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Library Networks in India — An Overview

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Abstract

This paper gives an overview of the development of library networks in India. It also mentions the efforts made by the Planning Commission, Government of India, to promote resource sharing among libraries in the country. The present scenario of library networking is also briefly presented. The main problems in early operationalising the library networks include retro-conversion of holdings data, non-availability of suitable software for operating large databases and online searching in a wide-area-network mode at prices affordable by all the libraries, lack of adequate standardisation and non-availability of adequate training facilities to cover all the library staff participating in the network programmes. Some possible solutions to these problems are suggested.

1. INTRODUCTION

In the field of library science and traditional librarianship, India was not lagging much behind the advanced countries in the past. The country produced eminent library scientists and librarians whose contributions to the subject discipline were outstanding. Also, the spirit of library cooperation flourished and library resource sharing was practised by several libraries in the form of inter-library loans, circulation of documentation lists, current awareness services, and so on. Even library networking was done in an informal mode in certain cities in the country. The efforts of the Bombay Special Libraries Association (BOSLA) since 1978 in resource sharing among its member libraries is one such example. However, such efforts were mostly informal and limited in scale.

The networking efforts in various countries got a boost with the tremendous and fast developments in computer and communication technologies, which led to the implementation and successful operation of national and international computer-communication networks. These networks were commonly used for business and commercial applications, but the libraries were quick to start efforts to make use of these networks for linking libraries for resource sharing among them. The success stories of library networks in

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the advanced countries like the Online Computer Library Center (OCLC), (originally called the Ohio College Library Center when it started in Ohio in 1967), the Washington Library Network (WLN), the Research Library Information Network (RLIN), in the USA, and the British Library Automated Information Service (BLAISE) in UK, etc., are examples of such cases.

In India, library networking efforts using computer-communication technologies started during the late 1980s with the initiation of metropolitan/city networks like the Calcutta Library Network (CALIBNET) and the Delhi Library Network (DELNET) followed by the national-level Information & Library Network (INFLIBNET) of the University Grants Commission (UGC). The UGC proposed INFLIBNET for networking libraries of all the institutions of higher learning and research and development. These networks, however started functioning in the 1990s only. Earlier, certain database producers in the government sector like the Biotechnology Information System (BTIS) of the Department of Biotechnology (established in 1986) and the Indian Medlars Centre (IMC) which was established jointly by the National Informatics Centre (NIC) and the Indian Council of Medical Research (ICMR) in 1987, started using the NIC's satellite-based national-level information network called NICNET. During the 1990s, CALIBNET and DELNET started providing some services and INFLIBNET also started functioning pending its registration as an autonomous society under the UGC. The 1990s have also seen the initiation of some more city library networks like the Bombay Library Network (BONET), the Pune Library Network (PUNENET), the Madras Library Network (MALIBNET), the Ahmedabad Library Network (ADINET), and so on.

2. PLANNING COMMISSION EFFORTS

The Planning Commission, Government of India, has been taking considerable interest in library resource sharing and library networks. Its efforts in these areas have increased since the Seventh Five Year Plan covering 1985-90. The Commission appointed a Working Group on Modernisation of Library Services and Informatics, in November 1983. The Working Group submitted its report in July 1984 which recommended among others, interlinking of library systems through library networks. This report was to be considered for the Seventh Plan. The Commission appointed another Working Group on Libraries and Informatics for the Eighth Five Year Plan. This Working Group submitted its report in May 1989, which again recommended among others interlinking of library systems in the country. This was followed by a similar exercise for the Ninth Five Year Plan for the period, 1997-2002. The Commission again constituted a Working Group on Libraries and Informatics under the Department of Culture, Ministry of Human Resource Development, Government of India, which is expected to submit its report in May 1996. Apart from this, the Planning Commission also appointed in February 1995, a Core Task Group to prepare an approach paper for enhancing inputs of science and technology and communication technology for library resource sharing. These initiatives have led to increased efforts in the establishment of library networks and library automation in the country.

