

BLOCK 4
RESOURCE SHARING
PROGRAMMES

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UNIT 12 RESOURCE SHARING: NEED AND OBJECTIVES

Structure

- 12.0 Objectives
- 12.1 Introduction
- 12.2 Resource Sharing
 - 12.2.1 Need
 - 12.2.2 Concept
 - 12.2.3 Historical Background
 - 12.2.4 Objectives
- 12.3 Resource Sharing and Library Networks
- 12.4 Library Networks: A Must
- 12.5 Resource Sharing: Operationalities
- 12.6 Library Consortia
- 12.7 Summary
- 12.8 Answers to Self Check Exercises
- 12.9 Keywords
- 12.10 References and Further Reading

12.0 OBJECTIVES

After reading this Unit, you will be able to:

- familiarise yourself with the concept of resource sharing;
- understand the need for resource sharing;
- comprehend the objectives of resource sharing; and
- become aware of the developments in resource sharing.

12.1 INTRODUCTION

Libraries are in a state of paradigm shift. There are changes taking place in their clientele, documents, and services. The nature of the clientele has changed, they are:

- demanding;
- specialist;
- IT savvy; and
- demanding timely information in specific formats.

The information and their carriers (documents) are also undergoing changes, they are:

- available in plenty;
- exploding, adding to the existing vast number; and
- available in different formats.

Libraries have changed from stand-alone entities to networks from collection-based to access-based; their services moving from document-based to information-based; and from physical existents to electronic and virtual libraries. It is here that the concept of resource sharing has come into picture. Libraries share their resources to serve their users in a cost-effective manner.

12.2 RESOURCE SHARING

Resource sharing is a concept quite often talked about in the literature of LIS. Literally, the term implies, using each other's resources. Edmonds defines it as 'the reciprocally beneficial sharing of resources, developed or pre-existing, by two or more bodies.' In the context of libraries, it refers to libraries sharing their resources, including the sources of information, staff expertise, infrastructure, and finance. The question arises, why should they do so? They are already so heavily burdened by requests from their own users, how will they cater to the needs of other libraries? The answer lies in knowing the situation in which they find themselves in, which is presented in the following paragraphs.

12.2.1 Need

The stock in trade of libraries, i.e. documents is available in plenty. Their rate of increase is such that it is termed explosion. They are available in variety of formats, at times being duplicated also. The channels of availability of these documents are also varied adding to the complexity of their acquisition. Prices of documents are on the increase. Results of a sample study of periodicals in USA show a price rise of 7.9% in 2002. As a majority of the publications are from USA, it implies increase in prices of documents. Rate of conversion of currency is also against libraries particularly for developing countries, e.g., India. It affects the capacity of libraries to buy. Increasing number of documents also demand physical space, which is a limitation for libraries.

Libraries exist for users; any change in their demands and requirements requires libraries to adapt. Users are now more demanding, expecting to be satisfied as early as possible. Libraries have to show their accountability; they have to satisfy the users in the best possible way. Customised services are the talk of the day. Staff has to be more interactive with the users knowing about their area of interest and their requirements to serve them in the best possible way. This requires that the professional staff does not have to attend to the routine chores, technical procedures.

Resource sharing enables libraries to function effectively and efficiently in view of the above situation. Sharing of resources may solve the problem as under:

- All libraries would not have to acquire all the documents that they require. They would share the documents thus overcoming the problem of increased prices and space for storing them.
- Libraries by sharing would have access to large number of documents thus satisfying the increasing demand for documents. Sharing would also allow them to use documents in different formats.
- It would also allow them to share the expertise of staff, thus saving costs as well as the time of the staff. They would now be freed from the routine technical procedures, as that would be done on a common basis between them.

Self Check Exercises

- 1) Define resource sharing. Describe its need.
- 2) Discuss the advantages of resource sharing.

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit

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12.2.2 Concept

Literally resource sharing means joint use of resources. Resource refers to the source which one uses to get some work done. Brewer defines it as ‘an umbrella term for a wide spectrum of cooperative processes and mechanisms’. Encyclopaedia of Library and Information Science defines resource as a person, thing or action to which one resorts to, when needed. To be more specific, we can say the resources in a library are staff, infrastructure, documents, and services. Sharing entails a relationship of reciprocity where the two parties offer their resources to each other for mutual benefit. Philip Sewell opines that resource sharing is an evolution of the concept existing earlier as Library Cooperation, the only difference being that library cooperation assumes two or more libraries existing and working jointly to achieve their goals. In resource sharing, it is presumed that there exist a group of users putting demand on libraries. Libraries on the other hand come together to pool their resources to satisfy these demands. Resources may be physical or intellectual, the former refer to the documents and infrastructure, whereas the latter refer to the human resources (expertise), which libraries can utilise to plan, implement or evaluate their services and routines. Library cooperation could be done in two ways: by working separately and sharing or by working together. The sharing could be of materials or information (reference or bibliographical). While working together, they collaborate to produce bibliographical tools, software, acquire materials, organise conferences and workshops for research and training of personnel.

Another difference between the two concepts is due to the developments in information technology. Library cooperation was more of a concept that could not be put in practice successfully due to: a) Geographical distance between the participating libraries and b) Transmission and duplication of documents not being possible. It made the cooperation among libraries difficult. It is only due to the developments in technology for production, storage, duplication, processing, and transmission technology that has enabled resource sharing. Desktop production, e-publishing, storage in magnetic and optical media and developments in telecommunications enabled easy duplication and transmission of documents for sharing among libraries. Data and telecommunication networks enabled library networks to materialise and this made possible sharing of all types of resources at any time, from anywhere across the globe.

Self Check Exercise

3) Differentiate between library cooperation and resource sharing.

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this Unit

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12.2.3 Historical Background

Library cooperation in modern times can be traced back to the efforts of Library of Congress when it started cooperative cataloguing, thereby enabling participating libraries to know about each other’s resources. It also helped the libraries to save on their resources and resulted in standardisation in practices. It led to a chain

reaction when libraries everywhere started preparing union catalogues. The system of sharing to satisfy personal needs existed in the society and it was no exception in libraries. Kaul quotes instances of library cooperation existing as early as 200 B.C. between Alexandria Library and Pergamum Library. He also cites Kraus mentioning cooperation between monastery libraries in the 13th century.

Starting with mutually satisfying each other's needs as and when required, library cooperation became more systematic with time. Institutions took initiative in this regard. Mention may be made of FID, IFLA, and UNESCO. In 1895 Paul Otlet and Henri La Fontaine from the forum of FID attempted to compile a world index to published information, and finally gave UDC as a tool for representing published information. FID had one of its objectives as improvements in the availability of information. IFLA has two programmes to its credit in this direction viz., Universal Bibliographic Control (UBC) and Universal Availability of Publications (UAP). UNISIST, the World Science Information System exists with the aim of providing processed information in science and technology to all.

The cooperation extended in other areas e.g., indexing and abstracting. Abstracting services started providing abstracts of literature international in scope. Chemical Abstracts, Biological Abstracts and Physics Abstracts are some examples, which are the result of cooperation among institutes. International coverage would not have been possible without cooperation. Further development in cooperation saw the establishment of Information Systems. INIS, AGRIS databases had inputs from national centers in different countries e.g., BARC and IARI in India. Another example of cooperation that took place was the formation of ADONIS. It was a Document Delivery System consisting of publishers- John Wiley, Elsevier, Pergamon, Blackwell Scientific, Academic Press and Springer Verlag. They provided index to articles appearing in 219 biomedical journals between 1987 and 1988 in CD- ROM. BLDSC was actively involved in this venture and developed the software for retrieving the information.

Self Check Exercise

4) Discuss the form of resource sharing taking place in information systems.

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit

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12.2.4 Objectives

Libraries have joined hands to cooperate and coordinate at various levels to form networks. These are formed at local, national and regional level. These networks exist to:

- **Maximise the resource base of libraries**

The primary objective of resource sharing is to maximise the resource base, i.e., collection, staff, infrastructure, as well as services of the participating libraries. They would be benefited by the resources of other libraries adding to their own resources.

