Chapter 3

Resource Sharing and Networking
3.1 Introduction

We are in an age of information explosion. There has been an exponential growth of documents in recent past in a variety of forms and media and through different channels. Increasing price, high inflation rate and worldwide resource crunch further aggravate the situation. As a result, it is virtually impossible for any library to be self-sufficient to fulfil the information needs of its users. Cargill and Graves\(^1\) state "No library can afford to acquire even half of the published material, both in terms of cost, and the investment in space and personnel time required to process and provide access to a burgeoning quality of information. An average size library at a college or university may subscribe to 3,000 to 10,000 journal titles, a fraction of nearly 2, 60, 000 possible acquisitions".

Multiple reasons such as limited resources, price rise, lack of proper distribution channels, a variety of non-profit publishing agencies etc. coupled with inter-disciplinary subjects and scattering of literature in uncommon sources further compound the problems. All these factors in the due course of time have led to the recognition of the concept of cooperation and resource sharing among libraries.

3.2 Library Cooperation

Cooperation in libraries is considered a concept developed in the late 19th Century and the beginning of 20th Century. In fact books themselves represent a kind of cooperation for communicating individual experiences to society and this in turn, led to creation of more knowledge and thereby creation of libraries to systematically organise and retrieve the knowledge, when needed. Library cooperation consists of borrowing and lending the reading materials. Cooperating library is "a library that joins with another library or group of libraries in some common plan, such as coordinated development of collections and services or contribution of to a union catalogue."\(^2\) observes that in modern times the cooperation is found helpful in following main activities in libraries:

1. Acquiring books - selection, ordering, and purchase, etc.
2. Recording books - cataloguing and classification
3. Making them available - their own books by consultation and lending books not held by them by borrowing from elsewhere.


He also states that the main argument for cooperation is surely not financial at all. It is simply that no library can be self-sufficient. Access to the collection of resources is the basic theme around which the library cooperation revolves. Lot more efforts have been made throughout the world in the area of library cooperation, viz., cooperative acquisition, cataloguing, storage and so on. The psychological, geographic, organisational and historical barriers coupled with application of computer technology gave rise to the concept of resource sharing which, in fact, is an improved version of library cooperation having formal agreement between libraries for mutual benefits.

### 3.3 Resource Sharing

The term 'resource' usually means human, finance, and materials. It applies to anything, person or action to which one turns for aid in time of need. The word 'sharing' connotes apportioning, allotting or contributing something that is owned to benefit others. In case of libraries, it signifies sharing of library materials and functions in common by a number of libraries for benefit of each other.³

Resource sharing in libraries is a mode of operation, whereby functions are shared in common by a number of libraries. "Resource sharing, in its most positive aspect entails reciprocity, implying a partnership in which each member has something useful to contribute to others and in which each is willing and able to make available, when needed."

According to Khanna,⁴ "resource sharing signifies a symbol of good will, intent to share resources, knowledge, bibliographical data, facilities and other fruits of modern technology, man's ingenuity, and the results of accumulated wealth of knowledge. It implies:

1. A degree of democratisation of information, in which all information is made as uniformly available as feasible;
   1. A steady increase in the ability to serve at all points of service;
   2. A cooperatively sharing the resources of many libraries;
3. A division of function based upon efficient utilisation of the cooperation network;
4. An increasing degree of specialisation in the collections and interest of individual libraries, so that intellectual and financial resources are not dissipated in duplication of broadly available material;
5. A sense of responsibility by the individual library to serve others and to support the costs of operating collections on which it may draw;
6. Willingness on the part of libraries to cooperate in a voluntary, but responsible manner, including a willingness to accept certain common standards of cataloguing collection and methods of operation;
7. The creation of new view of library, on the part of librarians and users - as the place to go for information service of all kinds;
8. That the potential pain is worth the risk of some loss of individual achievement;
9. That effective cooperation depends upon adequate resources, administrative ability, and efficient communication;
10. That all libraries must maintain an attitude of flexibility and experimentation.

3.4 Objectives of Resource Sharing

The objective of resource sharing activity is to create an environment in which the librarian can offer better services and more materials without any extra financial involvement. Four objectives of resource sharing have been identified, viz., conceptual, operational, behavioural and research. Some of the important objectives of resource sharing are enlisted below:

1. Assisting member libraries in selection, procurement and processing of materials;
2. Coordinating acquisitions, inter-library loan and reproduction of materials for the member libraries;
3. Promoting expanded use of library resources;
4. Improving library facilities and services;
5. Cooperating in the training and development of personnel;
6. Achieving economy in the use of human and material resources; and
7. Facilitating sharing of materials among participating libraries, which are beyond the reach of individual libraries.

