LIBRARY NETWORKS AND CONSORTIA IN INDIA

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Pre-requisites

Objectives To study about the Concepts, Definitions Objectives of Library Networks and Consortia in India

Keywords Academic Library Consortia, Consortia management, Networking, E-resources, Library Networks, Consortia Resource Sharing and Networking Information Resources, Library and Information Services, Library Networking

Introduction

The modern communication technologies have become essential for libraries and information centers for resource sharing in recent time. It is all due to that libraries are transforming them selve to information centers as well as to knowledge centre. The ICT is used by libraries to automation, to use for access and dissemination of information to users. Networks of libraries promotes to resources sharing, usage of library collection, problem solving of and delivery of information. The joint efforts of libraries can minimize the problem of duplications of collections.

The best example is set by the Research Library Group (RLG) was founded in 1974 jointly by Columbia University, Harvard University, Yale University and New York Public Library. It is a libraries corporation in which some universities and research institutions participate in its information resource management programmes. The group adopted Bibliographic Automation of Large Library Operations using a Time Sharing System (BALLOTS) of Stanford University. The RLIN (Research Libraries Information Network) system was base on RLG's four principal programmes – Collection Management and Development; Shared Resources; Preservation and

Technical Service and Bibliographic Control. The primary goal of the institutions in RLG was to inform RLG's programmes and services to its members, to build a shared on-line database of their library collections, and cooperation in acquisition, delivery, and preservation of information. In June 2006, RLG merged with OCLC. Its catalogue became part of OCLC's *WorldCat*. Eureka databases were migrated to OCLC's *FirstSearch* service.

By networking of libraries and information centers, modern communication technologies play a dominant role in operation of resource sharing systems and consortia. It can be through: Use of computer and communication network for resource sharing, Use of National, International databases through communication networks and Introduction of full text CD based Systems through Article Delivery over Networked Information System (ADONIS).

Definition and Meaning of Library Networks

A library network is described as a group of libraries coming together with some agreement of understanding to help each other with a view to satisfying the information needs of their clientele. The term 'network' means in the information sense (Kent & Galvin, 1979). The Oxford English Dictionary states that a network is "an interconnected chain or system of things", The National commission on Libraries and Information Sciences (NCLIS), USA National Program (1975) defines a Network as "Two or more libraries or other organizations engaged in a common pattern of information exchange through communication for some functional purpose.

UNISIST II working document defined Information Network as "a set of inter-related information systems associated with communication facilities, which are cooperating through more or less formal agreements in order to implement information handling operations to offer better services to the users.

A network usually consists with formal arrangement of resources, information and services provided by a variety of libraries and other organizations are available to all potential users. Different Libraries may agree to serve one another on the basis of common objectives for facilitating with need of resources and information communication services among them."

Objectives of Libraries Network

- For resource sharing among the member Libraries and Information centers;
- To develop a network among the libraries having same aim/goals ;
- For collection, storage, dissemination of information, Preservation, Technical Service and Bibliographic Control;
- To provide the information services to users and
- To develop a plan for collection development for reducing duplication in documents and in research information

Purpose of Library Networks

- To provide network based services to Users, document delivery services, bibliographic information Services, and human resource development.
- To share information resources for facilitating the research and learning of the sharing group members by collective strengths of the institutions.
- It supports resource sharing and provides services to users through access to electronic sources, and access to physical collections, enhanced inters library loan and document delivery.
- The library network is to promote resource sharing among member libraries by coordinate efforts for suitable collection development, reduce expenditure and duplication.

Growth and Development of Library and Information Networks in India

The report of the working group of the planning commission on modernization of library services and informatics for the seventh five year plan, 1985-90.The National Policy on Library & Information systems document (1986) accepted by the ministry of HRD, Government of India. The report on national policy on university libraries prepared by the Association of Indian Universities (1987) The UGC report on information systems for science and technology under the Department of Science & Industrial Research (DSIR) Government of India has been vigorously promoting an integrated approach to library automation and networking

The growth of Indian library networks may be traced to the efforts made during the last four decades. The 1958 Scientific Policy resolution enabled the appointment of several committees and commissions that looked into specific issues and produced recommendations in the Sinha Committee's Report (1959), the Ranganathan Report to the University Grants Commission(1965), the Peter Lazar Report and the Kamath Report (1972). In 1984 the Working Group of the Planning Commission recommended to the Government the need for modernization of library services and informatics during the Seventh Five Year Plan (1985-1990) (Seshagiri, 1984). The Ninth Five Year Plan (1997-2002) Working Group on libraries and informatics highlighted the challenges to be faced by the Indian libraries of the twenty-first century due to unprecedented developments in IT, networking and the Internet (Government of India, 1996).

University Grants Commission (UGC), Department of Electronics, Department of Telecommunication, Planning Commission and other various Departments of Government of India have also been engaged in establishing various networks.