- **Provide wider access to information**

We are living in the information age where information is a commodity needed by

one and all. We are highly dependent on information. It is a resource as important as energy. Information is required for decision making at different levels. In view of this scenario, one should not be deprived of information needed. Libraries have different document collection. They are strong in some areas and poor in others. They lack resources to excel in all areas. If libraries share amongst each other, they can overcome this limitation of poor document collection.

- **Rational acquisition**

Resource sharing results in a rational acquisition of documents. A library should only acquire those documents that are core to the area of its organisation. It can satisfy minor or auxiliary needs from other libraries with which it shares. Similarly it can satisfy the minor needs of other libraries. It would result in a rationalised acquisition of documents.

- **Save resources**

Libraries share their resources to save and use them optimally. Cooperative acquisition enables them to save on money spent on documents. Cooperative cataloguing and classification enables them to save on staff salaries, efforts, and time spent on technical processing.

- **Enable uniform practices in routines**

A central agency can be entrusted the task of cataloguing and classification, which can be followed by others which results in standardization. Uniform practices are helpful to users as well as staff. It is a result of sharing and a requirement too.

- **Acquisition**

Rationalisation of acquisition is one the major functions of library networks. Libraries can come together to identify duplication of resources thereby avoiding wastage. Funds could be diverted for resources, which are found lacking in a particular geographical area. It would result in better allocation of funds and widespread availability of resources. Core collections could be built up for all libraries. Documents, which are rare or costly, could be acquired strategically in different locations to enable maximum use.

Self Check Exercise

5) Enumerate the objectives of resource sharing.

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit

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12.3 RESOURCE SHARING AND LIBRARY NETWORKS

Let us refer back to what we said earlier that resource sharing evolved from library cooperation. And that library cooperation was not effective due to the geographical distances between libraries and limitations of duplicating and transmitting documents between the cooperating libraries. Also that resource sharing could be made possible due to the developments in IT. The result is that we have library networks. Libraries cannot stand in isolation today. This was a well-accepted fact and thus there were

concerted efforts on their part to cooperate. Their efforts were made productive by developments in computer and telecommunication technologies. Libraries could be connected locally as well as globally into library networks. Computers made possible electronic documents, and telecommunications made possible their transfer and transmittance electronically thus, overcoming the barriers of geographical distance and time.

Library network has been defined as a “group of individuals or organizations that are interconnected to form a system to accomplish some specified goal. The linkage must include a communication mechanism, and many networks exist for the express purpose of facilitating certain types of communication among members.” Another definition of a network describes it in terms of its characteristics, viz.

- A network’s function is to marshal resources from its environment to accomplish results beyond the ability of any one of its members.
- A network develops an organizational design and structure that allows it to establish an identifiable domain and exercise appropriate influence over its members. It is based on communications technology.

There is a stress on ‘Collaboration’ in the above definitions. Networks are IT driven, with a well defined administrative structure, and get goals.

12.4 LIBRARY NETWORKS: A MUST

The developments in information technology have made it possible for libraries to network. But today library networks are must because of:

- **Increasing amount of information is in electronic form**

Information is stored in print, film, magnetic and optical storage media. The information produced in the year 2002 was distributed in these various media as under:

<i>Media</i>	<i>Percentage of information stored</i>
Hard disks	92%
Films	7%
Paper	0.01%
Optical Media	0.002%

- **Bibliographic access to information is also in electronic form**

Access to information is provided through databases produced online and offline which require libraries to be networked.

- **Internet**

The existence of Internet is a major factor that has changed the way information is produced, published, stored, transmitted and used. This requires libraries to be networked for accessing their information.

- **Timely access to information**

It is difficult for an individual to lay hands on his specific information in the large mass of information available. Computer helps to process and easily access to the required information. Networking is essential to access when the information is available at a distance.

Networking of libraries has increased the feasibility of resource sharing by overcoming the barriers of distance and time involved in accessing information.

6) Discuss the need for library networking.

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

12.5 RESOURCE SHARING: OPERATIONALITIES

We have been discussing the conceptual details of resource sharing. Putting these into practice is a bit difficult, reasons being that there are so many libraries involved. We have to formulate policies, procedures and routines for a library. These have to be objective and unbiased for the library to function effectively. It is the same for a number of libraries. It is more difficult to do so in case of a number of libraries because of the:

- Number of libraries and users involved; and
- Variety of libraries and users involved.

The number and variety of libraries involved makes it difficult because policies have to be framed keeping in view the nature of documents for acquisition. The nature and variety of users make the framing and implementing the policy difficult.

The participating libraries should objectively frame policies in regard to:

- **Documents to be shared**

It is not required nor feasible to share all types of documents. Decision has to be taken in this regard taking in consideration the use and cost of the same. Libraries would like to share only costly and less used documents. Those documents that are in heavy demands in their libraries cannot be spared for other libraries. The requirements of their own users are primary.

- **Terms and conditions for loan and return**

Documents are issued to users for a time period that enables them to use effectively. A period of loan is decided keeping this in view. It also depends on the type, cost, use and the number of copies of the document available. Similarly, these have to be formulated for sharing among a group of libraries. The period of loan in such a case cannot be the same for users of the library. The participating libraries can make duplicates of the same for use within copyright rules.

- **Deterrents and punitive measures to ensure safe and timely return of documents**

The biggest problem for a library in circulation service is to ensure safe and timely return of documents to keep them in circulation. It is difficult, as the user does not return the documents in time. It is all the more difficult when there are number of libraries and hence users. It is important the participating libraries assume responsibility for their users and ensure safe and timely return of documents. They know their users better and can act accordingly to ensure the same.

- **Union catalogue production and maintenance**

The use of the combined collection of the participating libraries depends upon their knowing the collection. The resources of the libraries should be made known to all

through union catalogues. The responsibility for designing and maintaining the same should be entrusted to one of the participating libraries. The data of each library should be according to uniform standards and be in machine-readable form to enable users to search from their own libraries electronically.

● Cooperative cataloguing

Cooperative cataloguing is also expected in resource sharing. It needs to be decided as to who will be doing this work. It depends on the resources of the library. A library that has the staff expertise to do this work should be entrusted this responsibility.

OPAC The details of the documents along with their status should be made known to the users through OPAC. It is more important than for users of individual library because of the number of users involved as well as the distance between the participating libraries.

Self Check Exercise

- 7) What are the factors to be considered for deciding the kind of documents to be shared?

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit

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12.6 LIBRARY CONSORTIA

Resource sharing as a concept has evolved into the concept of library consortia. The concept has come out of the increasing costs of publications, particularly periodicals and the reducing capacity of libraries to acquire. Another factor is the availability of electronic publications and databases. Publishers have also realised this fact and subsequent loss to their business. They have come into agreement with libraries to form consortia. Libraries come together and identify a coordinating agency that coordinates the planning and implementation of the consortia including the negotiations with the publishers. The negotiations include the identification of the databases to be acquired, access facilities depending upon the number of libraries and users accessing the databases, including the back- up of the databases. The coordinating agency decides the infrastructural facilities required for access to the databases.

Indian National Digital Library of Engineering, Science, and Technology (INDEST), is a consortium set up and funded by the Ministry of Human Resource Development (MHRD) in India. It has its headquarters at IIT Delhi. It provides access to around 5,000 journals providing an advantage in price of to order of 80% to participating libraries while accessing e-resources. The consortium is also a member of International Coalition of Library Consortia (ICOLC). In unit 14, the concept of consortia has been discussed in greater detail.

12.7 SUMMARY

This Unit provides an introduction to the concept of resource sharing. It presents an overview of the need and objectives of resource sharing. The historical discussion

of the topic would help to gain an understanding of the evolution of resource sharing from library cooperation to consortia. Library networks have been a boon for libraries in giving a practical shape to the concept of resource sharing. They have solved the biggest problem of transfer of documents across distances in minimum time. The learner is introduced to library networks, their need and purpose. Finally the latest development in the area i.e., library consortia have been introduced.

