

## **Library Consortia Model for Country Wide Access of Electronic Journals and Databases**

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### **Abstract**

*The present approach towards partnership, networking, consortia and resource sharing adopted by Indian libraries need radical changes to evolve responsive partnerships in order to achieve best performance in service. The current practices of journal acquisition in most of the libraries in the colleges and universities in India are print based, in which each library is an island with regard to access of information. Moreover, there is wide disparity in the availability and use of information among different universities and colleges. But, consortia based acquisition and electronic desktop delivery of information can eliminate this gulf and increase the access and use considerably. Thus the difficulty now faced by the students, teachers and scientists in getting academic and research information will be eliminated on achieving full bibliographical control on the information documents available world over.*

*This paper depicts the benefits of library consortia, analyses the present trend in the formation of consortia in India and suggests a new model of library consortia in which all academic institutions and government research organizations could participate. The formation of such a unique consortium under the direction and full support by the Government of India is stressed. The role that can be played by the INFLIBNET Centre of the University Grants Commission in the formation and management of such a consortium is also depicted. The areas of re-defining and re-engineering the operations of the university libraries necessitated by the consortia based electronic information and document delivery services are also discussed.*

*Key words:- Library networking, resource sharing, library consortia model, national library consortia, country wide access of information, Indian Library Consortium, re-engineering, university libraries*

### **Introduction**

The Library and Information Systems (LIS) and Services are being transformed by the modern Information and Communication Technologies (ICTs). The ICTs have the potential to transform both the processes and products of the entire economic sphere - as well as all types of market transactions, institutional linkages, and human interactions and learning. Since nearly all economic activities rely on information acquisition, processing, and transmission, the scope for the use of this technology is unbound. Information is the "lifeblood" of competitive markets, and improvements in information technologies are transforming the whole economies into fast-moving information-intensive economies and globalizing production and competition in many industries and services. The libraries

and information centres are one of the major supporting agencies involved in the process of information transfer and finally the diffusion of information and information technology. Consequently, both the Information Systems and the Information Professionals are adapting to meet the changing needs and growing expectations of the users (Jalloh, 2000). The initiatives and development in the areas of automation, networking, resource sharing, consortia, digital libraries, electronic document delivery, etc. have caused to emerge new practices in the operations and management practices of the Library and Information Systems world over. As compared to the research libraries, the university and college libraries in India have shown a slow rate of progress in this direction. Now, these libraries also have shown increased interest in the inevitable refinement of their management processes.

### **Library Consortia: Bridging the Gulf in the Availability of Information**

The phenomenon of information revolution has posed several problems and this has far reaching implications in the society. The nation or society which possesses more information will lead the world. This is also true in the case of individuals. The persons have more information will guide a group or society and they will be superior to others. This power of information has induced the nations and individuals to acquire and control more and more quantities of information. But, in this race, the poor nations, societies, institutions or individuals will be back as compared to others. This has created a big gulf in the availability and use of information. A study by the author in 1997 revealed that while 77 per cent (total no. 2,31,510) of the higher education faculty in India were engaged in the affiliated colleges, only 23 per cent (total no. 69,283) of the faculty were engaged in the Universities (Francis, 1997). Though the salary and other emoluments given for the faculty in colleges and universities are same, there is much difference in the scientific productivity and research output contributed by these two classes of the faculty. A major reason for this difference is the lack of availability and use of research information.

As compared to the university libraries, only a meager amount was allotted for college libraries in India. Over the time, academic institutions typically have spent a decreasing percentage of their educational and general budgets on their libraries. Nonetheless, academic institutions and library clients expect their libraries to obtain new electronic resources while simultaneously maintaining or growing traditional print collections until the electronic resources are fully stable. Libraries also are expected to do this with no additional funding. Academic libraries and information providers must use information technologies to facilitate increased information delivery and to make e-information more generally, readily, and flexibly accessible than its print counterpart. The current practices of journal acquisition in most of the libraries in the colleges and universities are print based, in which each library is an island with regard to access of information. The digital libraries expected to increase information access. They will allow for greater standardization of data, multiple and remote access to information resources, easy sharing, etc. (Aregu, 2001).

The Library Consortia can be an ideal solution in this context, if that has been established and managed at the wider interests of the society and the mankind in total.

The activities and operations of the library and information centres are being influenced and drastically changed with this new approach to information management. The pattern of common acquisition, subscription or licensing for access by the consortia will benefit more to the poorer group.