Due to the shift of emphasis from the collection of documents to access of desired information and that too in most effective and efficient manner, there have been consistent efforts to achieve the objectives in best possible ways. Improved approach to these objectives discernible in recent literature may be summarised as under:

a. Improvement of bibliographic access, i.e., the information needed to identify documents, their existence and location; and
b. Improvement of physical access, i.e., the delivery of the published item in textual or copied form.

Currently, the emphasis has been shifted from collection development and acquisition to access of information and from information access to delivery.

3.5 Need for Resource Sharing

Information is an essential ingredient of all human activities. It acts as a medium for communication of ideas, a resource for research and development necessary for the sustenance and progress of socio-economic well-being. The need for a variety of information along with many complexities in its dissemination and access has necessitated resorting to this phenomenon. The various factors, which have influenced and increased the current pace of resource sharing activities, are:

i. Ever increasing inflationary trends;
ii. Spiralling prices of reading materials;
iii. Decreasing budgets size and buying capacity;
iv. Exponential growth of publication and relative scarcity;
v. Growth of inter-disciplinary subjects and obsolescence of knowledge;
vi. Increase in variety and degree of user demands and growing awareness for access to information;
vii. Change in emphasis from ownership to collective access, holding to document delivery, materials to client centred approach and document delivery to information delivery;
viii. The advent of increasingly effective information technology; and above all,
ix. Growing willingness to share resources.

3.6 Growth of Publications

The libraries are confronted with the unchecked growth of publications with an ever-increasing rate. These publications are being published and distributed through non-trade channels. The institutional publications under grey literature with fewer profit avenues pose a complex problem. In this situation, it is not possible for any library to procure everything even in a minute subject area and claim for self-sufficiency. He maintains that the rate doubles every eight to ten years and by the end of the century, 15,620 million documents will be produced annually. Chowdhury\textsuperscript{5} states "Knowledge is being created currently at rates never before imagined and thus is because of the multiplier effect, of the influence of ideas triggering new ideas and these leading to inventions and discoveries." He further quotes that the number of scientific papers has increased from 10 million in 1970 to 40 million in 1996 and Chemical Abstracts has added 3,40,000 items in 1970 which increased up to 15,00,000 items in 1995.

3.7 Library Collection

The efficiency of its services and the satisfaction level of the users gauge the importance of a library, which in turn is dependent on quality and strength of library collection. It is the collection of reading materials, which is shareable. Without rich and up-to-date collection, resource sharing cannot be imagined. To be effective, a library must be able to provide appropriate information or document to meet the user needs. The appropriateness implies that the collection shall be planned and developed in accordance with well-defined objectives, policies and procedures.

A library collection is the sum total of the library materials which includes library books, manuscripts, journals, reports, microforms, films, databases and so on. Collection development is a term which has replaced the term book selection and acquisition. In fact, collection development is a broad term and book selection is an activity of this process. The collection development programmes are guided by users point of view and hence the collection should be adequate, up-to-date and capable of meeting the present as well as future needs of the clientele.
The A.L.A. Glossary of Library and Information Science defines collection development as "a term which encompasses a number of activities related to the development of the library collection, including the determination and coordination of selection policy, assessment of needs of users and potential users, collection use studies, collection evaluation, identification of collection needs, selection of materials, planning for resource sharing, collection maintenance and weeding."

"Collection development is the process of planning a stock acquisition programme not simply to cater for immediate needs, but to build a coherent and a reliable collection over a number of years to meet the objective of the service." The process of collection development may be summarised as embracing the following activities:

i. Acquire/collect and provide all relevant materials to its clientele. Building comprehensive and specialised collection in specific areas to support research programmes and developing collection in borderline subjects of general interest along with areas of immediate concern;

ii. Evaluation of existing materials and add only those which serve maximum number of clientele;

iii. Continuous study and surveying the use of collection; and filling up gaps;

iv. The replacement of worn out or mutilated materials and, thus, reduce maintenance cost;

v. Preservation and conservation of materials;

vi. Removal of less used and out-dated materials.