12.8 ANSWERS TO SELF CHECK EXERCISES

- 1) Resource sharing refers to mutual sharing of each other's resources by libraries to serve users' needs most effectively. Resource sharing is needed because: 1) Increasing number of documents available for libraries to acquire which is on the increase. 2) Their increasing cost. 3) Increasing demands of users. 4) Decreasing funds available to libraries. 5) More staff interaction needed with users to provide effective services. Resource sharing would enable libraries to overcome these problems enumerated above.
- 2) Advantages of resource sharing: 1) Libraries would be able to acquire documents in greater number that are used heavily by their users and share others with other libraries. 2) they would have access to greater number of documents. 3) sharing of expertise of staff would enable them to save on staff time and thus freeing them to interact more with the users to provide effective services.
- 3) Library cooperation involves two or more libraries coming together to share their resources to satisfy their mutual needs. Resource sharing is an evolution of the concept in view of the changing needs and increasing demands made on the library by the user. It also assumes application of technology.
- 4) Information systems also function by sharing resources. The resources shared are information. The information pertains to the literature published in different countries in case of international information systems. It is the bibliographic information relating to the literature published.
- 5) a) Maximising the resource base of libraries.
b) Provide democratic and wider access to information.
c) Rational Acquisition.
d) Save Resources.
e) Enable uniform practices in routines.
f) Acquisition.
- 6) a) Increasing amount of information in electronic form.
b) Bibliographic access also in electronic form.
c) Advent of Internet.
d) Timely access to information.
- 7) The factors to be considered by libraries while sharing documents are cost and use made of documents. Libraries would share only costly and less used documents. Frequently used documents should be available in the library for their own users and should not be loaned to other libraries. Libraries themselves can acquire less costly documents and they need not be dependent on other libraries for them.

12.9 KEYWORDS

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|----------------------------|---|---|
| Library Cooperation | : | Two or more libraries working together to achieve their goals providing effective service to their users. |
| Resource Sharing | : | Two or more libraries/information systems sharing their resources to satisfy increased |

Library Networks

pressure of user demands. The resources may be physical or intellectual.

- : Two or more libraries connected together through telecommunication links for effective sharing of resources overcoming the barriers of geographical distances.

Library Consortia

- : Libraries and publishers coming together for mutual benefit and enabling collaborative acquisition of e-documents to a group of libraries.

12.10 REFERENCES AND FURTHER READINGS

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[http:// www.informationaccess.org/best.pdf](http://www.informationaccess.org/best.pdf)

UNIT 13 INFLIBNET: INFORMATION AND LIBRARY NETWORK

Structure

- 13.0 Objectives
- 13.1 Introduction
- 13.2 INFLIBNET Programme
 - 13.2.1 INFLIBNET for Resource Sharing
 - 13.2.2 Objectives of INFLIBNET
 - 13.2.3 Functions of INFLIBNET
 - 13.2.4 Activities of INFLIBNET
 - 13.2.5 Departments of INFLIBNET
 - 13.2.6 INFLIBNET Membership
 - 13.2.7 INFLIBNET Publications
- 13.3 INFLIBNET Services
 - 13.3.1 Document Delivery Service
 - 13.3.2 Bibliographic Information Services (Database Service)
 - 13.3.3 Catalogue-based Services
 - 13.3.4 Collection Development
 - 13.3.5 Communication/Information-based Services
- 13.4 INFLIBNET Resources
 - 13.4.1 University Catalogue
 - 13.4.2 R&D Library Catalogue
 - 13.4.3 National Library Catalogue
 - 13.4.4 National Union Catalogue
 - 13.4.5 Indigenous Databases
- 13.5 Computerised Access to INFLIBNET Resources
- 13.6 Implications of INFLIBNET for Resource Sharing
- 13.7 Future Strategy of INFLIBNET
- 13.8 UGC-INFONET
- 13.9 Summary
- 13.10 Answers to Self Check Exercises
- 13.11 Keywords
- 13.12 References and Further Reading

13.0 OBJECTIVES

After reading this Unit, you will be able to:

- get a clear understanding of Information and Library Network (INFLIBNET), which is the national network centre of India;
- recognise the need for and value of INFLIBNET for library resource sharing;
- become familiar with the efforts made for initiating action towards making individual library resources accessible at national level;
- identify various information resources and delineate the issues involved in bringing in uniformity and standardisation among the created databases;
- become aware of different services, resources and projects of INFLIBNET;

- get an insight into the issues involved in implications of INFLIBNET for library resource sharing;
- perceive INFLIBNET as an economic tool to improve status and services of academic library system in India; and
- become aware of the UGC-INFONET Programme based on consortia approach.

13.1 INTRODUCTION

This Unit deals with the Information and Library Network (INFLIBNET) programme of the University Grants Commission of India. It is a major national programme of UGC started in the year 1991. INFLIBNET Center is an autonomous Inter University Center of UGC, which became independent in the year 1996. It is situated at Gujarat University Campus, Ahmedabad. The Chairman of UGC set up a committee in April 1988 to study the problems emerging due to accelerating prices of information services, sources, products, shrinking budgets of the libraries and scarcity of space and also to suggest measures to establish a system to share the available resources in the country towards optimum utilisation. History of library networks in India can be traced back to the year 1958 when at the instance of Pt. J.L.Nehru, the Scientific Policy Resolution was adopted emphasizing the development of scientific temper among people. As a result many committees and commissions came up with many recommendations stressing cooperation among libraries at local, regional and national level. Since 1980s, many library networks viz, ADINET, CALIBNET, BONET, DELNET, MALIBNET, MYLIBNET, etc. have appeared on the scene. At the national level UGC initiated INFLIBNET.

The INFLIBNET aims at linking all universities, colleges, R&D laboratories, institutes of national importance, etc., in the country through their libraries by computer networks. The objective is to make all the available bibliographic and non-bibliographic information resources in the country accessible and usable to any user from any place in the country. The INFLIBNET is a cooperative venture where all its participants join hands to derive mutual benefit of resource sharing. It tries to avoid unnecessary duplication of costly journals, indexing and abstracting periodicals and other documents.

The objectives can be achieved by the use of computer, communication and modern network technologies. INFLIBNET emphasises the use of modern technologies, and suggests where and how these can be used with its specifications and guidelines. It would be a major national programme towards modernisation of libraries in the country especially college and university libraries. It aims to establish a mechanism for information transfer and access to scholarship and academic world. It would be an endeavour in resource development and its utilisation with a view to organise library services at macro level as well as affordable costs for maximum benefit.

At present INFLIBNET is basically engaged in modernising university libraries in India. Its main endeavour is to connect university libraries and information centres through high-speed data network for the maximum utilisation of information resources.

The Unit discusses the objectives and services of INFLIBNET programme and identifies the benefits and implications of it on resource sharing.

13.2 INFLIBNET PROGRAMME

Conceptualisation of the INFLIBNET project and the steps taken to frame a proposal for its establishment and development are largely due to deep personal interest of Prof. Yash Pal, the then Chairman UGC. It has been his firm conviction that a library and information network of the nature and magnitude of INFLIBNET

is very much needed in the country on the lines of library and information services elsewhere in the industrialised world.

The INFLIBNET blueprint of programme has been projected in detail in a document entitled "Development of an Information and Library Network: Report of the Inter Agency Working Group, UGC, 1988". This project report is popularly known as "*Blue Document*".

13.2.1 INFLIBNET for Resource Sharing

INFLIBNET is designed to improve library resource sharing by avoiding duplication in acquisition of library materials to the extent possible. Resource sharing is the backbone activity of INFLIBNET. The functions and services of INFLIBNET are focussed on 'Resource Sharing' and promotion of scholarly communication among the academics and researchers in India. Hence, INFLIBNET promotes creation of conducive environment for library resource sharing through activities such as identifying existing information sources, creating bibliographic databases, updating and maintaining the databases, making them accessible by providing interconnection and communication facilities, etc.

The implementation of library resource sharing is possible only when two or more libraries are willing to share their resources for mutual benefit.

Self Check Exercise

1) What is the INFLIBNET Project?