3. PRESENT SCENARIO

The present status of library networking in India is that most of the libraries covered by some network are creating databases of

Table 1. Status of Indian library networks*

Name of library network	Year of starting	Promoting agency	Whether regd. as a society	No. of participating libraries	Database dev. & other activities
ADINET	1993	Soc., INFLIBNET & NISSAT	Yes	9	Library holdings database in progress Library automation in progress Training programmes Database of current periodicals in member libraries
BALNET	1995	NISSAT	Yes		Activities will start after getting financial support from NISSAT
BONET	1994	NCST & NISSAT	No		Online union catalogue of periodicals Online request system for ILL E-mail & Internet access Online searching of foreign databases Database on computers and software CD-ROM database searching Database of contents of Indian periodicals Software for OPAC
CALIBNET	1992	NISSAT	Yes	10	Library automation in progress Access to Internet and Knight-Ridder (Dialog) CD-ROM database searching
DELNET	1990	Soc., NIC & NISSAT	Yes	54 (Members)	Books database (1.68 lakh records) Multi-lingual books database E-mail service Union list of current periodicals (11,000 records) Database of Indian specialists Online searching of foreign databases.
INFLIBNET	1991	UGC	Regn. in progress	54	Database of books (6.5 lakh records; 50,000 validated) Training programmes for university library staff Software development Database of theses/dissertations (65,000 records) Contents with abstracts (COPSAT) service Databases of experts, periodical holdings (60 libraries, 30,000 records) Database of periodicals.
MALIBNET	1993	Soc., & INSDOC	Yes	15	Current serials database of 50 libraries Journal holdings database (15 member libraries, 500 journals) Journal contents database (100,000 records from member libraries) All INSDOC databases ported on MALIBNET (10 databases) Online searching of these databases Automative Engineering database (4,500 records) Access to Internet and Knight-Ridder (Dialog) database CD-ROM database searching
MYLIBNET	1994	Soc., Mysore Library Consortium & NISSAT	Yes	9	Library automation in progress

* Data collected from respective sources

their holdings and in automating the library activities, the former being the first priority. Commonly, the periodical holdings are attempted first in building up the databases as it takes less time than for the other types of library documents. This is followed by the databases of holdings of books, reports, dissertations, standards, etc. The library network centres (i.e., the coordinating agencies of the networks) also are concentrating on acquiring holdings of databases of their member libraries and merging them to provide the user with access to the total records. They provide such access either by e-mail or online through the telephone network. In addition, these centres also try to provide a common software for database development and automation of library activities and services. Table 1 gives the details of status of some important library networks in the country.

It can be seen that except DELNET and INFLIBNET, most of the other library networks have yet to develop databases of library holdings in a significant way. Even these two networks have to go a long way to cover in their databases the entire holdings of all the participating libraries. Unless this is achieved, the networks would not be able to achieve significant resource sharing as well as rationalisation in library acquisitions. Most of the networks are however, making efforts towards this end by conducting training programmes for the staff of the participating libraries in data capturing (covering library holdings), database development, and automation of library activities and services.

3.1 Database Development

Development and maintenance of databases is a skill-oriented as well as time-consuming activity. The enormity of the task can be gauged if one considers the holdings of the major libraries in the country. The holdings details of some of the major libraries in the country are given in Table 2.

In addition, each of the libraries of major universities would have, on an average about two lakh publications/documents. If the databases of such holdings are to be developed using standard input format, rules and procedures, and to simultaneously

Table 2. Size of collections in selected libraries in India*

Name of the library	Collection size (lakhs)	No. of current periodicals	Annual increase in collection	Present size of database
BARC	8.5	1,700	26,000	
DESIDOC	2.0	450	8,800	0.80
INSDOC	1.5	2,750	5,000	0.40
NAL	2.8	370	9,400	1.00
NML (Medical)	4.0	2,000	3,500	0.20
NASSDOC	1.8	2,000	1,500	0.08
IARI (ICAR)	3.0	5,000	8,000	
IISc	7.2	2,000	8,500	0.12
IIT (M)	2.5	1,400	3,500	
IIT (D)	3.0	1,000	3,600	
IIT (K)	3.5	1,400	4,500	

* Data collected from respective libraries

maintain acceptable quality standards of the databases, the time normally required would be about 4000 man-days per lakh of documents if the data capturing is done manually. If other databases are used for downloading relevant records, the time may come down by about 40 per cent.

4. IMPEDIMENTS TO THE ESTABLISHMENT OF NETWORKS

In the development or establishment of library networks, the following seem to be the main problems faced by the Indian libraries;

(i) It is difficult to enforce standards in data conversion for creating databases of library holdings particularly when different libraries do this job independently. Even if the same input format and data entry procedure (cataloguing rules, etc.) are followed, there could be a significant variation in the practices like depth of indexing, slant in indexing or generating keywords, and so on.

(ii) In a network, collections of large libraries tend to be overused and therefore, such libraries would be unwilling to become part of the system unless there are compensating incentives.

