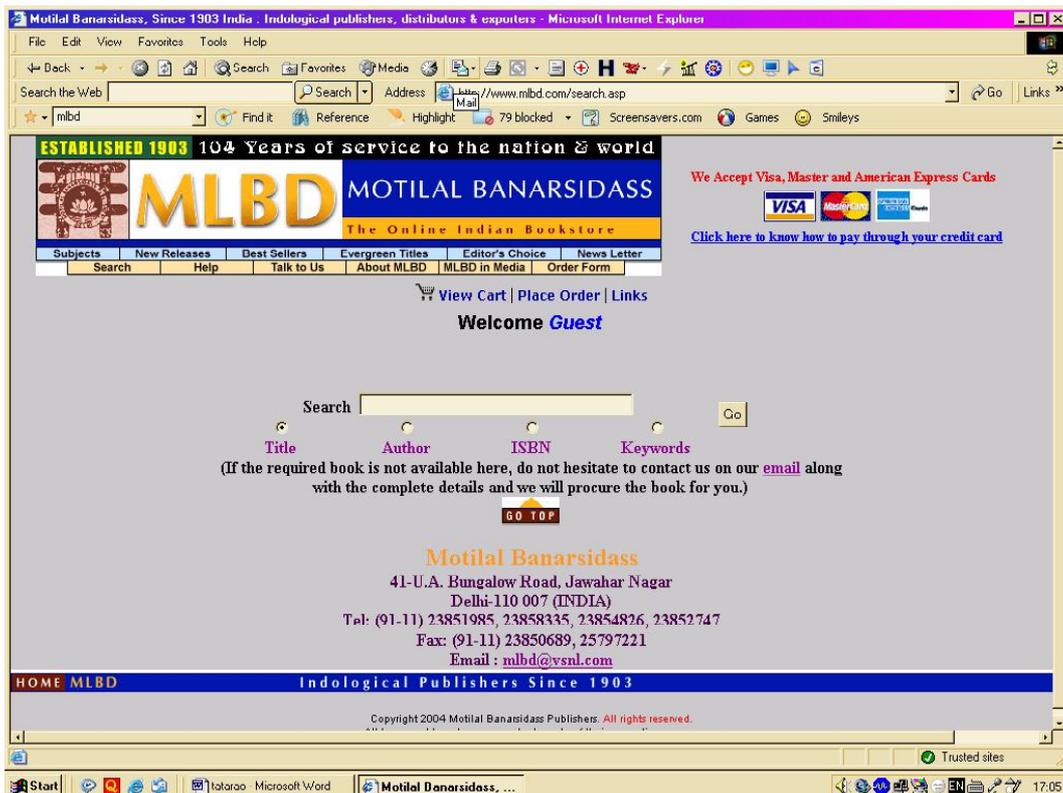
500 VA UP

## 6. INTERNET APPLICATION IN LIBRARY MANAGEMENT

For instance, when the Librarian in Sri Sathya Sai Institute of Higher Learning wishes admission to the Internet, the modem connected to the Library's computer establishes the link to the VSNL which automatically connects the Librarian to the main Web through the Internet admission node in Mumbai. The VSNL offers admission to the Internet for a reasonable fee. Once it gets connected to the service, a list of areas that he/she can use appears on his/her computer screen in the Central Library. For instance, topics like Sciences, Social Sciences, Humanities and Engineering subjects also will appear on the screen. Using the mouse the Library staff can click on any item of their interest and information on the particular subject will automatically appear on the screen. Penguin India, Foundation Books, Allied Publishers, Springer, Kluwer and other publishers are tied up in the web to help book lovers while placing orders for books and subscribing journals through on-line. Internet application – Technical section:

A subscriber/teacher/library staff can use the on-line catalogues for selecting recent editions of books. For example to find the information on recent publications on religion, philosophy and Indian culture the users can use the publisher's sites like :

- Motilal Banarsidas: [www.mlb.com](http://www.mlb.com)
- Indian Books Centre: [www.indianbookscentre.com](http://www.indianbookscentre.com)
- Munshiram Manoharlal: [www.mrmlbooks.com](http://www.mrmlbooks.com)



The Librarian can send an order via Internet whether to Penguin India or Informatics or any other related publisher and avail discounts too. It also provides instant information for library executives regarding the subscription of journals ; sending reminders for missing issues and informing payment clearances.

#### Internet application – processing section:

The senior library staff – SSSIHL opt internet search for classifying and cataloguing of books. The Assistant Librarian – cataloguing section takes advantage of the sites [www.oclc.org](http://www.oclc.org), [www.loc.gov](http://www.loc.gov) and [www.inflibnet.ac.in](http://www.inflibnet.ac.in) etc., for classification and cataloguing of books.Ex:

The screenshot shows a web browser window displaying the Library of Congress Online Catalog search results. The search criteria are 'Title = chemical abstracts' and 'SEARCH RESULTS: Displaying 1 of 48'. The record details include:

- LC Control Number:** 09004698
- Type of Material:** Serial (Periodical, Newspaper, etc.)
- Brief Description:** Chemical abstracts. [Columbus, Ohio, etc.] American Chemical Society. v. v. 1- Jan. 1, 1907-
- ISSN:** 0009-2258
- CALL NUMBER:** [QD1 A51](#) Set 2
- Request in:** Jefferson or Adams Bldg General or Area Studies Reading Rms
- Status:** v. 140, no. 12 pt. 1 2004 Mar 22 c.2 At Bindery - 08-11-2004  
v. 142, no. 25, pt. 1 2005 June 20 c.2 In Process 07-19-2005  
v. 142, no. 25, pt. 2 2005 June 20 c.2 In Process 07-19-2005  
v. 143, no. 1, pt. 1 2005 July 11 c.2 In Process 07-25-2005  
v. 143, no. 1, pt. 2 2005 July 11 c.2 In Process 07-25-2005  
v. 143, no. 2, pt. 1 2005 July 11 c.2 In Process 07-25-2005  
v. 143, no. 2, pt. 2 2005 July 11 c.2 In Process 07-25-2005  
v. 142, no. 24, pt. 1 2005 June 13 c.2 In Process 07-26-2005

#### Internet application – Reference section :

The Academic library especially at the University level associates with outstanding scholars who expect ready made information like SDI (selective dissemination of information). To satisfy them every librarian should maintain close contact with professional and non-professional bodies like INSDOC and INFLIBNET –INFONET etc., The staff should refer various types of information sources available on Internet. They may be commercial databases, open access databases, licensed databases and full text articles of journals.

For example the Reference librarian – SSSIHL expects the ON-LINE services offered by the INFLIBNET CENTRE, CAMBRIDGE UNI PRESS, SPRINGER VERLOG, EMERALD and EBSCO PUBLISHERS etc., . To ensure it, the library staff should refer the web sites [www.inflibnet.ac.in](http://www.inflibnet.ac.in) , [www.cambridge.org](http://www.cambridge.org) , [www.springeronline.com](http://www.springeronline.com) , [www.emdowns.com](http://www.emdowns.com) and [www.ebsco.com](http://www.ebsco.com) where the web pages pertain to the

world popular journals can be located on computer . Internet at present has become a multi-user facility with in the reach of the common scholar. It is launched by exercising the search engines which help the reader in the library while searching vast collections of files like education, industry, sciences, fine arts, music and trade etc., In case a reader spots certain information regarding biotechnology, he/she can download the online information across lease lines from a far away site to his/her computer.

To do so the reader has to first go through the different search engines like: National centre for biotechnology information: [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov); BIOSIS: [www.biosis.org](http://www.biosis.org); and Environmental science: [www.environlink.org](http://www.environlink.org) etc.,. In general if the Librarian types the referred protocol he/she gets a list of subjects preserved in the databases of either INSDOC, INFONET or private online service vendors. Similarly a web of on-line dictionaries in humanities gives a list of languages choices with translation, acronyms biographies etc. The full text information of 'Encyclopedia of Britannica is readily available at INFONET homepage [www.inflibnet.ac.in](http://www.inflibnet.ac.in). Likewise the world wide web of sports provides abundant information on sports of numerous types. There is another web site on photography with guidelines to take good pictures and handling cameras in special situations. Likewise in sciences, social sciences, humanities, engineering and other subjects the library professionals can browse the specific sites and collect the required information on hard copy or soft copy. Many academic librarians can now enjoy multi-faceted benefits of the internet.

## 7. ADVANTAGES IN BRIEF

Internet can be convenient and efficient in the context of desktop automation;

Internet is purely a paperless tool in the communication chain; Internet as network medium disposes of transmission delays imposed by geographical distance. Internet does not cost much; Internet can shrink social as well as geographical distance; Internet can support and sustain academic interests of the research community.

## 8. CONCLUSION

Internet is growing exponentially worldwide and India is no exception. There is no doubt that the use of Internet has increased the efficiency of Librarians today. It has altered the nature of library professionals while deploying on-line services in their regular functioning. It has opened the doors of the vast information resources. Internet access by librarians preferably at university level will provide better services by means of reference services, resource sharing, Inter-Library-Loan, book purchase and journals subscription etc.,. Various types of users like students, teachers, technologists and commercial vendors access the information for the success of their academic tasks.

## 9. REFERENCES

1. Fazzalidin, S. I. 'The information search on Internet for library services', IASLIC Special Publication, No.37 XXI All India Conference 26-29, Dec 1997, pp. 10-14
2. Rajya Lakshmi : 'Internet utilities and services with reference to Bitechology and environment web sites', IASLIC Special publication, no. 37, XXI All India conference 26-29 Dec 1997, PP 134-140
3. Tata Rao, K. 'E-Mail service in Academic Libraries, The Hindu Dt.16.12.1997 , P.26

---

**ABOUT AUTHORS**

**Dr. Tatarao, K.** (b.1954) obtained the degrees Master of Commerce and Master of Library & Information Sciences from Andhra University. He has been awarded the Degree Doctor or Philosophy in Library Science from Andhra University. Currently he is working as University Librarian I/c in Sri Sathya Sai Institute of Higher Learning(Deemed University) Prasanthinilayam. He has been closely associated with the Librarianship for the last 22 years. He is a sincere researcher and devoted scholar. Half a dozen of his research articles have been published in the books and in the highly reputed journals. He was conferred with National Award entitled 'IASLIC Dr.S.R.Ranganathan Award in 1997' against his excellency in articulation.

**E-mail :** tatarao17@yahoo.com

**Sh. M S V Rama Sastry** is currently working in Central Library, Sri Sathya Sai Institute of Higher Learning (Deemed University), Prasanthinilayam, Andhra Pradesh.

**E-mail :** ramasastrydatta@yahoo.com

**Sh. S. Chenna Reddy** is Currently working as a Librarian in Sri Annamacharya Institute of Technology and Sciences, Rajampet, Cuddapah, Andhra Pradesh.

**E-mail :**