The exponential growth of knowledge and number of scientists are increasing consistently. The yearly increase in the cost of scientific and technical literature by about 10 per cent coupled with budget restriction make it virtually impossible for any individual library, however, resourceful it may be, to claim self-sufficiency. The libraries like other organisations face various social, economic, cultural, political and technological changes. Singh states "Experiences show that there has been continuous economic recession throughout the world and there seems to be no hope of any improvement of this trend in near future. He further enlists following reasons for financial pressure and increased spending in academic and university libraries:

i. "Increased number of information seekers;
ii. Varying demand for current, more specific and depth information and services;
iii. Multiplicity of information sources through various channels in many forms and languages;
iv. High inflationary rates and rising cost of documents and staff;
v. Opening of new fields of scholarly interest and information scattering; and
vi. Need for specialised manpower for the adoption of technological developments."

The libraries, therefore, have no option but resort to cooperative agreements and resource sharing. The librarians wishing to play an active role in chain must consider:

i. Assisting the readers in receiving the necessary document/information and referring to a library where it is available;
ii. Developing resource sharing methods that are inexpensive to the end user and are convenient and easy to approach.

With the advancement in information technology and its increased application in libraries, the communication process has become very fast. Application of electronic mail and use of Internet has significantly changed the scenario. The non-formal channels of publications have emerged. A great deal of nascent information among researchers is passed on from information generator to user by phone, e-mail and so on and this scholarly communication is termed as invisible college, where user and creator are in direct touch without any intermediary.

3.8 Information Technology

The availability of library records in machine-readable form is the basic requirement for efficient resource sharing. We find the extensive application of information technology (IT) has revolutionised the conceptual framework of library services and has led to the process of resource sharing and networking among libraries a reality. It may be seen that out of five important technologies namely, information technology, biotechnology, space technology, nuclear technology and materials technology, which have influenced our life at work tremendously, the IT is
the one having potential to influence all other. There is no area, which has escaped the impact of this versatile technology. It holds true with the world of library and information dissemination.

IT is not a single identify. It is considered as an amalgamation of three technologies (i) Computer Technology, (ii) Data Communication Technology, and (iii) Document Reproduction Technology.

Prem Singh lists out following problems posed by the process of information explosion in managing libraries with traditional methods:

i. Problem of acquiring information;
ii. Problems of organising information;
iii. Problem of disseminating information;

a. Problems of providing reference services

i. Problems of information analysis and consolidation i.e. bibliographic services, document reproduction services etc., and Space problems"

He further elaborates "Libraries found the solution of the above problems in the application of the following technologies and techniques:

i. Use of computing technology;
ii. Use of data communication technology;
iii. Use of document reproduction technology;
iv. Use of compact discs; and
v. Use of compact shelving."

It is discernible from the literature that the new ITs provide libraries with a new and fast set of alternatives for gathering, organising and using information. The advantages of using IT in libraries have been summarised below:

i. Redundancy of dept. classification
ii. Enhanced productivity
iii. Enhanced efficiency
iv. Provision of quality information services
v. Provision of exhaustive information
vi. Use of national and international databases through network
vii. Use of compact disc - read only memory (CD-ROM/DVD-ROM) for faster access to information and saving of space."

3.9 Problems in modernisation and Adoption of IT

It is seen that introduction of IT in libraries is not that simple. Numerous problems are encountered in the process. However, the application and adoption of information technologies help libraries to improve overall performance of library services with greater accuracy, speed and effectiveness, the modernisation of library and information services in India have not been attempted vigorously. Some of the problems in IT application are listed below:

i. Lack of planning
ii. Financial constraints
iii. Choice of hardware and software
iv. Special barriers
v. Resistance to change
vi. Retrospective conversion of records into machine-readable form
vii. Lack of suitably trained manpower
viii. Lack of resources and infrastructural facilities

In the changed environment with an onslaught of ever improving IT, the libraries are left with no option but to go in for these technologies. Emphasizing the need for adoption of IT, it is stated that "Failing to keep abreast of rapidly changing technology in products and processes is an obvious, excessive and potentially lethal cost: an equivalent of the cost of man conformance, which is the hidden burden bending the backs of libraries without modern quality management."

3.10 Resource Sharing Tools

Resource sharing tools are the building blocks containing machine-readable records of various resources or documents available in the library. These tools facilitate information about the resources of libraries. Effective resource sharing can only be done if; appropriate resource sharing tools are available. The beginning of the creation of such tools may be traced with the preparation of catalogues of
libraries, subject bibliographies, the union list of periodical holdings etc. These records have changed from time to time from card catalogue and printed catalogue to the database, CD and online database forms, which are in machine-readable forms. The essential tools for effective resource sharing are briefly discussed herewith.