(iii) Libraries generally do not have the necessary staff with adequate expertise in database development and in the use of network hardware and software. This necessitates organising training programmes frequently and also on-the-job training. The training programmes presently available are not adequate and they are to be provided on a much larger scale to cover all the interested library staff in the country.

(iv) If a library has already created a database of its holdings, fully or partially, using its own input format and other rules and procedures, it would be very reluctant to change them, if necessary, to join a network. This reluctance is mainly due to the cost of inputs required to effect the change.

(v) Many libraries do not have adequate resources for acquiring the hardware, software and other facilities for joining the network.

(vi) Many libraries do not have the software which is tailored to their procedures and which can function efficiently and effectively in a wide-area-network environment. They look for an efficient, integrated software for library automation and database development. Many of the libraries presently use CDS/ISIS; but prefer to switch over to other software which can work more efficiently with large collections and users, for both the types of functions. There are a few such software packages available in the market in the country; but many libraries, particularly academic and public libraries, expect to receive it free of charge or at a nominal price. Some libraries which can afford to buy the package at market price expect proper customisation and efficient after-sales-support from the supplier which is not easily available to the satisfaction of the buyers.

(vii) Many libraries do not usually get adequate support from the managements of their institutions.

5. POSSIBLE SOLUTIONS

Libraries and library networks are making efforts to get over these impediments. However, while they may be able to solve some of the problems through cooperative

efforts among themselves, they would need the help of supporting or funding agencies to solve many other problems, particularly those related to standardisation and quality control. For instance, trained manpower is not available for the data conversion job (to develop databases). Also, none of the university departments provide adequate training in this activity. This situation therefore necessitates engaging raw library and information science post-graduates, providing training to them and then using them for the job. The libraries should however not recruit personnel on regular appointment for the creation of databases covering their back collections (retrospective conversion) as the recruits would not have adequate work once the backlog is cleared. It would be therefore preferable to engage external services on contract for this job to clear the backlog and the regular library staff should take care of the updation of the databases on a regular basis. Using contract services has of course the risk of poor quality input, but it could be overcome by enforcing strict quality control measures. But again, majority of the libraries do not have funds for creating the databases.

The author has been closely associated with some of the library networks like DELNET, CALIBNET and INFLIBNET and has had occasions to look into some of these problems. Based on this association, the following possible solutions are suggested:

(a) The library networks should first compile detailed rules and procedures which should be in tune with the existing standards for database development as well as network operation and then ensure their proper implementation by the participating libraries.

(b) Usually, many common publications exist in the acquisitions of different libraries. The individual libraries must therefore check, before filling an input sheet, with the network office/database to see if that title has already been included in the database and if so, download the entry instead of doing it all over again. If such checking is done among the networks themselves (since most of them are supported by Government, such coordination should not be difficult), there would be considerable savings in human efforts and expenditure.

(c) The Government and the funding agencies must provide financial support for database creation in libraries and library networks, as the expenditure incurred on this will pay back in terms of rationalisation of library acquisitions, resource sharing, and increased use of information. It may be possible to have allocation of funds for this purpose in the annual and five year plans of the Government, if the matter is taken up by the libraries and networks through proper channels.

(d) As an incentive to large libraries for sharing their resources with small libraries, a system of credits and debits may be introduced. That is, a library would get a credit point by lending a document and a debit point by borrowing a document. These points may be settled in monetary or other acceptable terms (as per network guidelines) at regular intervals.

(e) The network managements must organise practicals-based training programmes as frequently as necessary to train the staff of the participating libraries. It would be good if teachers in library science schools are also trained along with practising library professionals so that these teachers

would in turn train their students year after year.

(f) The network managements must also provide a common software on a cost-to-cost basis for use in libraries on request. It would be worthwhile to get such a software developed, if it is not already available. For such software, thorough back-up technical support must be ensured either directly by the networks or through some contract arrangement.

(g) The database development contractors must be encouraged to come up in large numbers to create databases on contract including retrospective conversion. This would speed up the time-consuming task of data conversion. Since a large number of libraries and information centres intend to create databases, it will be lucrative business for these contractors for a number of years.

6. CONCLUSION

Development and management of library networks involves high commitment and tenacious work, particularly in the Indian environment where majority of the libraries do not have qualified and skilled manpower and also the financial resources to introduce automation and the current information technologies. Cooperation, not only among libraries, but also among library networks is essential for the success of these networks in the country. While the problems and suggested solutions mentioned above are only indicative, the network managements have to make considerable efforts for detailed planning, implementation, and successful operation of networks. These efforts call for full-time work; part-time efforts may not only affect the quality, but also delay the implementation of the networks.