Twelfth
Dr S R Ranganathan Memorial Lecture
(12th August 2014)

Libraries and Information Services:
Challenges Ahead

DR. RAVINDER KUMAR CHADHA
Additional Secretary
Parliament of India
Lok Sabha Secretariat
Parliament House, New Delhi

I thank Delhi Library Association for inviting me to deliver 12th Dr. S R Ranganathan Memorial Lecture on his Birth Anniversary. The Father of Library Science in India, Dr. S R Ranganathan’s contributions are more relevant today in this IT era. He had not only invented sound Library techniques but also stressed on the quality information services to be given to the User Community in a Library. Today, Computer Scientists are finding the principles given by Dr. Ranganathan more relevant for automation as these are based on strong logics.

Dear friends, our Indian Library and Information Science Schools are giving more stress on Library techniques than Library services. We have to understand the importance of services to be given to our user community. Users may not be concerned about the technique being used by us. For example, while making Google search we do not want to understand how Google has developed such a strong Search engine. We are concerned about the speed and quality of Search. We have to keep in mind that Library is a Service Organisation and service to the users is our prime concern in the present era.

Friends, the world is in the throes of a new and highly potent revolution. This revolution has changed the way we live, work, play, organise our societies and ultimately define ourselves. Unlike previous revolutions, which were focused on energy and matter, this fundamental change involves our understanding of time, space, distance and knowledge. The dramatic acceleration in the development and use of information and communication technologies (ICT) during the last few years has set in motion a world-wide
process towards the “Information Society”. The depth and non-linearity of this process seem to have much greater social, economic and cultural implications for population than the industrial revolution of the past. Business, education, training, research, entertainment - indeed, all aspects of life – are increasingly affected by electronic networks and multimedia technologies, which are opening up new opportunities and challenges for all.

The complexity and interrelation of today’s world problems defy traditional explanations and solutions and require a fully new approach, which must be both comprehensive and interdisciplinary. Moreover, individuals, groups and communities will need to develop not only new tools of analysis but also very different thinking and attitudes in order to adapt to the emerging “new” civilization based on information and knowledge.

In information society in which the creation, distribution and manipulation of information is a significant economic and cultural activity. The knowledge economy is its economic counterpart whereby wealth is created through the economic exploitation of understanding. Information society is seen as the successor to industrial society. Information is a most valuable resource in an information Society; thus acquiring and using information are critical activities. The process known as information seeking is therefore becoming more fundamental and strategic for intelligent citizenship. “Information is anything that change a persons knowledge”. Information seeking is a process in which human purposefully engage in order to change their state of knowledge. The primary activities of scientists, physicians, businesspersons, and other professionals are gathering information from the world, mentally integrating that information with their own knowledge - thus creating new knowledge - and acting on this new knowledge to accomplish their goals. Information is critical to the growth, progress and prosperity of any nation. We have seen the tremendous progress in IT, which tends to be a convergence of several technologies – computing, telecommunications, electronics and multimedia. Amongst these, particularly notable is the development of the Internet with its related technologies.

Information technology affects personal information infrastructures at all levels. Most obviously, technology affects the material resources of our personal information infrastructure by presenting new objects (e.g., computers disks) to purchase and manipulate. To acquire new information, we use online Journals databases, electronic bulletin boards,etc. Indeed, sources of information are increasingly made available only in electronic form. The physical changes that IT brings are highly dependent on material wealth and moderately dependent on individual ability.
This fast growth of the Internet and its accompanying business is due to the rapid advancement in access to technology, processing power, storage capacity, and bandwidth. The integration of the key enabling technologies that form IT produces new fast-growing industries, services industries and services that need to adopt this new technology both locally and internationally. In this demanding environment, a new breed of managers and technologists who understand Information Technology will be greatly required.

A key feature of living in an information society is managing the many resources that technology has enabled. We find ourselves interacting with complex, electronic environments to generate, store, manipulate, access, and use information resources. Electronically augmented personal information infrastructures affect us physically, cognitively, and emotionally. Physically, they cause us to use fewer large motor movements and more small motor movements; to be more sedentary - sitting, typing, reading from screens, subvocalizing - rather than actively moving from place to place, manipulating objects, and vocalizing commands and responses. In many ways, working with electronically augmented personal information infrastructures gives us a mechanical advantage, providing faster access to larger amounts of information.