3.11 Databases

According to Convey\textsuperscript{9}, "databases are collections of records in the machine-readable form that are made available for searching from remote computer terminals. Exchange of information through electronic mail, online facility or a terminal is possible if a machine-readable database exists. In bibliographic databases, the bibliographic details of a document facilitating its identification, storage and retrieval are contained. The databases created by libraries or information centres of their holding are termed as an internal database. Online databases or CD-databases about one or more libraries are known as external databases. Machine-readable databases are essential for resource sharing. It means that the participating library must strive to develop a database of their collection in machine readable or electronic form.

3.12 Cooperative Collection Development

Appropriate collection development is an essential step for developing efficient resource sharing tools. Creation of collection development policy and its implementation in the libraries of institutions having similar subject interests may be easier to practices. Lander\textsuperscript{10} notes "the libraries are looking at the networks for help in order to reduce expenditure on material cost." Nevertheless, at the same time the participating libraries must strive to build up the core collection of documents, which are frequently used. The libraries should not depend on others for everything. Keeping in view the specialised needs of the researchers, it is essential to specialise collection of materials and technical reports. Kaul\textsuperscript{11} observes, "It does not help to entirely depend upon electronic databases for resource sharing purposes" Also in order to avoid duplication, it is one of the important functions of a library network to help the participating libraries to check their lists of books to be ordered with the union catalogue of the network.
The experiences reveal that for effective pre-order verification the willingness and commitment of participating libraries to strictly follow provisions of collection development policy is an essential requirement. However, in the larger network, it may not be a feasible practice. It is observed "Developing Library Network (DELNET) libraries do not use union catalogue before ordering because resource sharing among libraries is limited to inter-library lending (ILL) facility only. In smaller and subject specific networks, it is advisable to have a collection development policy to be followed by participating libraries for developing rich and update a specialised collection.

3.13 Union Lists and Catalogues

Union lists of the holding of periodicals and union catalogues of documents available in the participating libraries are important resource sharing tools. These can facilitate actual location and faster delivery of documents. The union catalogue of books created by DELNET is the example where participating library's data is merged in the existing database after checking the duplication.

The union catalogue may not be effective if the retrospective conversion of records of participating libraries is not completed using standard norms. Retrospective conversion of records becomes essential as a resource sharing tool. In fact, it is the backbone of the resource sharing tools. Conversion of old records into machine-readable form is of great concern, especially in developing countries. It involves handling of the tremendous amount of data and the problem becomes more complex in want of resources and suitably trained manpower. It is observed that most of the libraries in India are facing the problem of retrospective conversion of records due to resource and staff problem.

3.14 Online Public Access Catalogue (OPAC)

The online public access catalogue (OPAC) of the individual participating libraries available through the internet is another important source indicating a location of documents from remote locations and non-participating libraries. This
also facilitates getting information about latest arrivals etc., which are usually not available through union catalogue.

The CD-ROM database provides a faster and more efficient means of end-user searching and works as an important resource sharing aid. A CD-ROM union catalogue can offer an offline access to the resources of a library network, which is convenient as well as inexpensive. It is going to further enhance and revolutionise the resources sharing process.

Digital libraries are now growing as the important tools for resource sharing. The establishment of digital libraries comprises of following major steps:

i. Digitization of existing library materials
ii. Their connectivity to the users worldwide
iii. Integration with the networks
iv. The availability on the World Wide Web (WWW)

The information transfer in digital form is very fast and less costly. This plays a significant role in reducing the time gap from access about information to delivery of information.

World Wide Web (WWW) is also a major tool for resource sharing. Huge information base is available through the internet. However, one has to evaluate and identify the right type of resources to make efficient use of the facility. It has been indicated through literature that owing to the enormous growth of WWW the virtual libraries will become a major source of information. They will have no physical presence and will be accessed from any location.

### 3.15 Resource Sharing Barriers

Based on the experiences and problems faced in the implementation of resource sharing process, the idea of sharing has not been favoured by few to the desired extent. Several experts have identified these problems/barriers in a different context. It is said that the document delivery and availability of the information from libraries take considerable time whereas their library could have procured the same, but for resource sharing process. The reasons levelled for this dissatisfaction are goal
displacement, improper discretionary behaviour, insufficient education of library managers and conflicting views on the mission of libraries.