The conventional practices of journal acquisition are grounded in the legacy of a print-bound world in which each library is an island of access for its own patrons. But with electronic desktop delivery of information, the increased ease of access allows far greater information use than previously possible (Sanville, 1999). Experiences of the several libraries show that the improved ease of access has demonstrated the high elasticity in information usage. Libraries in consortia model of purchase of electronic journals can seek this desirable outcome that provide for expanded journal access. A study in the Ohio University Library System reveals that the use of journal titles has increased by three times than they previously held in print. Even the small and new colleges were also the beneficiaries through access to scholarly journals. As the evolution to broad scale electronic access continues, libraries and consortia must take advantage of the opportunities to adopt sustainable economic model of information purchase that maximizes information use.

There are several efforts to operate library consortia at regional, national or international levels. The Washington Research Library Consortium (WRLC, 2004)) is a good regional resource-sharing organization established by several universities in the Washington, D.C. metropolitan area to expand and enhance the information resources available to their students and faculty. The International Coalition of Library Consortia (ICOLC, 2004) is an informal organization that began in 1997. Comprising about sixty library consortia in the United States, Canada, the United Kingdom, the Netherlands, Germany, Israel, and Australia, the Coalition represents over 5,000 member libraries worldwide. The Coalition serves primarily higher education institutions by facilitating discussion among its members on issues of common interest.

### **Present System of Consortia in India**

Several working models of library consortia are prevailing in different nations and among different groups of institutions. In India, we have seen some library consortia such as UGC Infonet of the University Grants Commission, the INDEST (The Indian National Digital Library in Engineering and Science and Technology) of the Indian Institute of Technologies (IIT) and similar institutions, Consortium of the Council of Scientific and Industrial Research (CSIR), etc. Several other organizations such as the Indian Council of Agricultural Research (ICAR), State Agricultural Universities, Indian Space Research Organisation (ISRO), Defence Research and Development Organisation (DRDO), All India Council of Technical Education (AICTE) and some other individual groups of institutions have started working to form different consortia.

## **Why Separate Consortia?**

All consortia are formed on the basis of memorandum of understanding and agreements between the publishers, database vendors, user institutions, libraries, etc. Since the basic responsibility of providing infrastructure for education and research in India is vested with the Union and State Governments and the fund required for this is meeting from the government exchequer, the present system of formation and maintenance of different library consortia for each group of academic and research institutions is unscientific. The contradiction is that all educational and most of the research institutions in the country are getting full or partial financial support from the government. All universities, colleges and poly techniques in India are funded either by UGC, ICAR, AICTE, Indian Medical Council (IMC) or similar government agencies. All major research institutions directly run by the Government of India. There are some such institutions under the state governments also. This situation has posed a major question, "Why separate consortia for each group?". Potter (1997) argues as follows. "The fact that a group of libraries shares a common funding source, be it directly through elected officials or through a board of regents or oversight agency, is an important reason to build statewide cooperative systems. There is great appeal in efforts to pool resources and in cooperating to control costs". GALILEO in Georgia, the Louisiana Library Network, OhioLINK, TexShare in Texas, and VIVA in Virginia were some of the consortia functioning in USA in 1997 with state wide operation.

## **Consortia for Countrywide Access: a future model**

The present system of consortia has lot of merits over the earlier pattern of individual subscription to journals and databases. Such benefits can be maximized by establishing consortia for nation wide access. Instead of establishing separate library consortia by different groups of educational and research institutions, it is better to form one consortium for all educational and government research institutions with country wide access to all online journals and databases. Such a consortium in India may be named as, "*Indian Library Consortium*" (ILC). Here, the unnecessary duplication of efforts for the establishment and maintenance of separate consortia within a country can be avoided. Moreover, wide disparity existing in the availability, accessibility and use of information among education and research institutions can be eliminated to a large extent by this system. This disparity will be minimized on establishing high speed Internet connectivity with uniform per user bandwidth to all academic and research institutions.

The publishers and database vendors also will be benefited in this venture because their efforts for marketing and providing services and technical support will be less. Access to electronic journals and online databases are now controlled by the database vendors either by authenticated I. P. (Internet Protocol) Numbers of the Proxy Servers or by User Name and Password. In a single consortia, they can adopt the Gateway based Access Control. The vendors can establish Mirror Server Centres in each country. This has several benefits in database maintenance, backup and service. So, it is high time to consider the model for a single consortium and a real network at country level. Several experts and users have felt the need for such a network or consortium of all LIS. But, it

is difficult to include the commercial organizations and industrial houses in the consortia visualized for academic and government research institutions.

