DIGITIZATION AND NETWORKING OF LIBRARY AND INFORMATION CENTRES IN NORTH EAST INDIA

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Editorial Note

In the present day knowledge society the major goal of Library and Information Centers (LICs) is to meet the multifaceted needs of users. In order to meet such requirements, library professionals have to take up the challenges of changing situation. They are to mould themselves and develop the library services as per presents needs. The LICs should be at the center of information collection, organization and dissemination. It be a service center and professionals are to work in missionary zeal. With the advent of Information Technology (IT) and its application in various fields of knowledge has transformed sufficiently toward meeting different needs of individuals or groups. Development in the area of Information Communication Technology (ICT) and its increasing application in LIS have facilitated the LIS professionals to go for modernizing their library works and services. Digitization of library resources and linking LICs in a networking environment is much talked now a days. These are practiced in the Libraries of different places both in and outside India. It becomes imperative for the library professionals to gather knowledge on these areas in order to meet the challenges they are encountering today. LIS Professionals also from the NE India need to equip them in this regards.

In recent decades, because of application of ICT in LICs, the environment of workings and services has changed dramatically. Networking and Electronic communication have made it possible to store and retrieve information in electronic, digital and optical and audio-visual forms. Library network technology is developing day-by-day enabling the libraries to transmit data speedily, create databases at minimum cost, provide advance update services, share the library resources etc.

Finding it very useful in meeting users' needs pin-pointedly, exhaustively, a number of initiatives have been taken in different cities of Indian for implementing library networks at various levels. Particularly, in India, different metropolitan library networks like DELNET, CALIBNET, PUNENET, ADINET, MALIBNET,

MYLIBNET, BONET, BALNET, have come into existence and these networks are extending services to the users satisfactorily. UGC has also taken a bold initiative by establishing Information Library Network (INFLIBNET) for the academic libraries of India. These networks are, besides others, linking bibliographic databases of member libraries and extending document delivery services to the users. It is a matter of great satisfaction for the library users of NE India that a large number of academic libraries have been included in the INFLIBNET programmes. Some libraries of the region are also became the member of, the Developing Library Network (DELNET) of Delhi

It is very much expected that libraries of this region are to grow to a certain height so that they can provide information to their users to their satisfaction. The present day professionals are expected to equip themselves with the necessary skills and apply them for improving the library service standards.

NE India has produced a large amount of literature pertaining to different facets of knowledge, different system of thoughts, belief and practice, which have developed in the region since the dawn of reflection. Huge treasures of these literatures are heritage as gift from our ancestors in the form of manuscripts preserved down the generations. The manuscripts are available in different languages and scripts and have been written on palm leaf, birch-bark, sanchipat, tulpat, cloth, paper, wood etc. The Govt of India, Ministry of Culture has rightly decided to start the project: National Mission of Manuscript (NMM) in February 2003 in order to save the valuable but less visible items of heritage. The NMM in NE India chapter is playing a vital role for the preservation of valuable wealth of the region by digitizing it. Scanning is one of the most sophisticated emerging technologies wherein analogue form (book contents) is converted to digital form. Scanners have revolutionized the document management system and the new possibilities of storage, preservation, search, dissemination/ access have been coined with this technology.

LIS studies and services have witnessed drastic changes in the changed environment and they are no longer confined to four walls rather extended beyond and global access of library resources has become a common phenomena.

To cope with the trends of development, LICs need to prepare themselves to meet the challenges. LIS professionals have to develop

their skills and performances enabling them for shouldering the sincere responsibility in extending services to the users sufficiently for their best satisfaction. They are to act in proactive manner enabling for the best use of resources available within and even outside the library. No library can claim self-sufficient itself, and sharing of resources among libraries is the only answer. Transferring of documents in physical form from one library to another in traditional mode cannot serve the purpose satisfactorily due to its various limitations. This has resulted emergence of network library where LICs are linked each other. For implementing such a network, automating library activities: in-house and in information retrieval, is pre-requisite; and library automation using standard software packages is to be initiated by the member libraries at the earliest.