According to Woods et al., there are four sources of resistance to resource sharing:

i. Economic resources
ii. Political decisions and neglect
iii. Personal and professional concerns
iv. Social and cultural pressures.

They are also of the opinion that in developing countries the basic structures for the library may not be available for many years. Bramin lists out following obstacles to resource sharing efforts:

1. A desire for everything here and now
2. Changing priorities for collection development
3. Control of collection policies and priorities
4. Staff and faculty attitudes
5. Document delivery time
6. Lack of awareness among users about cooperation
7. Lack of needed support services
8. Lack of required administrative structure and support
9. Non-conducive political environment
10. Reluctance to yield autonomy
11. Lack of common language for analysis and description.

The resource sharing in libraries has been sufficiently attempted in the United States. Many a time’s users are not satisfied. The major obstacles confronted by the user community may be summarised as under:

1. All academic libraries have the common materials for undergraduates and sharing of common materials is unintelligible
2. Documents dealing with the latest branch of knowledge are not reflected as subject catalogue does not provide entry under that subject term
3. Due to the backlog at the cataloguing stage the union catalogue of libraries do not include the information about the availability of documents even if the documents are in the holding of libraries.

4. The libraries do not address to the scholar's needs. The measures adopted for strengthening the subject collection disallow procurement of materials of interdisciplinary nature, which are found useful for research.

5. Since no library can collect all retrospective material on any given subject, the research needs of such scholars are not met within the specialised library and user may get the same in some other library.

6. The old and rare printed materials are never available through resource sharing.

7. The stringent rules of the libraries pertaining to admission and number of pages to be xeroxed are discouraging factors.

8. For the sake of preservation, the original materials are not made available, which results in rendering the material useless. Original documents are considered more significant in some instances.

9. The concept of the library without wall becomes meaningless because access to materials delayed or restricted is equivalent to access denied.

Out of several barriers hampering the resource share activities, some can be overcome and the impact of some other can be minimised. In practice, it is found that most of the barriers are just perceived and psychological. It is necessary to overcome the susceptibility of users and the librarians for the sake of improved information accessibility and other related benefits. However, the advancements in IT have been able to subjugate most of the perceived barriers and most of them have no meaningful impact. R.G. Prasher\(^{14}\) lists the following barriers that hamper resource sharing:

1. Attitude of some of the librarians is conservative and are unwilling to part with the material for resource sharing or do not take up additional responsibilities

2. Restrictions, mainly local in lending the library materials to others
3. Due to limited resources, libraries may not participate in ILL
4. Lack of adequate funds can hamper resource sharing programme
5. Shortage of staff for handling ILL requests
6. Lack of reprographic facilities
7. Distances between the libraries and lack of proper communication system
8. Lack of awareness about the usefulness of resource sharing.

In addition, some of the other barriers that come up in the way leave resource sharing a concept at times. Prasher further refers to the following regulations that are important and need to be introduced for smooth resource sharing among participating libraries:

(a) Interlibrary Loan

1. Borrowing library will bear the expenditure
2. Books taken on loan are to be returned within the stipulated time
3. The books on loan should not be issued out by the borrowing library
4. The reader for whom the book has been borrowed should use it within the library
5. If necessary, the reproduction of any part of the document may be made permissible
6. Lending libraries may not loan rare materials
7. Request for a book which costs less than five rupees and is easily available for purchase should not be made
8. Borrowing library will be solely responsible for the safety of the document.

(b) Cooperative procurement of books and other documents, which could be economically desirable, does not happen.

(c) Cooperation for the centralised system for classification and cataloguing which would reduce duplication does not happen.

(d) Preparation of union catalogues could be done cooperatively for resource sharing.

(e) Cooperative storage could also be achieved if the institutions retained the weeded out books and journals at one place both for storage and reference.
(f) Non-cooperation in documentation work results in duplication in documentation work by the institutions specialising in the same subjects.

(g) The exchange of surplus/duplicate copies of journals and books can fill vital gaps in the libraries. Cooperation in this regard is very scanty and it can be promoted only if the management has liberal policies and the librarians make an extra effort to inform intended libraries about their surplus stocks.

(h) The exchange of experts in the library and information science field is becoming increasingly important as information technology is changing very fast.

All these aspects need to be examined thoroughly and corrective measures must be contemplated before embarking on the system. The concept of resource sharing has many benefits for the users and library managers as well. The judicious handling of its implementation pre-supposes consideration of the user's satisfaction and ease of working to the highest level and procedural and policy readjustments at various levels. Dougherty\textsuperscript{15} rightly states "library resource sharing systems will have to conform to the spirit of the age if they are to be useful to the majority of information seekers."