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

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13.2.2 Objectives of INFLIBNET

It is intended to provide a framework to the existing and planned efforts in networking of libraries with particular emphasis on interconnecting university and academic libraries. The main objectives of INFLIBNET are to:

- evolve a national network, interconnecting various libraries and information centres in the country and to improve capability in information handling and service;
- provide reliable access to document collection of libraries by creating online union catalogue of monographs, serials, theses and non-book materials, etc.;
- provide better access to bibliographic and factual numeric databases with particular emphasis on those databases created indigenously by the Sectoral Information Centres of NISSAT and UGC Information Centres;
- establish gateways for online accessing of information;
- provide document delivery service by enriching information sources of libraries having rich collection in specific subject areas;
- optimise information resource utilisation through development of conducive environment for resource sharing;
- implement computerisation of operations and services in the libraries and information centres of the country, following a uniform standard;
- facilitate scientific communication amongst scientists, engineers, researchers,

social scientists, academics, faculties and students through electronic mail, bulletin board, file transfer, computer/audio/video conferencing, etc;

- enable the users disbursed all over the country, irrespective of location and distance, to have access to information regarding books, monographs, serials, theses and non-book materials by locating the sources wherefrom available, and to obtain the same through the facilities of new communication technologies and union catalogue of documents;
- create database of projects, institutions and specialists for providing online information service;
- encourage co-operation among libraries, documentation centres and information centres in the country, so that the resources can be pooled for the benefit of weaker resource centres;
- develop suitable professional manpower of appropriate quality to establish, manage and sustain the INFLIBNET; and
- evolve standards and uniform guidelines in techniques, methods, procedures, hardwares and softwares, services and so on, and promote adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchanging resources.

According to the Memorandum of Association, the major objectives of INFLIBNET are to:

- “promote and establish communication facilities to improve capability in information transfer and access, that provide support to scholarship, learning, research and academic pursuit through cooperation and involvement of agencies concerned; and
- establish INFLIBNET a computer communication network for linking libraries and information centres in deemed to be universities, in colleges, universities, UGC information centres, institutions of national importance and R&D institutions, etc. to avoid duplication of efforts.”

(Source: <http://meb.inflibnet.ac.in>)

Self Check Exercise

- 2) Explain how the objectives of INFLIBNET emphasise resource sharing.

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

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13.2.3 Functions of INFLIBNET

In order to translate the objectives into practice the following functions will be performed by the INFLIBNET:

Uniform Standard and Guidelines

According to a uniform standard, the implementation of the computerisation of libraries/ information centres in the country and interlinking the university libraries/ information centres through a national network.

This network will evolve uniform guidelines for computerisation and put it in actual practice by all the libraries/information centers for better sharing and exchange of information and utilisation of resources.

- INFLIBNET will create online union catalogues of information resources of various libraries in India to provide access to document collections to the users of all the libraries.
- It will also provide access to bibliographical information sources with citations and abstracts through databases created by Sectoral Information Centres of NISSAT and Information Centers of UGC.
- It will develop methods for archiving of valuable information sources in Indian languages.
- It will promote shared cataloguing, ILL, catalogue production, etc. to avoid duplication of efforts and also to enhance co-operation among libraries/information centers, documentation centers in the country.
- It will also create databases of projects, specialists and institutions for giving effective information services.
- It will facilitate e-mail, ftp, computer and A/V conferencing for academic communication among the scientists in the country.
- It will give training to professionals in the field of computerisation.
- INFLIBNET Center will collaborate with other national and international organisations in the area relevant to its objectives and promote research and development.
- It will provide consultancy and information services to generate revenue.

13.2.4 Activities of INFLIBNET

INFLIBNET as it is called a gateway to India's academic and research community is working towards modernising university libraries in India and also interlinking the libraries as well as information centres with state of art technologies for the maximum utilisation of information resources. One of the major objectives of INFLIBNET is to promote communication among academics and researchers in India. To fulfil the objectives the INFLIBNET has carried out certain activities. Some of the activities have been categorised in the following sub sections.

a) Software Development

INFLIBNET has developed SOUL (SOftware for University Libraries) software to facilitate automation of housekeeping operations of participating libraries. This software works on the client server mode in the windows environment using MS SQL server as back end tool to store and retrieve data. It supports international standards such as MARC-21, CCF, AACR-2R, ISO-2709, etc. Till date it has completed 450 installations in libraries. This software has six modules namely, Acquisition, Catalogue, Circulation, OPAC, Serials Control and Administration. The network feature of the software allows multiple libraries of university to work together and also to access to the distributed databases mounted at INFLIBNET using VSAT network. INFLIBNET has established five service centres for SOUL in the States at Mumbai, Patiala, Ahmedabad, Hyderabad and Bangalore.

The Centre has also developed some utility software, which can be accessed by the universities on request. The utility softwares provide for searching the data from union databases, (OPAC), catalogue card generation, duplication checking of records, customised software for books, theses, serials and conversion of data from Dbase, FoxPro, and text file to ISO – 2709 format.

b) Networking of University Libraries

University libraries which are receiving funds under this programme can subscribe to networks like: ERNET, VSNL, NICNET and other ISPs. The centre has planned to set up WAN named 'UGCNET'. Under this, more than 170 Universities and

academic institutions may be linked. The centre has advised all the funded universities to set up LAN in their Campuses in which all the departments will be connected and later LAN will be linked to WAN.

c) Development of Databases

INFLIBNET Centre has developed Union Databases of Books, Theses, Serial Holdings, Current Serials, Experts, Research Projects, Secondary Serials / CD – ROMS and DDC serials.

● Books Database

It is a bibliographic database. It contains the bibliographic information of books, monographs, reference and textbooks, conference proceedings, etc. provided by the participating libraries under the INFLIBNET Programme. This database has more than 30 lakhs of records from 100 universities and it is constantly growing. It also has 20 lakh unique records processed from 70 universities and the remaining are under process. It is accessible online and the participating libraries can search the information by title, author, publisher, subject descriptor, ISBN no. and Boolean operators.

● Serials Database

Serials database can be accessed by the user through the links namely, serial holdings, secondary serials, current serials, current serials for Document Delivery Centres and Integrated Search of Serials Databases (New System).

The users can search union database of serial and its various links by title, ISSN, frequency, publisher, place of publisher, subject descriptor, by the name of the library and Boolean operators. The union database of serial holdings contains bibliographical information of serials of more than 96 universities/institutions having approximately 47,591 holdings of various universities. It covers 13,751 titles that include names of the serials, learned journals; periodicals classified under serial collection of the university/institution libraries.

● Secondary Serials Database

This database service started in the year 1999. This database holds secondary serial collection of more than 115 university/institution libraries, with 462 titles, which includes floppy disks, CD-ROM also.

● Current Serials Database

This database contains the collection of 11,892 current serials of more than 197 university/institution libraries. It lists the current serials titles along with the name of the contributing library.

● Theses Database

Theses database contains records of doctoral theses submitted to Indian Universities. There are presently more than 1.4 lakh records. Abstracts of theses may be added in the future.

d) Automation of Libraries

For the purpose of enhancing resource sharing through networking, all the participating libraries should be computerised/ automated. INFLIBNET Centre is providing support to university libraries for automation. Till 1999-2000, 142 university libraries had been given the grant for automation and it was decided to give grant to rest of the libraries by end of 9th Five Year Plan. The funding libraries were supposed to sign MOU with INFLIBNET. SOUL software has been installed in 450 libraries for automation purpose.

e) Human Resources Development (HRD) Training

For the proper implementation of INFLIBNET programmes the skills of the university libraries staff are to be enhanced. To fulfil this purpose INFLIBNET Centre undertakes various training programmes. One month training programme is meant for operational library staff. Basically it is training for application of computers to library and information services. Under 'on the site' training programme the staff of INFLIBNET give training for initiating automation process. INFLIBNET has conducted so far 20 training courses of 4 weeks duration and 7 workshops of one-week duration. To solve the problem in using ILMS (Integrated Library Management Software) INFLIBNET gives ILMS Training for a week to the users. For SOUL software, which has been installed in 450 libraries, the Centre gives one week training to the library staff.

INFLIBNET Centre also conducts conferences and workshops on the themes related to library automation.

Caliber stands for Convention on Automation of Libraries in Education and Research Institutions. This conference is being conducted by the Centre annually. The Centre has already conducted 10 such conferences so far. Apart from this the Center is also conducting two day programme called "PLANNER" which is specially related to the issues and problems of North East States. This programme started in the year 2003.

To train the college librarians of different regions with emphasis on regional languages the centre conducts IRTPLA: INFLIBNET Regional Training Programme on Library Automation. The Centre has conducted 35 IRTPLA and trained 800 library professionals.