NISSAT (National Information System for Science & Technology) has been promoting an integrated approach in library automation in the country; the efforts have been by and large, at the institutional level.

The initiatives by NISSAT, UGC, Planning Commission and other departments of Govt. of India have led to increased efforts to the establishment of library networks and library automation in the country.

The present status of library networking in India is that most of the libraries covered by some network are creating databases of their holdings and in automating the library activities. Generally, 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 Centers i.e., the coordinating agencies of the networks also are concentrating on acquiring them to provide the user with access to the total records. They provide such access either by email or online through the telephone network. In addition, these centers also try to provide common software for database development and automation of library activities and services.

Libraries and information networks Recognizing the importance and need for the optimum utilization of available resources several libraries and information networks (LINs) have been developed in different parts of India since 1988. The existing ones include:

- The Information and Library Network (INFLIBNET);
- The Delhi Library Network (DELNET);
- The Biotechnology Information System (BTIS);
- The Scientific and Industrial Research Network (SIRNET);
- The Technology Information System (TIFACLINE);
- The Calcutta Library Network (CALIBNET);
- The Madras Library Network (MALIBNET);
- The Bombay Library Network (BONET);
- The Mysore Library Network (MYLIBNET); and
- The Pune Library Network (PUNENET).

The Information and Library Network (INFLIBNET) (http://www.inflibnet.ac.in)

Information and Library Network (INFLIBNET), a programme of the University Grants Commission, was launched in May 1991. The main aim of INFLIBNET is to establish a national computer–communication network to link libraries and information centers in universities, colleges, universities, UGC information centers, institutions of national importance, R&D institutions, etc., and thereby improve capability in information handling and services. It is a programme for academic excellence to be achieved through establishment of a mechanism for information transfer and access to support scholarship and academic work. It facilitates pooling, sharing and optimization of scarce library resources in the country. As a major programme it helps modernize libraries and information centers in the country through application of information technology. The National Centre of INFLIBNET is located in Gujarat University campus at Ahmedabad. At present, INFLIBNET aims at computerizing and networking of university/college libraries. Every year, INFLIBNET programme is identifying a number of university libraries for automation depending on the budget allocation. The selected institutions are given funds for procuring computer systems, retro conversion and networking. Application software for data entry and other library functions, library standards and formats, etc., are

provided by INFLIBNET to the participating libraries. Manpower development is an important part of the programme. Training courses for core library staff engaged in computerised library operations, have been conducted since 1992–93.Development of suitable software, standards for various library operations and communication based services (*e.g.*, e–mail, bulletin boards) designing suitable network architecture and preparation of union catalogues of serials, books, non–book materials, and cooperation with other networking organisations like NISSAT, NICNET, etc., are other important activities.

The Delhi Library Network (DELNET) (http://delnet.nic.in)

The limitation of financial resources and space for housing library collections in the libraries in Delhi led to the promotion of sharing of resources by automation and networking and establishment of the DELNET in 1988. NISSAT took the initiative in setting up DELNET. It has emerged as an important resource centre for the libraries in Delhi. Presently about 90 libraries are members of DELNET. Almost all participating libraries are now computerized by means of acquisition and fund accounting, cataloguing, circulation, serials control and local users' services. Users are able to locate books and serials through Online Public Access Catalogue (OPAC). A union catalogue of current periodicals available in Delhi libraries, and a union list of current serials available in Indian libraries are available on online for DELNET participant libraries. A central database of DELNET has been created and made operational. This central database includes the library holdings of DELNET member libraries used as union catalogues of books/monographs.

DELNET provides access to the central union catalogue for books and monographs, efficient electronic mailing facilities to access databases of member libraries. It also proposes to develop a network for accessing CD–ROM databases available at member libraries in the near future. DELNET also provides CAS and SDI services, consultancy in library computerization, training and H.R.D. and assistance to libraries on standardization, local automation, retrospective conversion etc. DELNET is likely to emerge as a co–operative network incorporating all disciplines of science, technology, social sciences and humanities.

The Biotechnology Information System (BTIS- NET) (www.nic.in/btis)

The BTIS has been established by the Department of Biotechnology (DBT), Government of India, during the Seventh Five Year Plan (1985-90), to serve as a distributed database and network organization. India was the first country in the world to establish in 1987 a Biotechnology Information System (BTIS) network to create an infrastructure that enables it to harness, biotechnology through the application of Bioinformatics. The Department of Biotechnology (DBT) has taken up this infrastructure development project and created a distributed network at a very low cost.