3.16 Library Networks

Library networks can be termed as the centres of resource sharing. The concept of resource sharing among libraries is not new. Taking clue from the experiences of the society and compulsions of interdependence in all spheres of man's journey of development, the libraries also resorted to networking and resource sharing for maximising the use of their resources and satisfying the growing users demand. There has been the tremendous growth of information and it becomes extremely difficult to acquire all published materials by a library even in its specialised subject field. The unchecked information generation, escalating the cost of materials, increasing the cost of processing of documents and database creation, decreasing budgets and advances in IT have stressed the need of network based cooperation.

There is a slight difference, that too of approaches, in resource sharing and networking. In a true sense, these are two sides of a coin attempting to strive for the same objective i.e. dissemination of right information to the right user with utmost
accuracy and speed. "As long as we operate with print on paper collections we need to share those collections. As we move increasingly into electronic based information, we can see technology and networks working together to reduce the physical movement of materials," clarifies Molholt.

Networking enables to have access to the resources available even at distant places. When two or more than two libraries and their data get connected through communication links, the online exchange of data from one another starts and this is known as networking.

The meaning and scope of networks has been changing since its application in the 1970s. According to Markuson "library network is a specialised type of library cooperation for centralised development of cooperative programmes and services, including use of computers and telecommunications and requiring the establishment of a central office and a staff to accomplish network programmes rather than merely to coordinate them. Programmes require significant funding and usually formal contracts are required between users and the network, which is, in most cases, a legally established corporate entity."

Raynard C. Swank defines library networks as a "Concept that includes the development of cooperative systems of libraries on geographical, subject, or other lines each with some kind of centre that not only coordinates the internal activities of the system but also serves as system's outlook to, and inlet from, the centres of other systems. The concept is also hierarchical…"

### 3.17 Objectives of the Library Networks

The objectives of the library and information network are enumerated as under:

- To share the resources among libraries
- To share the cost
- To share efforts, expertise and technology
- To standardise input, output and processing of resources
- To undertake scientific research in information science and technology
To offer technical guidance to member libraries on collecting, storing, sharing and dissemination of information

To coordinate efforts for suitable collection development and to reduce unnecessary duplication

To maintain bibliographic database of books and non-books material

To process and maintain electronic and mechanical equipment for speedy communication of information and delivery of electronic mail

To coordinate with other regional, national and international networks and libraries for the exchange of documents and information through online, email and Internet.

Shared cataloguing, online reference, shared circulation and online transmission of information are some of the services provided by networks.

3.18 Types of Library Networks

The main objective of library networks is to facilitate efficient and effective use of resources, to avoid unnecessary wastage of scarce resources. Different types/models of networks came into being to achieve higher user satisfaction without involving extra costs on materials. The following are some of the models

(i) Collection centred Cooperative Networks

These networks mainly concentrate on collection development process based on the present and anticipated future needs of the users. The sharing of collection could be done through a memorandum of understanding between the participating libraries providing better access to resources to the users. The Triangle Research Library Network in North Carolina (USA) is an important example of this type.

(ii) Client centred Cooperative Networks

In this case, one library is used as a centre resource and other libraries participate in the network.

(iii) Resource sharing Network

In this type, participating libraries pay attention to developing core collections. Other materials are not duplicated.
(iv) Multi-type Library Network

This is a consortium of all the libraries in a geographical area, which is generally small. According to McClarren, multi-type is an inter-library activity involving two or more types of libraries (i.e. academic, public, school and special); …" Hamilton and Earnst mention it as "a means of mobilising total library resources to meet the needs of the users without regard to the type of library involved and without classifying user as a public, school, academic or special library patron. The goal is to help all library users make more effective use of all library resources and services to education, work and recreational needs." DELNET (India) is the upcoming example under this type.

3.19 Evolution of Library and Information Networks

The Online Computer Library centre (OCLC) became de facto national network in the 1970s and international network in 1990s. It has grown from 54 libraries in 1971 to 26540 libraries in March 1998. It is stated "It has 30 million bibliographic records with 520 million holding locations in its union catalogue. The database increases at the rate of 400,000 records every month. The other important library networks include Research Libraries Information Network (RLIN) established in 1978 and Panhandle Library Access Network Inc. (PLAN) established in 1992 as multi-type library consortium. PLAN provides retrospective service, Internet access and creates databases of monographs and serials to mount on a CD-ROM tower.