13.2.5 Departments of INFLIBNET

The INFLIBNET Centre has been maintaining departments to execute its functions, namely, database development and maintenance, database research and development, e-education, HRD and consultancy, informatics, network, testing and quality control, software and R & D, web development. We will explain the activities and future action plans of the departments in the following sub sections:

i) Database Development and Maintenance Department

This department is responsible for giving access to union catalogue of participating libraries and world wide bibliographical information. It is also maintaining consistency and quality of databases development by participating libraries. One of its main responsibilities is to evolve standards, uniform guidelines, methods and procedures for data capturing and also for hardware and software.

It has developed union databases for Books, Theses, Serial Holdings (information about serial holdings of different university libraries), Current Serials, DDC Serials (Serials of document delivery centres), Experts, Research Projects, and NISSAT Project.

It is continuously maintaining, and updating these databases. This department is working in the direction of developing databases of national infrastructure. These include databases for patents, manuscripts, technical reports and non-book materials.

ii) Database Research and Development Department

This group looks after the problems related to development, maintenance and updating of databases. It also helps the participating libraries in the development of databases. Its major activities include the development of utilities for database creation, conversion and maintenance in formats like CCF and MARC 21, retrieval software for CD-ROM based bibliographic databases, utility tools for retrospective

conversion of union catalogues and software tools for multilingual databases of union catalogue. The future activities of this department include R & D of retrieval software for multilingual, multimedia and full text databases and distribution of databases through the medium of CD-ROM.

iii) E-Education Department

This department was established in August 2001 with the objective of R & D activities in the area of e-learning and imparting web-based training to professionals. It is basically concerned with latest technological changes in the area of computer technology. Some of its main activities include setting up of e-learning lab at INFLIBNET Centre and development of retrieval software, planning, implementing and reviewing of e-learning policies, and e-learning infrastructure for the set up. With the collaboration of HRD department of this Centre, this department will launch various e-learning training courses and develop various tools and technologies to deliver e-learning courses. This department will also provide consultancy service to those R&D Institutions/Universities/Colleges who wish to collaborate with INFLIBNET Center. It will also explore techniques to implement Digital Library and Knowledge Management.

iv) HRD and Consultancy Department

This department is conducting various training programmes, sometimes collaborating with national agencies like ICSSR/NASSDOC, All India Radio, etc. INFLIBNET Centre is also conducting various training programmes of short and long duration. National Seminar CALIBER is a regular feature of this group. The basic objective of this group is to prepare libraries for automation and professionals to help in achieving automation in libraries.

v) Informatics Department

The main objective of the INFLIBNET Centre is to provide information services to academic and research community in the country. For this the Centre has subscribed to some important databases and e-journals to cater to the needs of academic community. This centre catalogues the Internet resources and provides online access to e-resources. The future plan of this centre is to provide full text access to journal articles. This Centre provides CD-ROM based bibliographical information services, content page service STN International, Database Service, document delivery service. It promotes SOUL, organises Internet resources. Through consortium approach it enhances resource sharing.

vi) Network Testing and Quality Centre

This department promotes R&D activities in the area of networking, testing and quality control. The main objective of this department is to set up, maintain and update campus wide network and coordinate with UGC-Network. For quality network and management network it conducts training programmes, workshops, etc. in the related area.

vii) Software and R&D Department

This department has developed SOUL software for library automation. It supports other departments of the INFLIBNET Centre by providing software help and technologies support. One of the major activities of this department is to maintain, manage, and update the union databases. Till date Centre has eight union databases. The department is planning to develop fully web based library management system, incorporation of multilingual interface and data conversion utilities in SOUL and development of MARC-21 based database creation tools.

viii) Web Development

On visiting the INFLIBNET Centre's website we find there is vast amount of information available. Web development department is working towards providing gateway in the field of research and academic activities.

The department is mainly responsible for centre's website design, maintenance and updating. It also keeps tracking reports of users of this website. It is improving the centre's infrastructure with the help of latest technologies. It is basically responsible for installation of SOUL in the participating libraries for automation. It also provides hardware and software support. This department is working towards setting up of Intranet for the management of internal information of INFLIBNET Centre.

13.2.6 INFLIBNET Membership

INFLIBNET Centre provides two types of membership viz, primary and associate membership. Universities, which receive grant from the UGC, become primary members. Presently universities are the primary members of the INFLIBNET Programme. After signing the MOU the members automatically receive the benefits and become aware of their responsibilities. The other category is of associate membership. In this category the libraries which do not receive UGC grant but are public funded academic and research organisations, government departments, non profit making organisations, can become associate members of INFLIBNET only after signing the MOU and the payment of fees, etc.

13.2.7 INFLIBNET Publications

INFLIBNET Centre brings out the following publications:

- Caliber Proceedings.
- Union Catalogue of Secondary Serials.
(This includes bibliographic databases on CD-ROM)
- Guidelines for Data Capturing: A User Manual.
- INFLIBNET Newsletter (published since 1995).
- Union Catalogue of Current Serials of Document Delivery Centres.
- Annual Reports.

Caliber Proceedings and Newsletters can be accessed on line full text. The Centre also publishes promotional material like information brochures on INFLIBNET, SOUL, INFONET, etc.

13.3 INFLIBNET SERVICES

The benefits that can accrue from a library network get maximised as the number of services on the network increases. From cost-benefit point of view, a multiple function/service network is more justified than a single function/service network. Further, the cost will decline progressively as the number of participants in the network increases.

INFLIBNET is a multiple function/service network. It provides the following services:

13.3.1 Document Delivery Service

Document Delivery Service (DDS) is initiated by INFLIBNET to overcome the problem of resource crunch due to ever-increasing costs of information resources and shrinking budgets of libraries. In this service the resources of six libraries namely BHU, University of Hyderabad, IIS, JNU, Punjab University and TISS will be utilised. These libraries will serve as Document Delivery Centres (DDC) and provide this service at a nominal basis of no profit- no loss basis. Any one who is associated with learned institutions can avail this service but priority will be given to the requests from INFLIBNET Member Institutions. The requests can be made for journal articles, conference proceedings or any other material required for academic and research purposes. The requests can be made through e-mail, fax,

telephone, post or in person and the delivery can be made by e-mail, fax, speed post, normal post or even by hand.

INFLIBNET has collaborated with the document delivery centres and developed a database namely, Union Database of Current Serials of DDC. Through this database all the users can come to know the availability of material in the DDC. The database is available on line and also in the printed form. If the requested item is not available in a particular DDC then efforts will be made by the concerned DDC to procure and supply the material.

13.3.2 Bibliographic Information Service (Database Service)

INFLIBNET is providing bibliographical information service through online and offline databases, CD-ROM databases, COPSAT and OCLC's First Search.

● Online Access to Databases

INFLIBNET Centre has developed eight databases; out of these five databases are bibliographic in nature. They are Serials Holdings, Current Serials, Secondary Serials Catalogue, Theses and Books. The remaining databases viz., Research Project, Experts and University Information System come under non-bibliographic category. Bibliographic databases are a tool for resource sharing. In these databases the participating university libraries contribute the data. All databases are accessible online.

● Sewak Software (Offline)

INFLIBNET has also developed SEWAK software tool which receives queries from users through e-mail, and sends back replies. Sewak searches the databases on behalf of the user and thereby reduces the time as well as money of the user.

● CD-ROM Databases

In order to provide bibliographic information services to the users INFLIBNET Centre has a number of CD-ROM based bibliographic databases covering different subjects. This service is being provided at the national level to the researchers and academics free of cost. The users can send their requests and the search output is provided in a floppy or through e-mail. INFLIBNET Centre has subscribed to a number of CD-ROM database some of them are: Current Contents on Diskette: Social and Behavioural Sciences; Dissertation Abstract International; Humanities and Social Sciences; Econlit: Economic Literature...,etc. For the complete list the students are advised to visit the website <http://inflibnet.ac.in/services/cdromDb.jsp>

● COPSAT

In the field of S&T, INFLIBNET Centre is providing Current Awareness Service in the form of COPSAT: Contents of Periodicals in Science and Technology. This service is being provided in collaboration with National Centre for Science Information (NCSI), Indian Institute of Science, Bangalore.

The service covers 4000 top ranking journals in the field of S & T. Besides contents COPSAT provides author abstracts also. The user/library/institution can select 40 journals out of 4000 and subscribe as one set. The cost of one set is at an affordable price.