BTIS is being coordinated by the National Bioinformatics Network with these main objectives: to provide a national bioinformation network designed to bridge the interdisciplinary gaps on biotechnology information; to establish links among scientists in organizations involved in research and manufacturing activities in biotechnology; to build up information resources, prepare databases on biotechnology; to develop relevant information handling tools and techniques; to continuously assess information requirements; to organize the creation of the necessary infrastructure; to provide information and computer support services to the national community of users; and to coordinate efforts for accessing biotechnology information worldwide, including establishing connections with some of the international resources on Biotechnology information, etc. (DBT, 1998a).BTIS is today recognized as one of the major scientific network in the world dedicated to provide the-state-of-the-art infrastructure, education, man power and tools in bioinformatics

The Scientific and Industrial Research Network (SIRNET) (http://www.csir.res.in)

In 1990 the Council of Scientific and Industrial Research (CSIR), New Delhi, set up a computer communication network. Scientific and Industrial Research Network is proposed to interconnect all the CSIR laboratories and other R & D institutions of India. The main objective of SIRNET is to harness the vast S & T information sources available with national laboratories and inculcate the habit of resource sharing among them. The ultimate aim of SIRNET is to link entire scientific community of nation with the national library system and the international links to achieve efficient scientific communication. The objective of SIRNET is to help organize indigenous

online database services on food technology, natural products, chemistry, radio physics, and medicinal plants. It provides access to these databases: the National Union Catalogue of Scientific Serials in India (NUCSSI), the Current Contents of Indian Journals, Polymer Science, the Material Science bibliographic database, the Catalogue of Scientific & Technical Conference Proceedings.

The Technology Information System (TIFACLINE) (http://www.tifac.org.in)

TIFACLINE is designed as a national network for online technology information. It was initiated in 1990 by the Technology Information, Forecasting and Assessment Council, the Department of Science and Technology, New Delhi, and came into operation in 1991. TIFACLINE aimed at integrating technology information available in various national institutions and organizations. It provides broad level information on any technology area that a user might want to access in the form of databases created at various national centers of expertise.

The information content covers initial thrust areas such as ferrous and non-ferrous materials, composites, energy, manufacturing technologies, electronic materials, and food technology. The information includes the status of the project/product, its inputs, outputs, end products, by-products, market information, equipment, and licenses required. The programme aims towards the development of new drugs and cleaner process technologies for known drugs/key intermediates for drugs. The programme covers all systems of medicine - Allopathic, Ayurvedic, Homeopathic, Siddha and Unani.

The Calcutta Library Network (CALIBNET) (http://www.calibnet.org)

In 1993 the CALIBNET was envisaged as a metropolitan network, linking 38 libraries in Calcutta with financial support from NISSAT. Its prime objective is to institute systematic inter-library cooperation and document delivery among the networked libraries for effective resource sharing. The applications to be supported are e-mail, file transfer, remote log-in to databases and document access. It is expected that the constituent libraries of the CALIBNET will first be automated and then networked. These libraries computerize in-house functions such as cataloguing, serials control, acquisition, accounting, circulation and local user services. The Network Services Centre provides global information services for all the users of the

participating libraries. The services include current awareness, union catalogues, access to database, and to national and international networks. The Calcutta Library Network (CALIBNET) was inaugurated on 21 December 1993. NISSAT, Department of Scientific and Industrial Research (DSIR),

The Madras Library Network (MALIBNET) (http://www.angelfire.com/in/malibnet)

It is the first library network established in a small city. The launching of MYLIBNET in association with Mysore city library consortium (MCLC) took place on 12 June 1995. There are 16 institutional members. The holding list of Mysore city libraries has been computerised and software has been developed to enable users to access the catalogue and information online. MYLIBNET provides e–mail facilities to its members.

Academicians and scientists initiated the MALIBNET in 1991 to form a network of libraries in Chennai city. It began operating as a registered society in 1993 using IT to share resources among LICs. The network is composed of around 50 libraries. The main objectives of MALIBNET are: to foster the growth of knowledge and to undertake scientific research in the fields of library, documentation, information sciences and technologies; to evolve a network of LICs initially in and around Chennai and later in other parts of the state; to establish appropriate connectivity with other regional, national and international libraries, information and documentation centers and networks; and to organize conferences, lecturers, workshops and seminars.

The Bombay Library Network (BONET) (http://www.alibnet.org)

The BONET was initiated and funded by the NISSAT during 1994. It aims to make information available to researchers at low cost, using computer-networking facilities and at the same time, enhancing inter-library cooperation among the libraries in and around Mumbai (previously called Bombay). The Bombay Library Network (BONET) was setup at the National Centre for Software Technology (NCST), Bombay, on 6 November 1992. The Network is sponsored by NISSAT. The aim of BONET is to build a low cost library information system which can possibly be used as a model for future expansion of this service even outside Bombay.

BONET also benefits significantly from the experience gained, and facilities created, by the Education and Research Networking (ERNET) project of the Department of Electronics, Govt. of India, assisted by the United Nations Development Programme (UNDP). BONET is aimed at promoting cooperation between libraries in Bombay. The focus is on inter–library activities, rather than on computerizing individual libraries, which will no doubt computerize their own operations and are likely to share their experiences with each other. BONET offers training related to library computerization and networking, and speed up computerization of Bombay libraries.