Presently libraries are having documents in various formats: conventional and non-conventional, printed and digital, and so on. Libraries are now in transition with both manual and automated systems. Different libraries are switching over to automated system phase wise. Different types of libraries are developing digital sections and the sections are at various stages. Born digital items are continuously growing in the collection through subscription as well as available from open sources. Moreover, individual libraries are to initiate in-house digitization for better preservation and easy retrieval of available resources.

Considering this, schools conducting LIS courses have to prepare existing library staff and future librarians skilled and professionally up dated so that they can claim themselves as the assets of the library establishment in extending services with necessary expertise.

Establishment of library network for proper and sufficient utilization of resources available in different libraries at one's doorstep is very much in demand even in this part of country. In our country, there are different library networks at national, regional and metropolitan levels aiming for extending library and information services to the users of specific geographical areas. The NE India is yet to have such a library network thereby our library users are deprived of getting the benefit of library establishments and the resources are under utilized. Some initiatives are taken at professional's levels but till now it is at the very preliminary stage and no remarkable achievement is noticed.

With all the important issues taken into consideration, the National Seminar was organized with the financial support of Central Reference Library, Dept of Culture, GOI, Kolkata on the theme "Digitization and Networking in Library and Information Centres in North East India". The sub-themes are: Application of ICT in LICs of NE India, Digitization of Library resources, Role of LIS School, and Planning for a network of LICs in NE India. It is a great pleasure to note that LIS professionals from different parts of India have participated in the seminar and contributed papers for different sub-themes. Both invited and contributed papers are included in each sub-theme. Professionals from the neighbouring countries: Bangladesh and Bhutan also contributed papers. The present volume is the outcome of this national seminar held during January 8-9, 2009 at the Gauhati University.

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Editors

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Open Access through Community Based Information Centres: A Challenge to Library Profession

Dr. Moses M. Naga
Angom Jeevan Singh

Abstract

The paper briefly describes the impact of ICTs on information flow and access. The concepts of Open Access and Open Library have been precisely discussed. The paper also talks about open access through telecentres and discusses the challenges to library and information profession.

Keywords: Information and Communication Technologies (ICTs), Open Access, Open Library, Community Information Centres (CICs), Common Services Centres (CSCs).

1. Introduction

Application of Information and Communication Technologies (ICTs) to libraries has been a boon in facilitating effective access to vast collection of information resources. It (application of ICTs) has enhanced the value of information as a basic commodity. On the other hand, it has increased the use of information resources more effectively by the users. Indeed, ICTs have made a breakthrough in the expansion of access to information resources cutting across geographical, cultural and political barriers. In this regard, Suriya and Sugumar, (1988) have reiterated that ICTs have greatly revolutionised in the way information services are provided to the users by libraries even beyond the physical plant of the library.

2. Open Access (OA)

Open Access is free, immediate and permanent full-text online access for any user- web-wide to digital information and scientific and scholarly material, primarily research articles published in peer-reviewed journals (*Encyclopedia Wikipedia*). Open access allows any individual user to link, read, download, store, print, use and data-mine the digital content of that article. An Open Access article usually has limited copyright and licensing restrictions.

In other words, Open Access refers to availability of information freely on the internet, permitting any user to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain should be given to the authors and the integrity of their work and the right to be properly acknowledged and cited **(Budapest Open Access Initiative, 2002; http://www.earlham.edu/~peters/fos/boaifaq.htm)**.

3. Open Library (OL)

Open Library is a project of the Internet Archive. Its goal is to create an online catalog that contains one web page for every book ever published. To do this, it accepts data from a variety of sources-libraries, publishers, booksellers, and individuals. In fact, it is an Open project - the software is open, the data is open, the documentation is open, and the site is open **(http://openlibrary.org/dev/docs/api)**.

"One web page for every book ever published. It's a lofty, but achievable, goal. To build it, we need hundreds of millions of book records, a brand new database infrastructure for handling huge amounts of dynamic information, a wiki interface, multi-language support, and people who are willing to contribute their time, effort, and book data". To date, we have gathered about 30 million records (13.4 million are available through the site now), and more are on the way. We have built the database infrastructure and the wiki interface, and you can search millions of book records, narrow results by facet, and search across the full text of 230,000 scanned books **(http://openlibrary.org/about)**.