● OCLC First Search

OCLC First Search service is highly used by the users community. It is on line bibliographic service. It covers over 85 databases and links to www. These databases are from major fields. This service offers online, full text, document delivery, library holdings and ILL (Inter-library Loan) service.

INFLIBNET Centre is subscribing to OCLC First Search Service and helping the universities covered under the programme. The user will send the request to INFLIBNET and it will access the database, conduct the search, download records, and send the results to the user. This service is restricted to bibliographic information only. The Centre has launched the service on experimental basis.

● Databases on CD-ROMs

The INFLIBNET Centre has developed eight databases on Serial Holdings, Current Serials, Secondary Serials Catalogue, Theses, Books, Experts, Projects and University Information System. These databases are accessible online and updated periodically. Besides this the Centre also accesses bibliographic CD-ROM databases on different subject areas. The users can send their requests through the librarian and the search output will be delivered through e-mail or on floppy. This service is given free of cost.

13.3.3 Catalogue-based Services

This service includes:

- shared cataloguing of monographs, serials and non-book materials;
- union catalogue of books, serials and non-book materials;
- online catalogue (OPAC) access for shared cataloguing and location identification;
- catalogue production in card, book, magnetic tape/floppy, optical (CD-ROM), and COM form; and
- book processing and preparation.

Shared Resources: The objective of shared cataloguing is to share cataloguing of publications already done elsewhere by any other participant library of INFLIBNET. The service will enable a library to use the catalogue information available in a major, near by university library or regional centre for cataloguing of new publications added. This means, a document is catalogued only once at the time of its first input into the network. The efforts and experiences of cataloguing are shared.

Union Catalogue: The objective of Union Catalogue service is to provide a Union Catalogue of books, monographs, serials and non-book materials available in different libraries in the country. The service provides information regarding the specific library, or libraries, where copies of a required document are available. The Union Catalogues are planned to keep up-to-date. They are to provide information of the location of document with geographical proximity. For example, if a scientist from Mysore is searching Union Catalogue, he is obviously interested to know the availability, first in the libraries in and around Mysore. The service of Union Catalogues will help him in procuring a photocopy or the document on inter-library loan.

OPAC: The Online Public Access Catalogue service is planned to provide online access to catalogue information to users at individual library level or at university or at higher level of regional catalogue.

The catalogue production service provides a facility to individual libraries to produce their library catalogues in the form of cards, books, magnetic tapes, floppy/CD-ROM, etc.

Book Processing: The book processing services include preparation of spine labels, book cards, list of additions, etc. using the catalogues of INFLIBNET at different levels.

13.3.4 Collection Development

Acquisition and assistance in selection and procurement of information resources.

13.3.5 Communication/Information-based Services

The Centre provides academic communication through electronic mail, bulletin board, and file transfer, computer/audio/video conferencing.

Under this category we will be discussing types of facilities provided by INFLIBNET Centre. Firstly, the experts can register themselves online and those who are already registered can also update their information online. This information is required for Expert database of the INFLIBNET Centre. This database comprises academic profile of senior faculty members of Indian Universities. Presently this database has 3500 records. The number of records is increasing very fast. It is updated continuously. The other facility given by the Centre is to register projects online. The information on ongoing and completed projects can be viewed online. It has over 9000 records and more than 15,000 records are under process. Research Project database holds information about the research projects funded by various agencies viz., UGC, ICAR, ICMR, DST and DBT, etc.

Expert Database in S&T (EDST) holds profiles of scientists, researchers, and other faculty members who are engaged in research and teaching in India.

This Centre has also posted information about Indian Universities/Institutions and National Information Centres and also provides web links to these websites. INFLIBNET Centre gives information about the OPAC of Indian libraries along with their online address.

These categories of services are basically created to promote communication among the academic community.

INFLIBNET Centre also provides Internet based services to the users of those participating libraries.

Self Check Exercise

- 3) Describe the major implications of INFLIBNET with reference to its planned services.

Note: i). Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

13.4 INFLIBNET RESOURCES

INFLIBNET is a cooperative venture. Its resource strength depends on its components, participants and their resources. Catalogues of university libraries and special libraries of the R&D organisations have to be converted into machine readable form. It further derives its resources from colleges, industries, and private and public sector organisations. In fact, its scope is enormous and viability of INFLIBNET largely depends on this. All problems associated with implementation of INFLIBNET and its success is largely connected with vastness of these resources. The problems emerge due to voluminous data, its non-uniformity, non-standardisation, inconsistency in practices, variety of languages, scripts and above all due to its availability in manual catalogue card forms or print forms. It would have been much

better of INFLIBNET had stood on the shoulders of half a dozen regional networks as a federal structure.

13.4.1 University Catalogue

The collection of documents of university libraries and their catalogues serve as the backbone of training and education programmes, and also the research activities. Collectively, the collection of all Indian universities put together can be looked upon as the major national collection of documents. The INFLIBNET considers this collection as its major information resource. A survey conducted by INFLIBNET in 1985 showed that 21 university libraries had over 3,00,000 volumes, 48 libraries between 1,00,000 and 3,00,000 volumes, 51 libraries between 25,000 and 1,00,000 and 53 libraries had less than 25,000 volumes. On an average between 4,000 and 6,000 volumes are added annually by university libraries. The periodical collection together was about 2,00,000 items. The theses collection of the university libraries was significantly large and was considered as very important component of the national information resource.

Presently the INFLIBNET monograph database holds more than 80 lakh records from more than 100 universities, which includes textbooks, reference books, monographs, conference proceedings, etc. It has serials holdings of more than 96 universities/institutional libraries, which contain more than 47,591 holdings with 13,751 unique titles.

Secondary serials of 115 university libraries include 462 titles. This covers indexing abstracting journals along with titles available on CD-ROM or Diskette.

Current serials of more than 197 University/Institution libraries, which include 11,892 titles, are covered in the database. It also covers the holdings of six Document Delivery Centres that collaborate with INFLIBNET under the Document Delivery Programme. Presently its holdings are more than 4000 unique serial titles subscribed by the DDC. It also holds the records of doctoral theses. Presently there are more than 1.4 lakh records, which are submitted to Indian universities. This number is updated regularly.

The bibliographic information of the collection is available in manually prepared catalogue cards. The cataloguing practices differ from university to university. A large number of libraries use Dewey Decimal Classification Scheme for classifying documents. But there are inconsistencies. The subject headings are assigned on various basis. There are non-standardised practices in rendering the data. As such, the whole collection almost looks unusable, unless properly standardised.

In order to overcome the problem of inconsistency in the data provided by the member libraries in the database, INFLIBNET has prepared a manual titled "INFLIBNET Standards and Guidelines for Data Capturing" with the help of task force consisting of experts in the field. INFLIBNET Centre has provided it to the participating libraries to maintain uniformity. INFLIBNET Centre also recommends the use of AACR-2R, DDC and LCSH List.

13.4.2 R&D Library Catalogue

Compared to the university library data, the special libraries of R&D organisations of the country have better managed collection and data. A large number of R&D libraries have already computerised their catalogues and services. The funding is also sound. The INFLIBNET survey of 1985 showed that an average R&D institutional library in the country had 30,000 to 40,000 volumes, adds about 400-500 volumes in a year, and receives 300-500 titles of current periodicals.

In the case of R&D libraries, it is not the size but the intensity and specialised

nature of services that count. Based on the requirements, the special libraries have very good collection of technical reports, standards, specifications and patents.

13.4.3 National Library Catalogue

The National Library at Kolkata is supposed to receive copies of all Indian publications in all languages. The library prepares the national catalogue and maintains the collection. The entire catalogue of the National Library is being computerised. This serves as a significant information resource of the INFLIBNET.

13.4.4 National Union Catalogue

The NISCAIR (for Science and Technology) and NASSDOC (for social sciences) compile Union Catalogues of Serials. They are comprehensive and reliable. The union catalogue for scientific serials is kept fairly up-to-date and is available on machine-readable form. It can be accessed online through SIRNET of NISCAIR.

The union catalogue for social sciences is also being made available in machine-readable form by NASSDOC.

These national efforts constitute the information resources of INFLIBNET and also help and guide in formulating national standards, codes and practices for data capturing for INFLIBNET.

13.4.5 Indigenous Databases

The National Information System for Science and Technology (NISSAT) of the Department of Science and Technology had established some discipline oriented information centres. The areas include machine tools, food technology, leather technology, drugs, aeronautics, etc. These NISSAT information centres created and maintained indigenous databases in their respective areas. A few of these are available in machine-readable form. In addition, some specialised organisations create databases in different areas. These indigenous databases are also considered as input to the INFLIBNET resources.

13.5 COMPUTERISED ACCESS TO INFLIBNET RESOURCES

The INFLIBNET intends to provide access to the vast information resources available in the country. The access to information is also intended to all those who need it without any barrier of distance, language and status. This could be possible through machine-readable databases, computerised access and sophisticated communication links. Resource sharing among the participants of INFLIBNET programme can be improved through the use of modern technology.

The INFLIBNET has suggested several methods to prepare the national bibliographic information in such form which is easily accessible, and facilitates its sharing. The suggested procedures include:

- Retrospective conversion – converting manual catalogue into machine-readable form. Here, two methods are suggested:
 - downloading the standard bibliographic information corresponding to the required existing records using MARC database of the Library of Congress (USA), OCLC database of Online Computer Library Centre (USA), WLN database of Western Library Network (USA), etc.
 - Preparing data entry in standard form at various inputting centres using uniform worksheet displays for capturing data and simple computer programmes.

- Standards – INFLIBNET has suggested several bibliographic standards which include:
 - format specifications (bibliographic, project, institution and specialists) – Common Communication Format (CCF) is suggested;
 - cataloguing rules – AACR2 rules are suggested;
 - mandatory/optional data elements;
 - input formats;
 - guidelines for data input/update;
 - cataloguing/data input samples; and
 - standards, rules and guidelines to be used for country names, languages,
 - abstracting, indexing, subject-headings, periodical abbreviations, etc.
- Uniformity across the network is suggested with respect to:
 - access points for catalogue;
 - access points for bibliographic databases; and
 - access points for database of projects/institutions/specialists.

The syntax of the command set used by the search system for catalogue and bibliographic databases should have a high degree of commonality. The INFLIBNET also suggests that the search language should support users at invoice, intermediate and expert levels. For invoice users, the system should be completely menu driven and user friendly.

13.6 IMPLICATIONS OF INFLIBNET FOR RESOURCE SHARING

The major implications of INFLIBNET for resource sharing can be summarised as follows:

Creating Awareness: The INFLIBNET through its various regional and national meetings with librarians, information scientists, academicians, teachers, managers, vice-chancellors, etc., has created some awareness with respect to library resources, their sharing and networking.

Metropolitan City Network: Only after the creation of INFLIBNET and NICNET, various metropolitan city networks of libraries are taking shape. These include DELNET for Delhi libraries and information centres, CALIBNET for Calcutta, MALIBNET for Madras, BONET for Bombay, and for cities like Pune, Hyderabad, Bangalore, Mysore, etc. INFLIBNET has to collaborate with these vital regional units in a vast country like India.

Institutional Networks: Some of the homogeneous institutions working for a discipline or a mission are also making efforts to pull their resources together to form useful library and information networks. These include CSIR library network, IIT library network, DRDO library network, DAE library and information network, etc. They should also get hooked up with INFLIBNET in a suitable manner.

Accelerating Library Automation: It can be seen that a large number of libraries are computerising their library services. They are, to the extent possible, using the guidelines suggested by the INFLIBNET.

Realisation of the benefits of Cooperation and Resource Sharing: The University and academic libraries have realised the benefits of a cooperative venture such as the INFLIBNET, which helps in resource sharing. The realisation has been rather forceful in recent times due to several factors, such as:

- exponential growth of publications;
- powerful inflationary trend and severe budgetary constraints;
- increase in variety and degree of user needs;
- fragmentation and specialisation of knowledge;
- fusion of different subject fields and inter-disciplinary nature of research areas;
- self-sufficiency, a mirage;
- right to know and greater demand to access information;
- shift in emphasis from local ownership to collective access and from local holdings to document delivery capability; and
- technological influence of computer, communications and micrographics.

Thus the implications of the INFLIBNET for resource sharing amount to:

- access to large resources of information;
- avoiding unnecessary duplication;
- exhaustive search capability;
- precise retrieval of information;
- faster and speedier dissemination of information;
- fast and prompt document delivery;
- greater economy;
- standardisation and uniformity of procedures, techniques, hardware and software;
- increased facility for communication with experts through e-mail, bulletin boards, teleconferencing, etc.;
- gateway to international information systems and scientific communications; and
- each university library can access the richest resources.

Self Check Exercise

- 4) "INFLIBNET is an ambitious programme to support scholarship." Examine the statement critically.

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

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13.7 FUTURE STRATEGY OF INFLIBNET

In order to provide wide accessibility to information resources by inter-connecting libraries of colleges, universities and R&D institutions, INFLIBNET proposes to connect unique nodes throughout the country. These nodes include 150 university libraries, 50 autonomous colleges/P.G. centres and 2002 others comprising R&D institutions, document resource centres and sectoral information centres. -The hierarchical structure of information flow from each centre to the libraries of college/university/R&D institutions is given in Fig. 13.1. The functions of some of the nodes/centres shown in the figure are as follows:

Regional Centres (RC)

The Regional Centre will be responsible for maintaining the union catalogue of monographs, serials and non-book materials held in the libraries of the region. There will be four regional centres to be located in four geographical regions of the country – north, south, east and west. The four regional centres will be interconnected through communication links. Each regional centre will also maintain the copies of union catalogues of other regions, so that union catalogue enquires relating to the entire country's holdings can be handled at the regional centre itself, thereby reducing the traffic between the regional centres.

Sectoral Centres (SC)

These are for bibliographic and information services. About 40 SICs will be considered. These may belong to the University system as well to outside institutions. The SICs will have a rich collection of materials in their specialised areas. The centres will be based on subject specialisation.

Document Resource Centres (DRC)

100 libraries/information centres will be designated as Document Resource Centres. Their main function will be to provide document delivery service. These DRCs will be identified from universities/R&D institutions, based on their collection strengths. DRCs will be suitably supported for strengthening their document collection and photocopying facilities.

The terminal at college/departmental library is to be connected to the university library. In respect of non-bibliographic services, the terminal at the university library is to be connected to the Regional Centre. For bibliographic services, the University library should have direct access to Sectoral Information Centre. For document delivery through Fax and Non-Fax, the University library or R&D institution library should be connected directly to a Document Resource Centre. The catalogue search in the overall system hierarchy should be such that a user could first find out from his college/department library if his book is available or not and if not available, as a next step, from his university library and as final resort to approach the Regional Centre to find out, through union catalogue, if the book required by him is available in his region or in any other region or not at all available in the network.

The catalogues of libraries are aggregated bottom up as follows:

College/Dept. Library	University Library	Regional Centre
Catalogue of its own collection	Catalogue of its own collection and of all its colleges and departments.	Union catalogue of the Region and Union Catalogues of other Regions: Database on projects, institutions and specialists.

Since more and more university libraries are availing services of INFLIBNET, the volume of traffic is expected to grow substantially. If the present data networks fail to provide full service to the INFLIBNET users then there may be a need to establish a captive network for INFLIBNET Programme. The Block Schematic of such a network is shown in Figure 13.2. The network will link libraries not only in cities but in remote and far off places too. Connectivity among the nodes will be provided through a mix of satellite and terrestrial systems.