The Mysore Library Network (MYLIBNET) (http://www.mylibnet.org.in)

The MYLIBNET was set up during May 1995 in the city of Mysore with financial support from NISSAT, and is housed at the Central Food Technological Research Institute. The objectives of the MYLIBNET are: to share resources of libraries; to provide e-mail, to develop software tools for better library management; to create awareness in the field of IT; to set up information bases in collaboration with industry; to disseminate information about new arrivals of books and journals; and to conduct surveys and events like seminars, workshops, or training programmes. MYLIBNET offers assistance services for the automation of library in-house operations, e-mail under ERNET, access to various databases, training of trainers in IT, hosting of member library information on servers for the participating libraries (MYLIBNET, 1998).

the Central Food Technological Research Institute (CFTRI), Mysore, being an active member of Mysore City Library Consortium (MCLC), is hosting this network in its premises. CFTRI is one of the premier Sectoral Centres of NISSAT in the area of food science and technology. With this added advantage, MYLIBNET is working closely with MCLC to promote information services in Mysore city.

Ahmedabad Library Network (ADINET) (http://www.alibnet.org)

Ahmedabad Library Network (ADINET) was formally inaugurated in February 1995 when a memorandum of understanding was signed between NISSAT and ADINET at Ahmedabad. ADINET is a Network of Libraries and Information Centers in Gujarat. It was established in

1994 with an initial grant for a few years from National Information System for Science and Technology (NISSAT), Department of Science and Industrial Research, Government of India, New Delhi. It caters to all types of Libraries: school, college, universities, institutional libraries and even public libraries. Hence, access is provided to hundreds of libraries, librarians and organizations through the ADINET Network.

The main vision of ADINET is to join Libraries, to enable them to achieve what cannot be done by one library alone. This will help them to harness their limited resources and collective strengths so that Libraries can continue to play their historic role as society\\\'s portal to information. ADINET therefore promotes sharing of resources and disseminates valuable information by networking libraries

The Pune Library Network (PUNENET) (http://punenet.ernet.in)

PUNENET is a joint programme of the University of Pune Centre for Development of Advanced Computing and the National Chemical Laboratory. The project is funded by NISSAT. The main objective of PUNENET is to open doors to the information available in the libraries and other resource centres in Pune. PUNENET maintains centralized book, periodical, and professional databases of the participating libraries' holdings. The other objective is to help in increasing cooperation among the participating libraries, and to coordinate their activities so as to serve the user community efficiently (PUNENET, 1999).

Pune-Net establishment in 1992 has accomplished different activities, viz. creation of various databases covering books, journals, library professionals, etc. of the Pune city and made those available on the Internet. Pune-Net (Pune Libraries Networking Project) is a joint programme of the University of Pune, the Centre for Development of Advanced Computing (C-DAC) and the National Chemical Laboratory (NCL) being funded by National Information System for Science and Technology (NISSAT) of the Department of Scientific and Industrial Research (DSIR), Government of India. It is hosted in the Bioinformatics Centre.

Consortia in Academic Libraries in India

Introduction

The concept of resources sharing has provided the common platform for the libraries by forming a consortium among them. Agreements were done to share each other resource among the member libraries. With co-operation it was possible for sharing of union catalogue, document delivery services, storage facilities, collection development and human resources at local, national and regional level. The library co-operation was based on inter library loan services. The users can borrow books, periodicals and other documents which were not available locally. The requests were sent and delivery of materials only through the postal, fax and courier services. Due to the new technologies and internet more and more libraries started getting automated/ computerized for their housekeeping programs.

There have been tremendous changes in the area of library cooperation from 1960s earlier. According to Allen Kent "the success and survival of libraries will much depend on how much and to what extent the libraries cooperate with each other in future". Resource sharing has been the hallmark of libraries for cooperation, coordination and collaboration between groups of libraries at different levels (Nfila, R.B., 2002; Alexander, A. W., 2002; Xenidou-Dervou, 2002). Library consortia or buying clubs for the development can be seen in the history of library teamwork. A Consortium is described as a group of organizations who come together to accomplish combined objectives that are useful in co-operation and the sharing of resources.

Definition and Meaning of Consortia

Consortium is a Latin word, meaning ‘partnership, association or society’ and derives from consors ‘partner’, itself from con- ‘together’ and sors ‘fate’, meaning owner of means or comrade (Singh & Rao, 2008).The ‘consortia’ is the plural form of ‘consortium’ but is often used in place of singular form. It is derived from the Latin word for ‘fellowship’ – the meaning emphasizes coming together of separate groups for a purpose. The term ‘consortia’ is used synonymously as alliance, coalition, collaboration, cooperation, partnership, etc. Consortium is a complicated organization. It is ‘an association’ in the sense that is not commonly understood, i.e. a consortium is not a library association, although some associations of libraries may engage in consortial activities (Scepanski, J. M, 2002).