### **Role of INFLIBNET**

The established task of the INFLIBNET (Information and Library Network) of the UGC is to interconnect all educational and research institutions in the India for pooling and sharing of library and information resources and there by ensure easy availability and speed access of information resources for all academic and research programmes in the country (UGC, 1988). The service purview of the INFLIBNET covers all types of educational and research institutions and government organizations and hence, it has the primary responsibility to plan and establish a single consortium for the whole country. This should not be limited to serve only the conventional universities and colleges, but include agricultural, veterinary, medical and engineering universities, all types of colleges, government research institutions engaged in the fields of defence, space, industry, agriculture, medicine, atomic energy, etc. The fund required for establishing and maintaining the proposed Indian Library Consortium should be set apart either centrally in the Union Budget or by individual controlling institutions such as UGC, ICAR, AICTE, DRDO, ISRO, IMC, etc. In order to establish an integrated information system in India, increased administrative, financial and technical support by the government is essential (Francis, 1998). Though the role of the INLIBNET is clearly defined, more dynamic and strong actions are needed to achieve target.

### **Need for Re-engineering University Libraries**

In reaping benefits of the modern ICTs, the library and information centres in India are far behind as compared to those in the developed nations. Inadequate fund, infrastructure, manpower training, unscientific rules and management policies, etc., are the reasons for this situation. Uneven distribution of the available resources causes wide disparity in information availability, access and use. Gaur (2003) indicated the need for proper management models suitable for the modern ICT environment as follows. "It is important to find out why Indian Libraries and Information Centres have not been able to benefit to the extent expected by the computer revolution in spite of huge investments, and with so much of hue and cry. ... But, in reality all these effort have gone as waste. Why is it so?. Are these efforts not in proper direction?. Or is there something wrong in our planning?. In this process there will be a need for models and frameworks that help us to understand and identify specific problems".

The advent of electronic journals and online databases coupled with high speed data communication facilities has paved the way for the present form of library consortia. The model of single library consortia, proposed for the whole country, can bring an ideal situation of information availability and use, which provide maximum economy and service efficiency.

Consortia based information acquisition, processing and servicing warrant a total re-structuring of the entire processes of the university libraries. The principles of

centralized and co-operative operations as advocated by Dr. S.R. Ranganathan can be effectively implemented in the consortia mode. Maximum benefits of such a system can be reaped in a single consortium for country wide access of information resources.

### **Major Areas of Re-engineering**

A study conducted mainly in the Kerala Agricultural University reveals that a thorough re-structuring of the University Library and Information System is needed to suit the requirements warranted by the modern ICTs. It has felt that the modern ICTs warrants total changes in the processes of acquisition, technical processing, user education, services, human resource development (HRD), financial management, etc. of the university libraries. It is visualized that, the consortia based operations and electronic document delivery services of the libraries will enhance this need for thorough re-structuring. In comparison, it is revealed that similar situation prevails in almost all universities in India and the findings are relevant to them also.

- i. Re-engineering the Acquisition:-** The activities of document suggestion, selection, approval, order placing, passing of bills for payment, releasing payment, etc. can be done through the local area network and or Internet. The work of accessioning can be done using computers. Due to some audit regulations, it may not be possible initially to replace the paper form of Accession Register by computer form. So, till the audit regulations are getting revised, the libraries can prepare Accession Register by printing the document details from the OPAC (Online Public Access Catalogue) in Loose Sheaf. This will avoid a lot of duplicate and unnecessary work of accessioning. Moreover, multiple copies of accession registers can also be printed easily.
- ii. Re-engineering the Classification and Cataloguing:-** It is ideal to centralize globally the work of classification and cataloguing. The Library of Congress (LC) is already doing such work efficiently. Few libraries in India are availing the service of LC for downloading the classification and catalogue data. The ILC can either subscribe the service of the LC or the ILC itself can start such service for all libraries in India. It is ideal to collaborate with the National Library, Calcutta in this venture. Here, the work of preparation of Indian National Bibliography also will be automatically supplemented.
- iii. Re-engineering the User Services:-** The work of user services has to be thoroughly re-engineered on the lines of consortium and electronic document delivery. The procedures for all user services such as compilation of bibliographies, current awareness service, selective dissemination of information, photocopying, other documentation services, CD based and online database services, etc. has to be re-defined and need total revision.
- iv. Re-engineering the User Education:-** The user education programmes need to be more technology oriented. Such programmes should be able to impart minimum theoretical practical knowledge on computers, printers, scanners,

network based systems, search software of different database vendors, Internet search engines and services, web browsing, downloading, e-mail, data copying to CDs and DVDs, multimedia applications, computer viruses, etc. The orientation and training should be designed in such a way to provide confidence in locating and using the required and authentic information easily.

- v. **Re-engineering the Human Resource Development:-** The aspect of re-engineering with regard to the human resource development is mainly concerned with the areas of staff selection, orientation, training, technology adoption, work study, change management, motivation, etc. The technologies, methods and procedures, used in the library and information systems are more dynamic and changing as compared to many of the other professions. But, on the contrary, it is experienced that a large number of library and information professionals were reluctant to change. This also contributed to the low performance in the profession. This situation stresses the need for a total revision of the HRD policies of the LIS.

In order to prepare professionals and other staff in the libraries, Continuous Education Programmes (CEP) should be conducted regularly. The course contents and conduct should be evaluated and reviewed frequently. The compulsory orientation and refresher courses conducted by the UGC for the library professionals / teachers in the UGC Cadre have helped to improve the situation. But, it is evaluated that the conduct of the UGC refresher courses in many of the universities is downgraded to that of a routine process. Lack of infrastructure and latest technology systems, non-availability of competent and experienced faculty, inadequate interest in participants, etc. are some reasons for this situation.

The CEP has also to be provided for the professionals below the UGC cadre, that is, semi-professionals and the non-professionals, because, every staff in a library has important role in winning performance.

- vi. **Re-engineering the Financial Process:-** In modern libraries, the stress will be on electronic resources. So, more money has to be set apart for purchase and maintenance of hardware and software systems, Internet connectivity, etc. than the conventional pattern of spending for large buildings, furniture, books, journals, binding, etc. Moreover, in consortia system, lot of work of acquisition, processing and services will be centralized. Hence, a substantial portion of the fund will have to be either deviated or pooled for consortium. This will need revision in budget process and financial management.

### **Re-structuring the Divisions of the University Libraries**

The conventional classification of work into various departments or divisions or sections of the university libraries and their nomenclature such as Acquisition, Classification, Cataloguing, Circulation, Documentation, Serials Control, Inter Library

Loan, etc. are not relevant in the modern environment of ICTs and the consortia based services. Close analysis of the present pattern of operations and services revealed that a re-definition of the functional divisions of the university libraries as follows is essential:

- i. **Information Acquisition Division:-** This include the work of acquisition of all types of documents such as books, journals, CDs, cassettes, etc.
- ii. **Information Processing Division:-** The classification, cataloguing, development and up-dation of all types of in-house databases, OPAC or Web OPAC management, etc. The process of classification and cataloguing will be centralized at national or global level and hence the main work will be downloading and uploading of data and doing modifications for local situations. Digitization of theses and dissertations will have to be done regularly.
- iii. **Information Services Division:-** Membership management, User orientation and education, Reference, circulation, bibliographic and documentation services, Inter Library Loan, Electronic Document Delivery, CD and Internet based database services, downloading, printing and copying services and all other types of user services can be assigned to this division.
- iv. **Information Technology Division:-** Acquisition and maintenance of computers, printers, copying equipments, systems for Internet connectivity such as V-SAT, leased line, Modems, Switches, Routers, etc., will be the main work of the division. Purchase, installation, training and maintenance of general and library management software, firewalls, etc. are to be done by this division. Web page designing, web hosting, management of electronic marketing and user surveys, etc. can be entrusted to this division.

## **Conclusion**

The possibilities of ICTs, Digital Information, Electronic Document Delivery, Library Consortia, Web based operations, etc. have helped to provide better services to the users. But, wide disparity in the availability and use of academic and research information still prevails among different universities and research institutions in India. Moreover, establishment and maintenance of separate library consortium for each group of government and government supported institutions in a country has lead to the duplication of efforts and additional investment. Since the present pattern of higher education and research is inter-disciplinary, clear cut demarcation of areas of subject interest and information requirement is difficult. That means, the information requirements are cross-disciplinary and also at micro-level. This underlines the need for providing access of information in all subject areas to the students, teachers and researchers in all branches. This justifies the establishment of National Library Consortium which automatically will bring economy, efficiency and equality in information availability and use.

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