Joint Academic Network (JANET, UK is a single national network of United Kingdom linking its universities and government research laboratories. JANET came into being in 1984 with merging of Science and Engineering Research Council Network and another research network. JANET-2 was started offering linkage to over 100 sites and connection to over half a million potential users. Smith states "the basic approach of JANET has been a 'breadth first' approach with a usable service to as many as possible and then enhance with additional services." In addition to JANET-2, a new broadband network as Super JANET was proposed in 1989. The Super JANET pilot project was conducted in 1993 for providing electronic document delivery to the libraries. It has a major programme known as eLib consisting of Electronic document delivery; Electronic journals; on demand
publishing; Training and awareness; Access to network resources; and Digitisation project.

3.20 Development of Library Networks in India

The process of automation and modernization of libraries and establishment of library networks has been very slow up to 1980s. However, Sinha Committee Report (1959), Ranganathan Committee Report to UGC (1965), Kothari Commission of Education (1964-66) etc. have emphasised the important role of libraries and advocated for cooperation among libraries. The creation of National Union Catalogue of serials by the Indian National Scientific Documentation Centre under the guidance of Dr. S.R. Ranganathan in the 1960s can be termed as the trendsetter of resource sharing activities in India, as it solved a major hurdle of the lack of location tools of resources to be shared.

The organised efforts in the direction of development of library networks have been started in the mid-1980s. In July 1984, the working group of the Planning Commission recommended to the Government about the need for modernisation of library services and informatics during the Seventh Five Year Plan of 1985-1990\(^2\).

The Committee for the National Policy on University Libraries, while mentioning the objectives for university library, recommends "Networking and resource sharing among university libraries should be practised by each institution towards utilisation of all resources and to introduce, if necessary, technological innovations like computer/word processing etc. to facilitate users getting prompt services…"

Serge has been noticed in the development of library networks in India from the year 1986. A number of metropolitan library networks were initiated mostly with the motivation and support provided by the National Information System for Science and Technology (NISSAT). The University Grants Commission (UGC) also established a nationwide library network - the Information and Library Network (INFLIBNET). A brief account about some of the important Indian networks is given herewith.
3.21 Developing Library Network (DELNET)

The erstwhile Delhi Library Network has been renamed as Developing Library Network during the year 2000 with the same acronym. DELNET is the first operational library network in India. It was started as a project in January 1988 and registered as a society in 1992. NISSAT arranged the feasibility study of DELNET and provided technical financial assistance for the network up to 1992. Presently the National Informatics Centre and India International Centre are promoting it.

DELNET has a membership of 200 libraries in 20 states in India and five countries outside India. Recently the All India Council for Technical Education (AICTE) has signed MOU with DELNET with an aim to modernisation and networking of libraries of AICTE approved technical institutions/University Department running technical courses. With this agreement, the membership will increase further. DELNET offers its services now to more than 255 institutions in 23 states in India and five countries outside India. These services include access to following databases

1. An online union catalogue of books available in its member libraries in Common Communication Format (CCF). It has 1,00,000 records with locations.
2. DELNET is now promoting database creation of books with its member libraries in MARC format. It has about 75,000 records with locations.
3. It has developed union list of current periodicals having details of 17,000 periodicals of all subjects with locations.
4. Has developed union catalogue of periodicals with full holding data and has 16,000 records.
5. Contains database of more than 2,00,000 periodical articles on a variety of subjects.
6. Union list of CD-ROM database has 1200 records with locations.
7. The database of the union list of video recording has 2300 records with locations.
8. Union list of sound recordings contain records of about 700 audiocassettes with locations.
9. A database of Urdu manuscripts has a list of 210 manuscripts available in Delhi Libraries with locations.

10. The database of theses and dissertations contains about 15,587 records with locations.

11. A database of Indian specialist is available online to member libraries with profiles of 2000 scholars.

12. The development Information Network for South Asia (DEVINSA) database has 20,000 records of periodical articles, books and unpublished material with abstracts.

13. 75,000 MARC records with locations are available in the database in English, Tamil and Telugu.


15. Document delivery service is provided to the member libraries on request.

16. DELNET provides soft wares to the member libraries for database creation either free or at reduced price.

It is to note, "DELNET has emerged as the first operational cooperative network incorporating all the disciplines - Science and technology, social sciences and humanities in its ambit." In view of this, it may be termed as first multi-type library network in Asian sub-continent.