For developing the transition economies, ICT can provide a means to leapfrog some long and painful stages in the development process, and help to stimulate growth and prosperity. The primary tool for information Society is networked computer. It is time for us to work together with library scholars and other professionals in order to fulfill the role and functions of modern information centres to meet the challenges of this fast moving world. I believe that libraries should act as a dynamic engine for the knowledge and information society. This is to be the mission of library professionals in the new era.

2 INFORMATION SERVICES PROVIDED BY LIBRARIES

All libraries provide information services. National libraries offer bibliographic information, University libraries do meet information needs of students, faculty and researchers, Public libraries help their users in daily-life and Special libraries have distinctive target groups, whose information needs they try to cover.

With the growing number of books and other printed items and the emerging of other media such as microforms, videos, audio-materials, CD-Rom and online-resources, librarians have had to broaden their competencies. They have developed new research abilities and integrated new media into
their collections but these systems and software applications are still to be defined and mastered by the librarians. Users need librarians to find their way through the sometimes-labyrinthine libraries.

A conservative librarian might see the ICT and new IT based resources as just one more medium to be integrated into already existing collections. This would be a mistake. The ICT has an increasingly powerful influence on the presentation and use of information and therefore demands for changes the ways information services are managed by librarians. The libraries and information centres have to change direction and diversify in order to adapt to the threats and challenges posed by the ICTs, consumer online, interactive television services and the like - in other words these have to redefine their roles in Information Society.

To look into the future of Libraries and new services to be provided let us draw analogies from other institutions, which may share intersecting and interesting connections with libraries. To provoke thought let us look into banking, once the paragon of conservatism and resistance to change. Remember banker’s hours? Twenty years ago banks were remarkably insensitive to client needs. They made it very difficult to deposit money, withdraw cash or make loans. They were open few hours - a few inconvenient hours, which made them nearly impossible for working people to access. What happened? Banks were forced to change by the arrival of new technologies, de-regulation and a marketplace driven by client demands for convenience, quality and customization. Let me ask you, when was the last time you actually walked into a bank to deposit funds or cash a check? A large percentage of banks now offer 24-hour services, which include deposits and withdrawals at countless convenient ATMs. Most employers offer automatic electronic deposits of salarychecks. To find a balance or check an account, one calls an 1600 number and punches in some code numbers or log on to the bank web site. Many people find they have much greater and more convenient access to banking services without setting foot inside a bank itself. The information was relatively scarce during the 1980s, it was “housed - usually in the form of books - in the libraries. The operating paradigm for such libraries was centralization. Researchers and students left their normal places of reading and thinking (homes, workplaces and classrooms) long enough to “withdraw” information - usually in the form of notes or photocopies- that could be consumed elsewhere. Access was relatively limited for some of the same reasons that bankers’ hours caused difficulties.

Let me take another example. You might have come across a number of online news alert services like google alert, samachar.com, Indiatimes.com. These services give the option to register with them on specify subject area of
ones interest. Their software will scan all the selected newspapers and pick up stories on the topics specified by an individual. All the relevant stories will be forwarded to the individual either through e-mail or can be seen on the screen the moment one opens the Computer. I do subscribe to 2-3 newspapers for reading over morning cup of tea. However, I depend on the following two sources for the detailed news:

- Samachar.com, google alert, etc.
- Newspaper clippings selected by the Parliament Library staff.

I have purposely taken the examples of banking services and online news services to demonstrate how we can make use of IT in modernising our services.

3 NEW CHALLENGES

Information has become a business. A lot of money has been invested in the expansion of the Internet, multimedia, development and electronic publishing. Libraries have to compete and sometimes fight for budgets. They seek to do business on new terms with database vendors, electronic publishers and commercial service providers. The new copyright laws could have severe consequences for library activities. Libraries are no longer setting the rules of information storage and retrieval. They are only one stakeholder in a large field. Let us see the challenges being faced by the librarians?

**Change of information needs**: The users need more precise current and factual information and they need it fast.

**Change of information habits**: The users especially the younger users are more comfortable with digital resources than printed bibliographies or traditional Publication.

**Openness**: The ‘library without walls’ is not just a term. Via Open Public Access Catalogue and homepages, libraries become more visible and accessible than ever before.

**Networking**: It is no longer important what a library has in stock, but ever more important to what sources a library can provide access.

About ten years ago, libraries had a collection ‘Just in Case’: Should someone ask for a certain subject, there would be a stock of carefully chosen books, bibliographies and other materials readily available. Five years ago, libraries began to work ‘Just in Time’: Since then, upon request, the best and most up-to-date materials are gathered to answer the demand. Today, we are
heading towards service ‘Just for You’: Knowing the customer and his or her information needs, librarians will provide tailor-made services.

Let me go back little into the history of impact of IT or Library Services. It was till 80s and early 90s we were busy in automating the work, which was earlier being done manually i.e. acquisition, processing, circulation, periodicals management, CAS, SDI, Bibliography preparation, indexing, etc. It was during 90s with PC revolution, development of high speed LAN, growth of Internet and Internet based Services the professionals started thinking of news Services. Let us see how Libraries have progressed over the years.

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4 THE INTERNET

When what we call the Internet first appeared, it was basically a communication tool for the scientific community. Born as a project by the US-military in the late 60s to ensure the ability to communicate in the case of a nuclear war, it soon became the workplace and playground for scientists and computer freaks. Personal Computers were too weak to allow participation in the Internet. In the early 90s, rumors started to spread ‘Unlimited access to information is available.’ ‘It only takes a PC and a modem.’ ‘Total communication around the globe is now possible.’ Public magazines started to write about the Internet. Still, some knowledge of Unix commands was needed to use services like Archie, Gopher or Veronica, all already ancient history for recent users of the net.
It was the WWW, which changed the picture in a way nobody had imagined. The integration of graphic elements and user-friendly interfaces made the Internet attractive and accessible for many people. Companies saw the possibilities of commercial applications and invested heavily in dot com business. Today, nearly everybody and everything is available on the web. An email address is a must for every professional and many people have private homepages. In India, all-important institutions have a website and a great many companies too. Libraries are no exception.

The Internet allows institutions to present their aims and mission to a large audience without significant costs for printing and mailing. Scientists can publish their work directly on the net. Libraries can open their catalogues and services to the public in a way that is cheap and easy, at least in comparison to printed catalogues or commercial databases.

The Internet, not only opens a new dimension in communication between libraries and their users, but also between the library and the information community. The answer to many questions is ‘somewhere out there’. An expert for any given subject might be just a mouse click away.

Information services might still be based on a reference collection; books and other media, bought ‘Just in Case’. But more and more answers can be found ‘Just in Time’, and for free, on the web. The next logical step would be to integrate WWW sites into ‘Just for You’, tailor made information services.

5 QUALITY OF SERVICE

The international norm ISO 8402 defines: “Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied need.” A proverb says: beauty is in the eye of the beholder. Quality of information services is equal to the perception of quality by the customer. Therefore, librarians have to know the customers and their information needs.

To ensure good quality information services, the library must establish and clearly communicate quality standards. These standards include the accuracy and reliability of the information and some of these should be measurable, such as how long it takes to deliver a document, or how many demands for information could be answered within the same day. Benchmarking is also important to ensure quality and the Internet provides abundant material for benchmarking. The key to the evaluation of quality is the direct feedback of the customers. The Internet helps to establish and maintain a relationship with the customer. A survey is much easier to conduct via email than by printed questionnaire. The number of pageviews on websites is a direct indication of
the quality of the site. Advanced software allows one to track the visitor’s path through a complex website thus enabling the librarian to see the document through the customer’s eyes.

6 INDEXING THE INTERNET AND VIRTUAL LIBRARIES

Anybody who uses Internet is aware of their shortcomings of searches through search engines: Huge numbers of hits, many of them off-topic or outdated. Some engines established ‘home-grown’ classification schemes for the WWW, a dubious approach, which leaves these services far behind in covering the net. Today, it can take nine months or more until a new site is registered.

Librarians have expert knowledge to provide answers to the dilemma of too many pages and poor research tools. If we want to make Internet-resources usable for our users, we have to choose, to evaluate and to index the material in fact, do what we have always being doing. The virtual library of the not-so-distant future will provide access to printed matter both in the library’s own collection and elsewhere, as electronic publications and WWW links. Information professionals could provide thesauri and guidelines for bibliographical description on the Internet.

Librarians are concerned with the political implications of information, such as freedom of access and the diversity of the Internet. Many people complain about the English language dominating the net. With the growing number of web users outside the Anglo-American world, there is demand for websites in all languages. Librarians can encourage this variety by collecting and providing pages in languages other than English.

7 SUCCESS FEATURES

There are many ways to make the Internet useful for library’s information service

- Establishing a homepage having information about the library and the services.
- Providing links to a collection of electronic texts, online databases/journals and other Internet resources.
- Subject Gateways, Library portals.
- Providing information about events like discussions, conferences and seminars.
- Giving information about job-opportunities.
• Document delivery.
• Library Calendar, FAQs, online Reference Service
• Communicating with users via email or listservs
• Feedback service

8 CONCLUSION

In the first euphoria about the potential of the Internet, some people feared (or hoped), that libraries and librarians would no longer be necessary. As we know today, this concern has not materialized. Librarians are even more necessary today as navigators in the ocean of available information. As many surveys show, users trust librarians to help them find the information they need, and many of them take their first steps into the Internet in a public or university library. The Internet, for librarians, is more than merely a tool; it has fundamentally changed the library and opened new horizons for networking. There are fascinating possibilities librarians should explore.

The libraries will continue to play a crucial role as gateways to information resources, including those on the global superhighways.” The components linking the studies, underpinning the Information Society movement, are the outputs of the union of information and communication technologies and their rapid diffusion, epitomised by the Internet. It is my view that current trends have the makings of a social revolution, perhaps much more than Industrial Revolution, but very different. The Industrial Revolution was about using mass resources to deliver high returns to a few.

In the near future, libraries will be occupied with a multiplicity of issues similar to those evident today. These issues include: the production of ever-increasing amounts of diverse collections in a variety of print and electronic formats; selecting and purchasing collections with competing demands and under fiscal constraints; making these and other collections physically and virtually accessible; and preserving existing print and digital collections. While libraries are grappling with these issues, continuous change in the areas of publishing, scholarly communication, and technology will compound the existing problems. This rapid change is a challenge because libraries are required to adapt to it while also being asked to remain the same. How then can libraries still fulfil their mission to serve their users, be they the general public, students, teachers, researchers or professionals?
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DR. RAVINDER KUMAR CHADHA

DELHI LIBRARY ASSOCIATION
RANGANATHAN BHAWAN
‘C’ BLOCK COMMUNITY CENTRE, NARAINA VIHAR
NEW DELHI-110028
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To perpetuate the sweet memory of its Patron, the EC of Delhi Library Association decided to institute a Memorial Lecture Series in the name of Dr S R Ranganathan. The inaugural lecture was delivered by Prof M P Satija (Amritsar). The Second Lecture was delivered by Dr P S G Kumar (Nagpur). The third one was delivered by Prof B Guha (Delhi). The fourth lecture was delivered by Dr A Ratnakar (Bangalore). The fifth lecture was delivered by Smt. Kalpana Dasgupta (Delhi). The sixth lecture was delivered by Padmashri Prof P N Kaula (Lucknow). The seventh lecture was delivered by Dr Jagdish Arora (Ahmedabad). The eighth lecture was delivered by Dr S Majumdar (Delhi). The ninth lecture was delivered by Dr V Venkatappaih (Tenali). The tenth lecture was delivered by Prof Krishan Kumar (Delhi) and eleventh lecture was delivered by Dr (Mrs) Shashi Prabha Singh (Delhi)
Dr. Ravinder Kumar Chadha is presently working as Additional Secretary, Parliament of India, Lok Sabha Secretariat. He oversees the work of Parliamentary Committee on Defence, Parliamentary Committee on Welfare and Parliament Library, Research & Information Service. His contribution in planning, design and construction of most modern, High-tech Parliament Library Building and computerization of various activities of Indian Parliament are well known.

Dr. Chadha has to his credit nearly 37 years experience of working with institutes of national and international repute including The British Council; National Institute of Design (NID)-Ahmadabad; ICRISAT- Hyderabad and National Informatics Centre (NIC)-New Delhi. He has contributed more than 60 scholarly papers in journals, conferences, seminars, etc.

A widely travelled person, Dr. Chadha has been actively contributing at national and international level. He has been associated as a Member of Working Group on Digitization, Ministry of Information Technology 2007-13; Governing Board of INFLIBNET. He had visited USA during 1993 and 2002 under International Visitor Exchange Programme (IVEP) of USIS and had been to Belgium, Denmark, France, Germany, Iran, Japan, Thailand, The Netherlands, Sweden, Singapore, UK, etc to interact with Professionals and attend International Conferences.