Open Library is a new online tool for finding information about books – even (perhaps especially) for titles that are out-of-print, scarce, or likely to find one reader per decade, if even that. It is, so to speak, a catalog with benefits... Citations and excerpts from reviews will be available. Likewise, cross-references to other works on related topics. A user of Open Library can see the cover of the book and, in some cases, search the contents **(Scott McLemee, 2008)**.

4. Telecentres and open access

Telecentres may be roughly defined as a facility for providing open access to information resources through ICT-based services to the public **(Feather and Struges, 2003)**. The emergence of telecentres in the mid 1980s has radically changed the dimension of information provision. In a view to provide quality information to all sections of the society, the Government of India has launched various telecentres projects. These information centres will enable access to global information resources to the public through ICT enabled services. To mention a few, Community Information Centres (CICs) and Common Services Centres (CSCs) are prominent in this regard.

5. Community Information Centres (CICs)

To provide access to various information resources through ICT tools, it is rather commendable that the Government of India had launched the project for establishing an information network system using the Information and Communication Technology (ICT) facilities reaching down at the block level in the entire North-Eastern Region of India. It was in April 2000, the Ministry of Communications and Information Technology, Govt. of India initiated the project to establish Community Information Centres (CICs) in all the then existing 487 blocks in North-Eastern States. The pilot project covering 30 blocks in these states was inaugurated on the 12th of August, 2000 by the then Honourable Union Minister for Information and Communication Technology.

At present 487 CICs have been successfully implemented in all the Developmental Blocks in the entire North Eastern region. The state wise distribution of the CICs is shown below:

Table 1: State wise distribution of CICs in North East India

Sl. No.	State	Districts	Development Blocks	CIC Blocks
1.	Arunachal Pradesh	15	56	56
2.	Assam	23	219	219
3.	Manipur	9	33	33
4.	Meghalaya	7	32	32
5.	Mizoram	8	26	26
6.	Nagaland	11	52	52
7.	Sikkim	4	40	40
8.	Tripura	4	29	29
TOTAL		**81**	**487**	**487**

Source: National Informatics Centre (NIC), Govt. of India

5.1 Infrastructure of CICs

Each Community Information Centre (CIC) is provided with one Server system, five desktop Client systems, one Laser Printer, a Dot Matrix Printer, a Television and two UPS (1KVA & 2KVA). These systems are connected on a Local Area Network (LAN) which is further connected through broadband VSAT to NICNET and Internet. Each CIC is manned by two operators.

5.2 Services of the CICs

The CICs are providing access to information on education, health, socio-economic databases, agricultural and market, government schemes, programs, tenders, employment, computer training, weather, e-governance, edutainment etc. Other facilities like Public Information Facilitation Center, Grievances Redress and Monitoring System, Web enabled bill payment system and Vehicle Registration System. Online issue of certificates like Rural Area certificates, Caste/Tribe certificates, Birth & Death certificate, Certificate of Residence, etc.

5.3 CICs in other parts of India

Based on the experiences and performance of the CIC project in the North Eastern States of India, the replication of the same scheme was taken up by the Government of India and has established

135 CICs at the Block Headquarters in the State of Jammu & Kashmir. Further, the scheme has been extended by setting up of 41 CICs in the Government Schools of Andaman & Nicobar Islands and 30 CICs in the Government Schools of Lakshadweep Islands. These CICs are serving the dual purpose of education and training as well as providing ICT enabled services to the populace of these regions.

5.4 Activities and success stories of Community Information Centres (CICs) in North East India. (Source: National Informatics Centre, New Delhi)

Arunachal Pradesh CICs

- Computer training to Block-level office staff and students
- Downloading forms for Indo-Bhutan Inner Line Permit Card
- E-mail and chatting facilities to army personnel and others.
- Employment notifications
- Online marketing

Manipur CICs

- Provide guidance and map to tourists going to Myanmar by bus from Imphal to Mandalay on the Indo-Burma road by downloading information from web site.
- Moreover, Services for tracking delivery of speed post articles and express parcels through links to associated websites is being provided to users.
- Instant weather forecasting for farmers
- Articles submission to local newspapers through CIC

Assam CICs

- Computer Awareness Programmes were organized for the community
- One user received information from the Neurological Institute, Guwahati for treatment of his father's illness
- Another user ordered medicines from Apollo Hospitals, Chennai
- Yet another user downloaded a Comparative Price list of Computers to help in purchase of a PC

- A Bank Officer received the result of correspondence course
- A Film-Maker registered his entry for a Film Festival and received the entry rules
- CIC, Jugijan, Nagaon distributed information regarding Rainfall records.