3.22 Information and Library Network (INFLIBNET)

INFLIBNET was established as a network of university and college libraries in 1988. It began its operation in 1989 and has provided financial assistance to a large number of university libraries in India. "INFLIBNET will include participants from colleges, universities, research and development institutes, institutes of higher learning, information centres, institutes of national importance and document resource centres. All the disciplines such as science, technology and medicine, agriculture, fine arts, humanities, social sciences etc. are to be covered under INFLIBNET."
3.23 Objectives of INFLIBNET

The objectives of INFLIBNET are summarised as follows

- To evolve a national network, interconnecting various libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R and D institutions, etc. in the country for efficient sharing of information resources available with them and to improve capability of information handling and services.

- To provide reliable access to document collection of libraries by creating online union catalogue of monographs, serials and non-book materials (manuscripts, audiovisuals, computer media, etc.) in various libraries in India.

- To provide better access to worldwide bibliographic information sources with citations and abstracts, such as periodical articles, conference papers, preprints, technical reports, standards and specifications, patents, monographs, etc. through indigenously created databases and by establishing gateways for online accessing of international databases held by international information networks and centres.

- To provide document delivery service by establishing resource centres on libraries having the rich collection of documents.

- To optimise information resource utilisation through shared cataloguing, interlibrary loan service, catalogue production, collection development and avoiding duplication in acquisition to the extent possible.

- To implement computerisation of operations and services in the libraries and information centres of the country, following a uniform standard.

- To facilitate academic communication amongst scientists, engineers, researchers, social scientists, faculties and students, through electronic mail, Internet, bulletin board, file transfer, audio/video conferencing, etc.

- To enable the users dispersed, all over the country, irrespective of location and distance, to have access to information regarding books, monographs,
serials and non-book materials by locating the sources where from available and to obtain it through the facilities of new communication technologies.

- To create the database of projects, institutions and specialists for providing online information service.
- To encourage cooperation among libraries, documentation centres and information centres in the country, so that the resources can be pooled for the benefit of helping the weaker resource centres by stronger ones.
- To train and develop human resources in the field of computerised library operations and networking to successfully participate in the establishment and regular operation of INFLIBNET.
- To evolve standards and uniform guidelines in techniques, methods, procedures, and hardware and software services and so on and to promote adoption in actual practice by all the libraries, in order to facilitate pooling, sharing and exchanging resources and facilities towards optimization.

3.24 Achievements of INFLIBNET

- Creation of the union catalogue of serials database consisting of 30,000 records from more than 60 universities. It consists of more than 8000 unique serial titles.
- The development of the database of doctoral theses and dissertations submitted to various universities. More than 1.6 lakhs records are currently added to this database.
- As of now, over 7 lakhs records are available. More than 10 lakhs records received from the participating universities are under process.
- The creation of current serial database was started in 1998. It has now 10,000 unique titles having more than 26,000 holdings.
- A database of research projects undertaken by organisations and departments has over 3000 records. About 1000 records are under process.
- Creation of new database giving details of secondary (abstracting/indexing/serials and bibliographical databases in CD-ROM subscribed by more than 110 universities, has been taken up.
- The database of experts in different areas has over 6500 records and is growing steadily.
It has developed a software - namely SOUL - Software for University Libraries for providing to participating libraries for database creation.

Organising training to professional staff of participating libraries under manpower development programme.

Provided financial support of Rs.6.5 lakhs each to 123 university libraries for infrastructure, automation and networking. Another Rs.1.0 lakh has been made available to each of these libraries to develop core facilities.

Subscribing to OCLC's first search service providing support to member libraries through more than 80 bibliographic databases and a large number of full-text journals available at OCLC.

In addition to the aforesaid databases, the INFLIBNET has launched providing Bibliographic Information Service from the databases namely - Dissertation abstracts - humanities and social sciences, Econo-lift - economic literature, EMBASE Drugs and Pharmacology, ERIC - Education and research centre, Inside information, CD, LISA - Library & Information Science Abstracts, NUCSSI - National Union Catalogue of Scientific Serials, Psyclit - Psychological literature, SSCI - Social Science Citation Index and Ulrich's on disc - Abstracts. It has also started Contents of Periodicals in Science and Technology (COAST) service and document delivery service against subscription and payment basis respectively.

INFLIBNET Review Committee Report mentions that "the quality of database prepared at some of the university libraries is very poor and, therefore, needs improvement."

References:


