

Full Length Research Paper

Shortage of ICT infrastructure as a challenge to resource sharing in Indian public libraries

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Information and Communication Technology has revolutionized the concept of libraries. IT has almost converted the world into a global village. Libraries are also changing to meet the demand put on them. The new generation whose demand for information is never met is always demanding that traditional libraries should be developed as a well equipped and interconnected as computerized libraries. Public libraries are the need of society in order to educate the common people about their rights and duties and spread the environment of democracy and inculcate the values and culture among the people. One may find this library at every level like national, state, regional and district level. It serves the every common citizen living in the urban or rural areas. The people who are living in the villages may get benefit from the public libraries in order to update the information about their country's development and technological changes. The information and communication technology has played a vital role in the library sector. The application of ICT is so much essential for public libraries because these libraries are carrier of information which is useful for the common people.

Key words: Information and Communication Technology (ICT), Public Library, e-governance, e-learning, resource sharing.

INTRODUCTION

Information communication technology (ICT) refers to technology that transmits, stores, creates, displays, shares, or exchanges information by electronic means. Libraries and librarians must adopt ICT to be a successful part of the information environment (Ungern-Stran and Lindquist, 1995). ICT has brought radical change to libraries in India, but this change is not seen uniformly across the public libraries in the country. Public libraries need to forge partnerships in establishing online information sharing networks. Enabled by technology, resource sharing is the only hope for the future. ICT includes the information technology, telecommunication, broadcast media and all types of audio and video processing and transmission. The information technology and communication technology came together for effective control on information and their use and thus the concept of information and communication technology came into existence. Information and communication technology may support the activities of public library

whose aim is to collect and disseminate information on each and every subject fields related to the country's development for the general public and information seekers. The development of technological tools and techniques has extended the activities of public library. Therefore the public libraries are playing a great role in the country's programme for development and national reconstruction in the spread of education, dissemination of information, utilization of the leisure time in useful activities and in programmes for over-all socio-economic development. The impact of information and communication technology has made revolutionary changes in the field of library and information services. The public libraries have also been implementing the tools and techniques of information and communication technology in order to disseminate the required information to the information seekers living in the rural areas and spread the literacy and education among the citizens.

ICT applications: benefits in all aspects of public life

ICT applications can support sustainable development, in the fields of public administration, business, education and training, health, employment, environment, agriculture and science within the framework of national e-strategies. This would include actions within the following sectors:

E-government

- Implement e-government strategies focusing on applications aimed at innovating and promoting transparency in public administrations and democratic processes, improving efficiency and strengthening relations with citizens.
- Develop national e-government initiatives and services, at all levels, adapted to the needs of citizens and business, to achieve a more efficient allocation of resources and public goods.
- Support international cooperation initiatives in the field of e-government, in order to enhance transparency, accountability and efficiency at all levels of government.

E-business

- Governments, international organizations and the private sector, are encouraged to promote the benefits of international trade and the use of e-business, and promote the use of e-business models in developing countries and countries with economies in transition.
- Through the adoption of an enabling environment, and based on widely available Internet access, governments should seek to stimulate private sector investment, foster new applications, content development and public/private partnerships.
- Government policies should favour assistance to, and growth of SMMEs, in the ICT industry, as well as their entry into e-business, to stimulate economic growth and job creation as an element of a strategy for poverty reduction through wealth creation.

E-learning

- Everyone should have the necessary skills to benefit fully from the Information Society.
- Therefore capacity building and ICT literacy are essential. ICTs can contribute to achieving universal education worldwide, through delivery of education and training of teachers, and offering improved conditions for lifelong learning, encompassing people that are outside the formal education process, and improving

professional skills.

- Develop domestic policies to ensure that ICTs are fully integrated in education and training at all levels, including in curriculum development, teacher training, institutional administration and management, and in support of the concept of lifelong learning.
- Training of information professionals should focus not only on new methods and techniques for the development and provision of information and communication services, but also on relevant management skills to ensure the best use of technologies.
- Training of teachers should focus on the technical aspects of ICTs, on development of content, and on the potential possibilities and challenges of ICTs.
- Promote international and regional cooperation in the field of capacity building, including country programmes developed by the United Nations and its Specialized Agencies.
- Launch pilot projects to design new forms of ICT-based networking, linking education, training and research institutions between and among developed and developing countries and countries with economies in transition.
- Volunteering, if conducted in harmony with national policies and local cultures, can be a valuable asset for raising human capacity to make productive use of ICT tools and build a more inclusive Information Society. Activate volunteer programmes to provide capacity building on ICT for development, particularly in developing countries.

E-health

- Promote collaborative efforts of governments, planners, health professionals, and other agencies along with the participation of international organizations for creating a reliable, timely, high quality and affordable health care and health information systems and for promoting continuous medical training, education, and research through the use of ICTs, while respecting and protecting citizens' right to privacy.
- Facilitate access to the world's medical knowledge and locally-relevant content resources for strengthening public health research and prevention programmes and promoting women's and men's health, such as content on sexual and reproductive health and sexually transmitted infections, and for diseases that attract full attention of the world including HIV/AIDS, malaria and tuberculosis.
- Encourage the adoption of ICTs to improve and extend health care and health information systems to remote and underserved areas and vulnerable populations, recognising women's roles as health providers in their families and communities.

- Strengthen and expand ICT-based initiatives for providing medical and humanitarian assistance in disasters and emergencies.

E-employment

- Encourage the development of best practices for e-workers and e-employers built, at the national level, on principles of fairness and gender equality, respecting all relevant international norms.
- Promote new ways of organizing work and business with the aim of raising productivity, growth and well-being through investment in ICTs and human resources.
- Promote teleworking to allow citizens, particularly in the developing countries, LDCs, and small economies, to live in their societies and work anywhere, and to increase employment opportunities for women, and for those with disabilities. In promoting teleworking, special attention should be given to strategies promoting job creation and the retention of the skilled working force.
- Promote early intervention programmes in science and technology that should target young girls to increase the number of women in ICT carriers.

E-environment

- Governments, in cooperation with other stakeholders are encouraged to use and promote ICTs as an instrument for environmental protection and the sustainable use of natural resources.
- Government, civil society and the private sector are encouraged to initiate actions and implement projects and programmes for sustainable production and consumption and the environmentally safe disposal and recycling of discarded hardware and components used in ICTs.
- Establish monitoring systems, using ICTs, to forecast and monitor the impact of natural and man-made disasters, particularly in developing countries, LDCs and small economies.

E-agriculture

- Ensure the systematic dissemination of information using ICTs on agriculture, animal husbandry, fisheries, forestry and food, in order to provide ready access to comprehensive, up-to-date and detailed knowledge and information, particularly in rural areas.
- Public-private partnerships should seek to maximize the use of ICTs as an instrument to improve production (quantity and quality).

E-science

- Promote affordable and reliable high-speed Internet connection for all universities and research institutions to support their critical role in information and knowledge production, education and training, and to support the establishment of partnerships, cooperation and networking between these institutions.
- Promote electronic publishing, differential pricing and open access initiatives to make scientific information affordable and accessible in all countries on an equitable basis.
- Promote the use of peer-to-peer technology to share scientific knowledge and pre-prints and reprints written by scientific authors who have waived their right to payment.

Public Library Services in India

Ever since human civilization dawned on this globe of ours, library i.e. 'instrument for storing of knowledge' in some form or other though not in the present shape, existed. Libraries were in existence even in the pre-historic days both in our country and abroad but with the advent of the European education and culture libraries in its present form emerged as an inalienable element of our present education system. And with the passage of time in the post colonial and post independence days, the concept of library and librarianship has undergone vast changes and to reach this present stage it has to pass through many a curve and contour, nay to pass through many a phases.

The first significant date in the development of public libraries in India is 1808 when the Bombay Government initiated proposal to register libraries which were to be given copies of books published from the 'Funds for the Encouragement of Literature'. By the middle of the 19th century, three presidency towns of Bombay, Calcutta and Madras had their public libraries founded mostly with the active support and initiative of the Europeans for these towns. The second phase in the story of the library movement in our country lasted from the beginning of the 20th century to 1937. The first stage of library movement was remarkable for the official backing and patronage of scattered libraries here and there; the second phase was characterized by the Indian intelligentsia taking up the cause of libraries. The third phase of the library movement began in 1937 when the Congress came to power in many provinces. This phase was really a synthesis of the previous two phases. The main trend of this phase was setting up of village libraries through governmental effort. Assam, Bihar, Bombay, Orissa, Punjab, Cochin and some other provinces and states set

up village libraries even travelling libraries. It is estimated that in 1942 there were 13000 village libraries in India.

The fourth phase of the Indian Library Movement may be described as one of consolidation - consolidation with a view to husbanding our sources so as to yield a library service to the maximum number of people. Three epoch making events took place since Independence in the arena of library services of our country in between 1948-1951. The most sensational and monumental event of these three was the enactment of Madras Public Libraries Act, 1948 which was the first concerted effort in India to institutionalise, structure, otherwise, co-ordinate and organise public library services. The second event which was not less conspicuous than the first one was the setting up of the National Library in 1948 by an Act from the old Imperial Library and the third one was the setting up of Delhi Public Library at the initiative of the UNESCO in the year 1951. The fourth phase of the Indian Library Movement may be described as one of consolidation with a view to husbanding our sources so as to yield a library service to the maximum number of people. The fifth and the most remarkable phase of the library movement in our country is the year 1972 when the Raja Rammohun Roy Library Foundation was established by the Government of India, in memory of the great social reformer, Raja Rammohun Roy, who stressed the need for the modern education for the progress of the nation. The Foundation was established to spread library services all over the country in active co-operation with State Governments and Union Territory Administrations and Voluntary Organisations (NGOs) working in the field ; it was created to give an ever-lasting push to the library movement in the country.

Rationale for ICT in Resource Sharing

Hogan and Dahlbach (1997) surveyed Association of Research Libraries (ARL) Institutions to measure the degree of electronic resource sharing. The findings showed that the most frequently cited motivations to share were "enrichment of resources available to all participants" (97 percent) and cost (37 percent). Ungern-Sternberg and Lindquist (1995) elaborate on advantages of electronic documents:

1. Some documents are more useful in an electronic form due to enhanced search ability and manipulability.
2. Electronic form is sometimes the only alternative, so it represents a net increase in the information base.
3. Economic in Storage: the increase in cost for keeping printed materials makes electronic forms more attractive from an economic viewpoint.

The introduction of ICT in resource sharing, has brought about a great transformation from the traditional approach to a modern approach. Public libraries entrusted with the heavy task of providing readers with

the latest or current and retrospective materials apart from improving their inter-library loan service, should take a number of wide-scale measures to improve and reinforce international cooperation in the area of exchange of publications and international lending services. For instance, the online catalogues of collaborating libraries can be combined to create a "union catalogue" of holdings for multiple libraries, and added components can be configured to interface with the other libraries to enhance resource sharing. Tanvir (2005) corroborate this: Exploration of new means of resource sharing can help overcome the financial constraints faced by most of our libraries and information centres. In this age of information technology, we can go for new concepts and ideas which will ultimately open new vistas of knowledge. Digitization of libraries would ultimately reduce our dependency on physical presence during particular hours.

Networking of Public libraries

The public libraries in the west have developed into a true community information and reference systems with such computerized data access and facilities for providing a variety of information to the general public from housing and social security to legal and medical aid and temperature and travel schedule.

In India, development of public libraries has not been a priority and their growth as a result has been uneven. Public libraries which could serve as the backbones of literacy mission, suffer for want of adequate funds, trained staff, modern equipment, good and adequate collections, proper reading rooms and stacking and user facilities. In order to provide to the public, access to the latest information and educate them, public libraries have to be technologically advanced so that they have access to INTERNET and international databases and networks. According to UNESCO public library Manifesto 1994 (Revised) "The public library acts as a living force for education, culture and information and as an essential agent for the fostering of peace and spiritual welfare through the minds of men and women". The Manifesto recommends that "The public library network must be designed in relation to national, regional, research and special libraries as well as libraries in schools, colleges and universities". So there is a need to establish a public library network which is in conformity with the other networks in the country. Due to lack of up-d-date, actual number of public libraries could not be ascertained, however, nearly about 60,000 exist in the country. They can't be called libraries in the real sense as most of them are simply reading rooms. Most of them are without computers and the librarians working in the distances in general, are not conversant with the application of computers in libraries. Training of library staff in the

computer applications for library operations and services becomes one of the basic requirements of automation and networking.

In the rural areas, as rural settlement are generally scattered and their libraries are neither up-to-date nor well staffed. Since the level of users is not of a high standing and also various problems in information infrastructure, it is not possible in the first phase to connect rural libraries with the public libraries network for networking purposes. However, with the wide use of telecommunication technology, it is possible for institution located in remote area to join the network. Therefore, we notice that if the public libraries are to really reach the public and achieve the status of national network system, the adaptation of new sophisticated techniques and technologies is a highly important pre-requisite. We must change with the times and learn from the latest trends in the west. For this, we have to develop the infrastructure of public libraries and give attention to the manpower development, training given in the use of computers, AACR-II, use of MARC format Library Congress subject headings, handling of software, etc. and use of electronic mail and INTERNET.

Review of Literature

Battin (1980) notes that, "if we are to acknowledge openly our acceptance of the responsibility for the health of national scholarship, we must channel our energies in the design and development of effective cooperation activities at the national level." Libraries engage in resource sharing because no single library can meet all the needs of its community. That is why Song (2000) asserts that: No library can effectively satisfy its users from the resources within its walls. We are living in a time where a library's worth is increasingly being measured by the services it offers in terms of helping clients to access universal information rather than its respective collection.

Efforts at efficient resource sharing in India seem to have come to naught. This is tied to the inadequacy of existing resources, lack of information about them, inadequate security of materials, uncooperative attitude of parent bodies, lack of policies, inflation, and unstable budgetary allocation (Vervliet, 1979; Banjo, 1984; Edoka, 2000; Nwazuoke, 2001 and Ejedafiru, 2003). These problems are worsened in the traditional mode of resource sharing where ICT is not applied. The changing face of information services and the slow pace of adaptation in India creates a problem for future collaboration. Librarians require both theoretical and practical knowledge of information technology (Nwalo, 2000). Libraries must build up the necessary infrastructure to promote resource sharing.

Currently, library assessment focuses more on outcomes or "the ways in which library users are changed

as a result of their contact with the library's resources and programmes (Ackerman, 2007). There is evidence that public librarians use technology to obtain information not available within their own libraries. The issue is, will resource sharing activities made possible by ICT make public libraries obsolete or enhance their role in networked environment? In the apt words of Tinio (2002): ICTs greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunity to enhance educational systems, improved policy formulation and execution and widen the range of opportunities for business and the poor. One of the greatest hardships endured by the poor, and by many others who live in the poorest countries is their sense of isolation. The new communication technologies promise to reduce that sense of isolation and to open access to knowledge in ways unimaginable not long ago.

Indian libraries need access to a larger range of information resources through sharing networks. As resource sharing moves into the spotlight, scholarly materials are provided from remote sites as efficiently as they could be from local libraries. Research likewise suggests that when considering building library collections and more physical infrastructure, the cost savings from sharing resources and the social price of not providing access, ICT is attractive and necessary. The role of libraries has been challenged by Google, Yahoo, subject portals, digital libraries, and open access repositories (Haravu, 2007). These services use new methods to acquire, analyse, display, and organize information and are undoubtedly a threat to the traditional role of libraries and librarians.

METHODOLOGY

This research is based on information gathered by the researcher through direct observation of facilities and interviews with the reference librarians in two Public libraries. The criterion used for the selection of the libraries was proximity.

District Central Library, Salem

The district central library Salem has acquired about minimum computers, indicating that it is making an effort to use ICT for resource sharing. The library cannot be said to be involved in resource sharing arrangements now, because the ICT facilities are not in place to carry out such duties.

District Central Library, Coimbatore

The District Central Library, Coimbatore has around very

less computers connected to the Internet. In the course of the interview, the reference librarian noted that the library is doing everything possible to install communication systems like the telephone and the telex. This will make effective communication between libraries easier. The librarian also noted that up to this point, the library has not been automated, though there are urgent plans do so in the near future.

CONCLUSION

The main reason why the public library movement has not yet reached the take-off stage is the acute paucity of funds. It was suggested by a committee of expert that 10% of the education budget should be earmarked for the development of Public Library system in a state. We require more funds because the number and variety of documents being published both in our country and abroad has multiplied phenomenally. None of the libraries under study are fully using ICT for resources sharing. Much remains to be done by Indian libraries to enhance resource sharing services. The two reference librarians unanimously agreed that the reasons for the failure of resource sharing in their libraries were poor communication infrastructure, negative attitude to automation, not being technically ready, lack of cooperative spirit, inadequate photocopy services, slow document delivery system, inadequate funds, lack of policy, and lack of union catalogue. The public librarians unanimously admitted that if libraries are networked with ICTs, they will eliminate space problems, supplement library stock, meet users' demands better, and discourage piracy. Resource sharing in public libraries in India is doomed unless India as a country realizes the importance of ICT for solving social problems and helping the social and economic development. The technological development has made library services effective, speedy and constructive. Therefore public libraries have to supplement their services with the latest information and

communication technology in order to educate their users living in remote areas and villages about the economic conditions, trend and development in all the areas of the country. Thus, community development programmes, rural development programmes adult education programmes of the government and the concept of e-governance can achieve its goal with the help of the modern public libraries.

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