There are various definitions given in different dictionaries on consortium but the meaning is same in the context of library. According to the Oxford English Dictionary, consortium means a "temporary cooperation of a number of powers, companies, etc. for a common purpose. It is an association of similar type of organization/ institution who are engaged for producing and servicing the common things for providing services for a specific purpose of its users".

As per American Heritage Dictionary (3rd ed., 1993) considered the term – "a cooperative arrangement among groups or institutions. More straightforward description of 'library consortia' would be organizations of libraries formed to realize the benefits and opportunities of collaborative activity. Arnold Hirshonin (1999) defines library consortium more broadly in his definition --- "a generic term to indicate any group of libraries that are working together towards a common goal, whether to expand cooperation on traditional library services (such as collection development) or electronic information services. According to Biswas and Dasgupta (2001), the term 'consortium' can be defined as follows:

"A consortium refers to a "temporary cooperation of a number of powers, companies etc, for a common purpose. It is an association of similar types of organization /institution who are engaged for producing and servicing the common things/for providing services for a specific purpose of its users."

A library consortium is a "community (a cooperative) of two or more information agencies which have formally agreed to coordinate, cooperate or consolidate certain functions to achieve mutual objectives and benefits. Consortia may be formed on a local, regional, national, or international basis; on a functional or format basis; or on a subject basis.

The meaning of consortia is just coming together of libraries having common interests and needs, to achieve a common goal that is beyond what an individual library could achieve on its own. An e-journal consortium means the collaborative acquisition of access rights to electronic databases and journals. The aim of consortia is to achieve what the members of the group cannot achieve individually. From the above definitions, it is clear that the consortium is an association of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objective of participating in a common activity or pooling their resources for achieving a common goal.

Concept of Library Consortia in Academic Libraries

Due to the increasing costs of publications, particularly periodicals and the reducing space capacity of libraries it has become difficult to acquire e- resources. Resource sharing as a concept has evolved into the conception of library consortia. The publishers have also realised this fact for the betterment of their business and they come into agreement with libraries to form consortia for the electronic publications and data bases.

Libraries come together and identify a coordinating agency that coordinates the planning and implementation of the consortia and negotiations with the publishers. The negotiations with the publishers include the identification of the databases to be acquired, access facilities depending upon the number of libraries and users accessing the databases, which include the back- up of the databases. The coordinating agency decides the infrastructural facilities required for access to the databases.

In the beginning, academic libraries formed library consortia for the primary purpose of sharing printed materials. Now, academic libraries are having consortia to provide access to electronic resources. So that maximum use of collection and resource sharing can be done for a long term. A consortium has the ability to share resources without sacrificing the individuality of each member library. In this way users can be benefited by more resources than would be available through one library and electronic resource sharing is possible at the national, regional and local levels.

Types of Consortia Models:

There are many types of consortia that have emerged in India in the recent past are generally based upon factors like participants, affiliations and funding sources (Satyanarayana, N.V., et al, 2004; Patil,Y.M., 2004; Patil,Y.M. et al, 2006; Arora, J. 2005; Goudar, 2002). The following groups with different features represent the range of the library consortia within the academic library community in India (Varaprasad & Madhusudhan, 2010):

- **Open Consortia:** In this type, libraries are free to join and leave as and when they please. Member libraries are usually homogeneous in nature and require cross-sharing of the resources in a specific subject area. The examples are FORSA; SNDT's LISA and INDEST Consortium of MHRD, Government of India.

- **Closed Group Consortia:** As the name indicates, this type of consortium is formed by coalition, affiliation, and collaboration among exclusive member libraries. The examples are CSIR, DAE, and IIMs consortia.
- **Centrally Funded Consortia:** In this type, a parent body or the coordinating agency will have the financial responsibility for running the consortium. The examples are CSIR, INDEST, UGC-INFONET, and ICMR Consortia, etc.
- **Shared Budget Models:** In this type, management of funds and other aspects are handled individually by the member libraries. For example, FORSA; IIMs and HELINET.
- **National Level Consortia: -** This is a model perceived at national level which includes member libraries from one country and for example in India national level consortia is being developed INDEST; UGC – Infonet and ICARNET.
- **Publishers' Initiative**: Certain publishers are also encouraging consortium formation by giving a deep discount in prices to the member libraries. For example, Emeralds' Publishing Group.
- **Institutional Headquarters Funded Consortia:** TIFR (Tata Institute of Fundamental Research); and its branch libraries.
- **International Consortium**: The end of this model is international level.

Growth and Development of Library Consortia

Melvil Dewey wrote about library cooperation in an issue of the Library Journal in 1886 and in 1887 E.A. Mac presented his views on "Cooperation vs Competition" in the same journal in 1888 (Kopp, 1998). American Library Association (ALA) also formed a "Cooperation Committee" whose report was published in ALA Bulletin in 1880s. During a symposium organized by ALA on the topic "The Library of Tomorrow" in 1939, R.D. Downs presented a futuristic view of library cooperation in his paper "One for all; a historical sketch of library cooperation 1930-1970. During 1970 the US Office of Education commissioned the System Development Corporation (SDC) to carry out a nationwide study of academic library consortia to "develop a fund of descriptive and prospective information about the activities of academic library consortia and provide guidance of libraries that were forming or planning to form consortia on the basis of this study two major publications "Directory of Academic Library Consortia" (DeLanoy, Diana D. and Cuadra, Carlos A,1972) and "Guidelines for

Library Cooperation : Development of Academic Library Consortia were brought out (Patrick, Ruth J,1972). By the time the study was complete. 125 academic library consortia were already in existence in the United States. In the late 1980s the first US state-wide consortium –OhioLink–was established. It received widespread attention as they were able to obtain additional state funding for their cooperative work. A trend led by the U.S.-based OhioLink, the Ontario Academic Research Libraries (OARL) consortium in Canada, and the PICA group of universities in Germany and the Netherlands. In Great Britain, Research Libraries UK (RLUK) later came to play a similar consortial role and signed agreement for 3 years with Academic Press (1996).

The India growth of library cooperation activities in India too can be traced back to 1868 when Whitney Stokes compiled the '*Catalogue of Manuscripts'* in various parts of India. This was followed by publication of part first of Sanskrit Manuscripts in private libraries of Northwest Province covering Banaras in 1890.

- Consortium for Material Science and Aerospace Collection (COMSAC) is the first known formal consortia initiative led by the National Aerospace Laboratory (NAL) in 1998 for a few databases.
- Forum for Resource Sharing in Astronomy and Astrophysics (FORSA) in 1981.
- The first limited purpose and successful, consortia-like model is Tata Institute of Fundamental Research (TIFR) in 2000, which used the consortia model offered by Springer for multi-site licensing and cross sharing of content among all the libraries falling under TIFR's affiliation.

- The Council of Scientific and Industrial Research (CSIR) is the first major and formal consortium at national level to sign license to access Elsevier journals in 2001.

- Department of Automatic Energy (DAE) formed a consortium and signed up with Science Direct in 2002.

- Indian National Digital Library in Engineering Sciences and Technology (INDEST) in the year 2003

- Health Sciences Library & Information Network (HELINET) in year 2003
- UGC-INFONET Digital Library Consortium in 2004
- New developments : ICAR, NML, DST, MCIT, DRDO etc

Features of Library Consortia

- Each organizations and institutions can share their resources with each consortium member library and enable each member library's users can use the collections to for their scholarly research.
- Cooperative research and development enhances service and realizes cost effectiveness.
- Staff development and interaction with quality of service.
- It is the cooperative task to reduce the cost of purchase consortia. As a result, end users can take benefits of more resources than would be available through one library.
- To advance library services are provided with an emphasis on access to new E- resources including databases and services offered through the internet and www.

Need for Library Consortia

Due to the development of Internet, World Wide Web and information revolution now information is provided on the desktop of the users. Electronic publishing of scholarly journals, willingness of publishers for consortia has given new opportunities for libraries to provide quick access to information. It is important for academic libraries to form consortium due to the following reasons:

- **Overloaded Budgets:** The price for scientific information is continuous increase and there is always lack of funding for academic libraries for scientific journals. Libraries are spending larger portion of their budgetary allocations for either procuring or assessing electronic resources. A consortium provided the facilities to the member libraries to get the benefit of wider access to electronic resources at affordable cost and at the best terms of licenses.
- **Information Explosion:** The rapid growth in the production of information/knowledge has made it impossible for the individual library to acquire all the relevant information. The libraries have become more and more dependent on mutual lending so as to meet the requirements of their users. A consortium can resolve the problems of managing, organizing and archiving the electronic resources.

- **Self-Sufficiency:** The speedy technological developments have brought libraries under pressure to have new hardware, software and education and training of library staff. With the explosion of information in many forms, it is difficult for every library to be fully sufficient to provide the information needs of its user. Financial constrains, space, human resources inadequacies are also the need for the libraries to opt for the consortia approach.
- **Publisher's Interest:** This approach has helped to get attractive discounted rates and most of publishes responded positively to the call of consortia and are enthusiastic to give the best possible offers. Another reason for the eagerness of publishers to enter the Indian market, which holds very high future potentials.
- **User Demands:** The technology has changed expectations of researchers, their patience, and their willingness to accept services that are available on demand. The Web-based electronic resources are an apt answer to the expectations of users. Library users want to have access to that material as quickly as possible, and many of them want information at their computer screens.
- **Speedy Access*:*** The technology provides greater speed, economy in the delivery of information. The application of new technologies i.e. WWW has helped the users in delivering fast information of their need.
- **Quality of Research:** The research productivity of all institutions is expected to improve with increased access to international e-databases and full-text resources, so libraries are willing to add electronic resources to their collection and opting for consortia approach.
- **Changing role of Librarians:** This concept has tremendous influence on the consortia initiatives. The changing role of librarian as a conservator to a navigator/disseminator of information has enhanced the value of library consortia.
- **For the up-date developments*:*** Consortia help to have a watchful eye on coming latest technological changes in publishing industry and associated legislations which can affect the libraries directly or indirectly.

Objectives of Library Consortia

- To develop a co-operative and consortia solutions for the challenges faced by member libraries, in the acquisition, processing, storage, preservation, exploitation, dissemination and delivery of information and library materials, for the benefit of their institutions;

- To assist libraries in the consortium to pursue and achieve their own institutional objectives;
- To provide strong leadership and opportunities for innovation for the research communities;
- To provide the community with physical and virtual access to the shared resources of all libraries;
- To provide a framework of mutual support, enabling its members to develop individual and collective strengths;
- To identify priorities for funding within libraries and to be proactive in influencing national agendas/priorities for funding for research support;
- To Influence national agencies engaged in consortia purchase activities, in order to ensure the needs of research and scholarship remain a priority;
- To publicise and disseminate information about libraries and its activities as widely as possible in appropriate contexts;
- To make appropriate responses to consultation processes;
- To provide access to the bibliographic records of all libraries members;
- To implement a policy for better access to and provision of catalogue records for serials;
- To enrich the provision of machine-readable bibliographic records for print and non – print resources housed in member libraries;
- To provide access to consortium holdings recorded on consortium union catalogue to know the location of information; and
- To provide metadata for the electronic resources accessible from consortium libraries.

Advantages of Consortia

Some of the important advantages of the library consortium are as following below.

- Consortia-based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost; It provides each institution with the ability to share resources without sacrificing the individuality of each member library;
- The collections of the Consortium libraries enable each member library to support scholarly research for its users;
- Optimum utilization of funds.

- Facilities to build up digital libraries
- Helpful to provide better library services like CAS and SDI
- Cost Sharing for Technical and training support Cooperative research and development in application of information technology enhances service and realises cost efficiencies;
- Electronic Journals demand neither library space nor shelling costs nor can they be stolen from the library
- The consortium has been offered better terms of licenses for use, archival access and preservation of subscribed electronic resources.
- With less economy expansion, staff development and interaction enhance the quality of service; Reduction in cost is achieved by forming a consortium.
- The end users can reap the benefits of more resources than would be available through one library as the consortium acts as an means for all member libraries and negotiates a purchase price that is lower than that available to individual institution;
- Provides better library services with an access to new electronic resources including online databases and services offered through the Internet and World Wide Web.

Disadvantages of Consortia

Some of the important disadvantages of the library consortium are as following below.

- Nonexistence of a printed copy of Journals
- Require training of staffs in handling electronic documents etc.
- Consortia require investments in licensees and information and communication technology.
- Copyright problems
- Unreliable telecommunication links, Internet Access and insufficient bandwidth
- Lack of archiving and back files availability
- Users interest for accepting or not accepting of electronic format, e-journals

Library Consortia in India are as following:

CSIR (Council for Scientific and Industrial Research) (www.csir.res.in)

NISCAIR (www.niscair.res.in) is the central organization for developing a "Consortium for CSIR Laboratories for Accessing e-journals". The activity shall range from creation to

monitoring of the access facility of scientific periodicals published by leading international institutions. To start with, an agreement has been signed with, e-journal publisher, M/s Elsevier Science for a period of four years for 1200 journals. Under this scheme, CSIR scientists shall be able to access these journals and download material for their respected subject. Such access to worldwide journal resources will play a very vital role and strengthen research and development in CSIR laboratories, thus leading to knowledge generation useful for socio-economic development of the country.

The objectives are to strengthen the pooling, sharing and electronically accessing the CSIR library resources. To provide access to world S&T literature to CSIR labs and to nucleate the culture of electronic access resulting into evolution of digital libraries.

FORSA (Forum for Resource Sharing in Astronomy and Astrophysics)

(http://www.iiap.res.in/library/forsa.html.)

It became into existence in the year 1982, for sharing the resources available in astronomy libraries in the country. The list of institutions are the members of this forum, viz; Indian Institute of Astrophysics (IIA)-Bangalore, Inter University Centre for Astronomy & Astrophysics (IUCAA)-Pune, National Centre for Radio Astrophysics (NCRA)-Pune, Physical Research Laboratory (PRL)-Ahmedabad, Raman Research Institute (RRI)-Bangalore, Tata Institute of Fundamental Research (TIFR)-Mumbai, UP State Observatory-Nainital, and Nizamiah Observatory-Hyderabad, It has been reported that the FORSA Consortia to become a member of ICOLC. IIA Library will be taking up the issue. FORSA National and International activity includes, Round table on Consortia Models in India,

HELINET (Health Sciences Library & Information Network)

(http://jgate.helinet.informindia.a.o.in)

A Health Sciences Library & Information Network hosted by Rajiv Gandhi University of Health Sciences, Bangalore. HELINET is the first medical library consortium launched in the country with an objective of networking the libraries affiliated to the University to promote resource sharing, especially with reference to international medical journals and databases. The health science education in India and the status of IT and Internet access infrastructure in the health science colleges. The Digital Library resources and activities at RGUHS are presented in detail. The HELINET is the first resource sharing network and e-journal consortium in the medical

education sector. As an imperative of e-journal access, HELINET required an e-journal access gateway to act as a common search and access interface for all the e-journals that HELINET would subscribe as part of its consortia licensing and the libraries might independently subscribe for the titles not available through consortium. HELINET adopted an indigenously developed and locally available e-journal gateway for its need. J-Gate enables online access to all the consortia members for the e-journals subscribed by the consortia. It further enables shared access to printed journals through its customized database service.

ICICI Knowledge Park (Industrial Credit and Investment Corporation of India) (www.ikpknowledgepark.com)

ICICI Knowledge Park (IKP) nestles in a 200-acre pollution free zone in Genome Valley, Hyderabad. The master plan of the Park mirrors its objective of nurturing an environment for innovation and the expected growth in life sciences and related fields. It has a mix of ready-to-use multi – tenanted modular wet laboratory blocks (Innovation Corridors) with in- built flexibility around some common, shared facilities and support services, as well as developed land for customised R&D facilities. IKP provides a range of support services to the resident companies to create a congenial stress-free environment and ensure customer delight.

IIM's Library Consortia (The Indian Institute of Management)

(www.iimsworld.in/consortium.html)

IIM Library consortia is a Digital Library network system based on internet technology to provided the IIM community (faculty, students and staff) an online web enabled access to the information resources available in all the IIMs without any barriers of time and distance. It will be a simple, efficient and cost effective system. The basic operating principle of this system is decentralized acquisition, decentralized processing and centralized utilization.

INDEST (Indian National Digital Library in Engineering Sciences and Technology) (http://www.incest.iitd.ac.in)

The Ministry of Human Resource Development (MHRD) has set-up the "Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium" on the recommendation made by the Expert Group appointed by the ministry under the chairmanship of Prof. N. Balakrishnan. The Ministry provides funds required for subscription to electronic resources for (37) institutions including IISc, IITs, NITs, IIMs and a few other centrally-funded

Government institutions through the consortium headquarters set-up at the IIT Delhi. Besides, (60) government or Government-aided engineering colleges and technical departments in universities have joined the Consortium with financial support from the AICTE. The INDEST-AICTE Consortium is the most ambitious initiative taken so far in the country. The benefit of consortia-based subscription to electronic resources is not confined to 38 major technological institutions in the country but is also extended to all AICTE-accredited and UGC-affiliated institutions. (161) engineering colleges and institutions have already joined the consortium on their own. Recently (462) engineering colleges and institutions joined under self support- new scheme. The members of JCCC-INDEST are categorized as Level I members and Level II members and Level III members.

UGC-DAE library (Department of Atomic Energy) Consortium for Scientific Research (www.csr.res.in)

To promote interaction amongst the scientists working in the research centers of the Department of Atomic Energy and the faculty from the universities and other institutions of higher learning, and to enable young students to work on programmes of national importance under the joint guidance of the faculty from universities and the scientists of DAE so as to nurture an organic linkage between the university system and research centers of DAE, the University Grants Commission and Atomic Energy Commission have joined hands. With a view to make available DAE will continue to make the major research facilities accessible to the researchers from the universities and institutions of higher learning through the consortium. It will also make available the infrastructural and accessorial facilities such as laboratories, library, workshop etc. necessary to carry on the research work.

UGC-Infonet (University Grants Commission) (www.infilbnet.ac.in)

UGC-Infonet E-Journals consortium initiative was undertaken by the Indian University Grants Commission (UGC) to facilitate free access to scholarly journals and databases in all fields and disciplines by the research and academic community across the country. All universities who are under the purview of UGC have been provided UGC-infonet connectivity and access to scholarly e-Journals and Databases. More than 2,000 scholarly journals and databases were made available during 2004 and this number has increased to more than 4,500 full text e-journals since January 2005. As of May 2006, 122 universities are accessing resources from the programme. The access

is based on IP range. This effort has had a noticeable impact on the research and academic community.

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