Tripura CICs

- Bengali typing software was introduced for official purposes in Khowai, Tripura.
- Provide agriculture and market information, educational guidance, etc.
- Tender Notice and various scheme information
- Health Booking Information System for rural patient
- Facilitates local people participation in share markets through ICICI and regularly purchase shares of different companies

Sikkim CICs

- CIC, Yuksam, Sikkim has done commendable work on computer basic training to the community.
- Below Poverty Line (BPL) survey
- Block staffs training, etc.
- Registration of Fair price shops
- Selling and buying products by advertising on the net

Meghalaya CICs

- provide computer education on various certificate courses offered by DOEACC and IGNOU
- Government tenders, schemes, agricultural prices and products are provided to the community.
- Various competitive examination results are downloaded and made available to the users
- Provision of information on various development schemes
- Live lectures organized by NIC Delhi

Mizoram CICs

- Hosted a small Mizo Magazine website
- Publication of beneficiaries of DRDA Schemes
- Information on various rural development schemes

- IGNOU programmes through DD are made available
- Computer workshop for elderly persons aged 50 and above

In Nagaland CICs

- Provide admission notification of other universities in India and abroad
- Educational/Medical (Teleconsultation) programmes through video conferencing from Delhi
- Railway and Airline enquiry
- Free computer training to the block staffs
- Hospital enquiries and booking

6. Common Services Centers (CSCs)

To facilitate meaningful access to information by the rural communities even in the most far-flung areas, the Government of India has approved a Common Services Centers (CSCs) Scheme in the year 2006 for establishing 100, 000 CSCs in 600, 000 villages of India across the country.

The CSC scheme is to be implemented through a Public Private Partnership (PPP). The CSC is a strategic cornerstone of the National e-Governance Plan (NeGP) of the Government of India. This is part of its commitment in the National Common Minimum Programme to introduce e-governance on a massive scale. While the project is a Central Government's Scheme aimed at covering the whole nation, its implementation is decentralized facilitating entrepreneurship to flourish locally.

Under the project, the CSCs in one-lakh villages will be broadband Internet enabled and would offer a range of Government-to-Citizen (G2C) and Business-to-Customer (B2C) services. The one lakh CSCs will cater to six lakh villages in the country i.e. at least one CSC in a cluster of six villages as shown in the Figure 1 below:

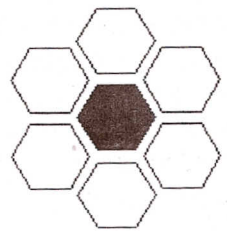

Fig. 1: Honey Comb structure for location of CSC

6.1 Infrastructure of CSCs

Each Common Services Centre (CSC) is to be provided with a 2-5 PCs along with basic support equipments like 2 Printer (Inkjet + Dot matrix), Scanner, Genset/Inverter/UPS, Digital/Web Camera, Furniture and Fixtures, Biometric Devices, Wireless Connectivity as the backbone and additional equipment for edutainment, telemedicine, projection systems, etc. These systems are connected to State Wide Area Network (SWAN) which is further connected through broadband to NICNET and Internet. Each CSC will be owned and operated by village entrepreneurs.

6.2 Common Services Centres (CSCs) in Meghalaya

In Meghalaya CSCs was rolled out for the first time on 2nd October, 2008 under the brand name '**Rainbow**' at Mawtawar Lummawsing, Mawlai which was formally inaugurated by the Minister of Information and Technology (IT), Government of Mehalaya, Shri. Conrad K Sangma. The state Government of Meghalaya has assigned to the Hyderabad based Micro-Finance Multinational Company BASIX (Bhartiya Samruddhi Investments and Consulting Services) for setting up the 225 centres in the state of Meghalaya. BASIX will invest a sum of Rs.38 crores for this project, which they hope to recover within 5-7years time. All the 225 CSCs are expected to be commissioned by July 2009.

6.3 Services of CSCs

The CSCs aims to provide high quality and cost-effective video, voice and data content services in the areas of e-governance, education, health, telemedicine, and entertainment as well as other private services. A highlight of the CSCs is that it will offer web-enabled e-governance services in rural areas, including application forms, certificates, and utility payments such as electricity, telephone and water bills. Other significant public and private services that can be accessed through these centers would be remote consulting for healthcare, e-enabled vocational training, market and supply chain linkages, rural BPO, agricultural price and weather information, etc. The CSCs are thus envisaged to act as change agents in accelerating integration of the rural masses into the economic mainstream of the country.

7. Challenges to Library and Information Profession

There have been success stories of the ICT-based information centres when it comes to information communication pertinent to day-to-day life particularly in the rural settings. This, in fact, has rendered library services redundant in many ways and to a great extent. In this connection, **Khan et al. (2004)** have pointed out that users today have shifted to online electronic services for accessing large and remote sources of information rather than using the library as they can access to information resources from any remote location of the world. This poses a huge challenge to library profession. Perhaps one can agree with **Feather and Struges (2003)** that library and information professionals stands at the edge of the unknown every day; a new query arrives; a new program is written; a transforming capability becomes a common place. Further, they have elaborated the challenges to library profession as below:

(a) The availability of information in the electronic forms and ability of privileged public to access to limitless information resources through internet.

(b) Increasing dependence on information technology and electronic files makes the professionals extraordinary powerful, but also dependent and vulnerable.

(c) The role of information profession of as a simple receiver, collector, mediator, processor of information is disappearing due to advancement in ICT.

(d) Rapid evolution of technology leading to diversity of tools, hardware, software, formats, platforms, applications and protocols.

To cope up with the changes and face the challenges therein, library and information professionals need to reorient their attitude and put in required efforts towards achieving professional competency by acquiring basic knowledge and skills in information and knowledge management. Library professionals today must seriously address to the invasive forces of the ICTs that had touch the very core issues of librarianship in the recent past. *It is an established fact now that new generations of information seekers place higher value on convenience and speed than on carefully assembled and authoritative print collections.* Users increasingly prefer more

computer content, more and more computer indices, digitised search aids, digital repositories of articles, online access to journals, newspapers, etc. If libraries are expected to change from purely physical places to hybrids, they must assess their ability in terms of available resources to make the change and become abstract, virtual entities. *Technology has revolutionised not only the way information is packaged, processed, stored, and disseminated, but also how users seek, access and utilise information.*

Libraries, indeed have always served as access points for information. Services have evolved from the days of closed access, through shelf browsing and OPACS, to the new concept of open access and institutional repositories. This historic migration has tried to satisfying the ever-changing and ever-increasing needs of library users, including ease of access, interaction richness, and low cost. Today, access is more important than ownership. *But amid the rapid changes, there is one constant- the need for access to high-quality research materials.* Success in the new environment requires learning much more than what we now know.

References

1. Budapest Open Access Initiative (2002). http://www.earlham.edu/~peters/fos/boaifaq.htm (visited on 17 October, 2008)
2. Feather, John and Struges, Paul (ed.) (2003). International Encyclopedia of Information and Library Science. London and New York: Routledge.
3. http://en.wikipedia.org/wiki/Open access (visited on 6th October, 2008)
4. http://openlibrary.org/about (visited on 17th October, 2008)
5. http://openlibrary.org/dev/docs/api (visited on 17th October, 2008)
6. Khan, Ratan Kumar et al. (2004). Reforming Reference: Guidelines for Librarian. New Delhi: Mittal Publication.
7. McLemee, Scott(2008). http://www.insidehighered.com/views/2007/08/08/mclemee (visited on 15th October, 2008)
8. Suriya, M and Sugumar, C. (1988). Impact of New Technologies on Library and Information Activities in Vashishth, C.P (ed.) Modernization in Libraries. New Delhi: Indian Library Association.