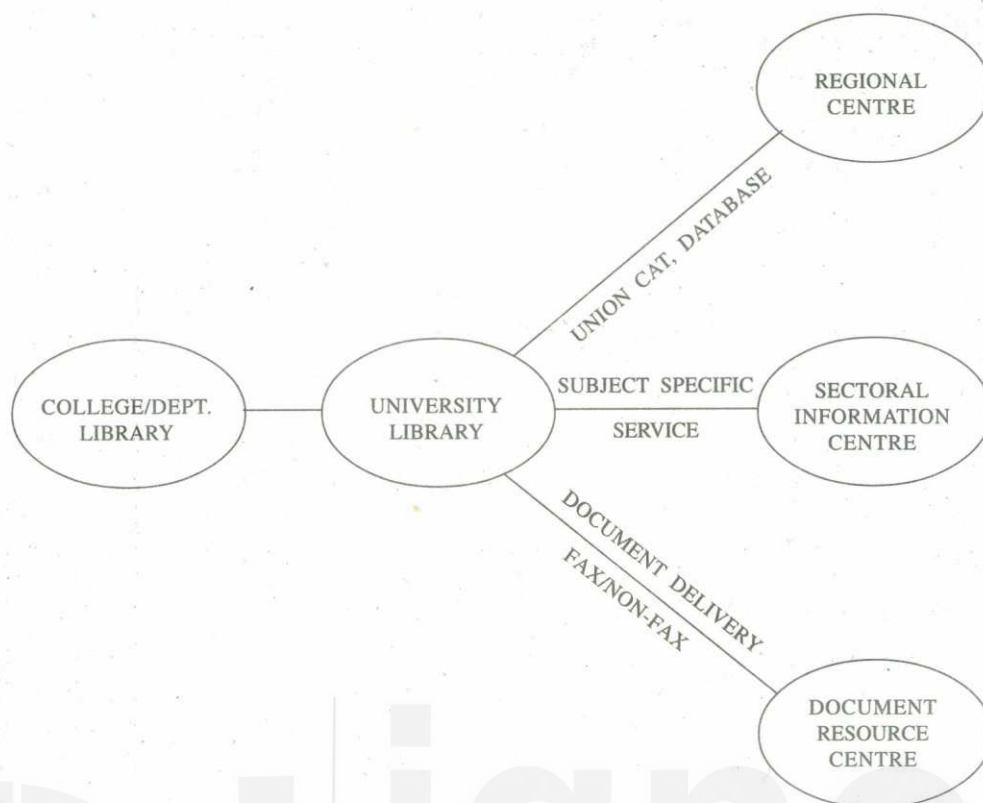


Fig. 13.1: Communication Hierarchy

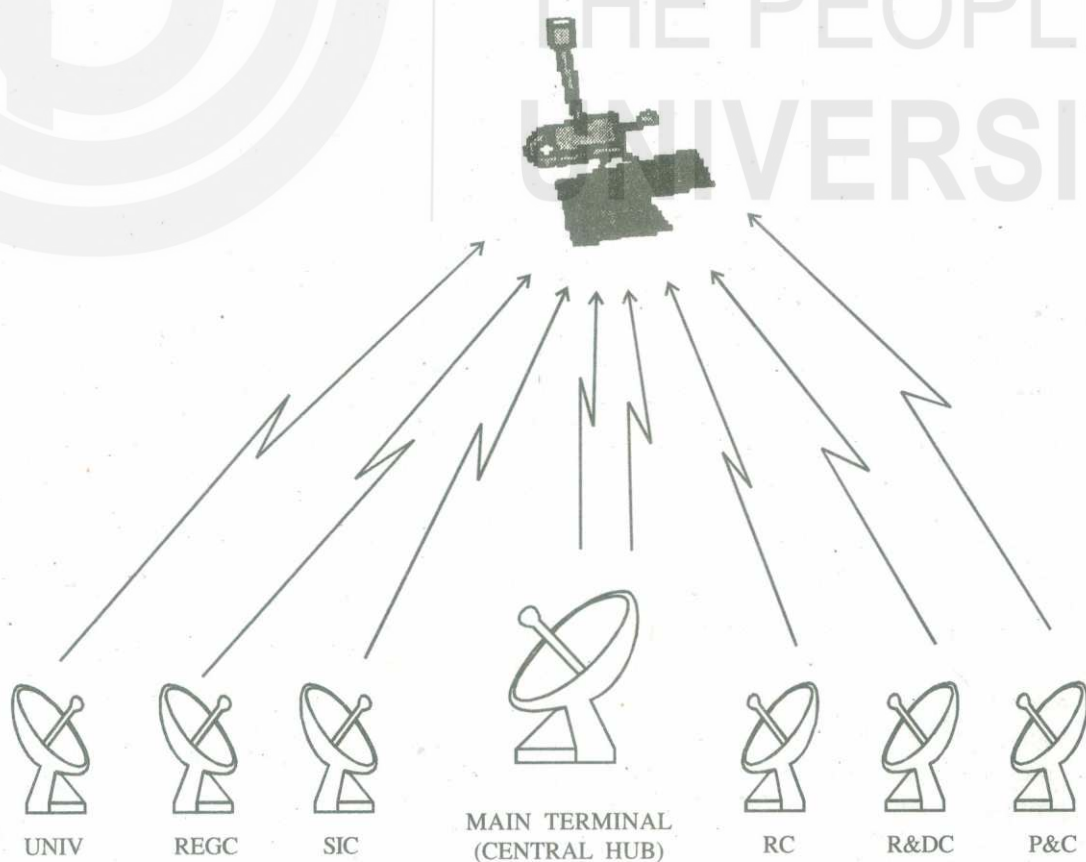


Fig. 13.2: Schematic of Overall Network (INFLIBNET)

The future plans of INFLIBNET Centre include the following:

- a) Developing modules on e-learning, education and teleconferencing;
- b) Collaboration with national documentation Centres and other resourceful libraries; and
- c) To conduct specialised training programme on Web Design, Standards, Digital Libraries and other subjects.

13.8 UGC-INFONET

Indian University community forms one of the largest education systems in the world. There are 294 Universities/Institutions, 13150 affiliated colleges having 88.12 lakh students and 4.27 lakh teachers. For better coordination and communication among the academic community UGC in partnership with ERNET which is a Scientific Society under the Ministry of Communications and Information Technology (ICT) has set up a communication network called INFONET. This network is funded by UGC. INFLIBNET Centre, which is autonomous Inter University Centre of the UGC, is monitoring and coordinating agency for INFONET. Till last year 124 universities were given grants under this project to be connected to INFONET (see Unit 14 for more detail).

13.9 SUMMARY

The UGC sponsored, an ambitious country-wide Indian library and information centre INFLIBNET network is explained.

The INFLIBNET proposes to link all libraries belonging to universities, colleges, R&D laboratories and other national information centres. Its emphasis is on the academic libraries.

It suggests use of computers communication and document delivery technology for data capturing, data preparation, information processing, its transfer and delivery.

It aims at providing access to large information resources to users from any remote place in the country so that the poorest library could access the richest information resources.

It is a cooperative venture and seeks cooperation of participants at every level.

Its major services include shared cataloguing, information access, retrieval and dissemination, document delivery, union databases, facilitating communication of experts, referral service, avoiding duplication of costly resources, overall economy, training and sustaining the network activities.

Implications of INFLIBNET for resource sharing among the participating libraries are identified as creating awareness regarding library and information networks, standardisation and uniformity, encouraging library automation activities, avoiding duplication and achieving overall economy. It has to develop proper collaboration with metropolitan city networks.

13.10 ANSWERS TO SELF CHECK EXERCISES

- 1) INFLIBNET is a project sponsored by the University Grants Commission of India to link the libraries and information centres including about 294 universities/institutions, over 13,150 affiliated colleges, having 88.12 lakh students and 4.27 lakh teachers. It is a computer network to put together all existing and anticipated information resources in a standard machine readable form and to make it

accessible to facilitate specific information search from almost any place in the country.

The INFLIBNET has been established as a project of the registered society, IUCCA and its head office is located at Ahmedabad in the campus of Gujarat University.

The INFLIBNET is a cooperative venture and realises its success on cooperation of all its participants for mutual benefit. It suggests use of modern technology and techniques using computers, telecommunication, micrography and document delivery.

The INFLIBNET is considered as an economical tool in the current environment of budgetary constraints and inflationary trends by avoiding multiplication of costly resources and by creating conducive situation for resource sharing.

- 2) INFLIBNET is to be a computer communication network inter-connecting libraries and information centres in universities, deemed universities, institutions of national importance, UGC information centre, R&D institutions and colleges. Since the libraries and information centres are the repositories of information resources, their linking with one another will improve and create greater opportunities for resource sharing. The main purpose of connecting, various centres is to make their resources accessible and available for sharing by all.

Let us examine some of the major objectives of INFIBNET from this viewpoint.

To evolve a national network – The concept of network is the only modern way wherein the latest technology developments in computer and telecommunication have provided for faster and reliable transfer of information from one centre to the other. It provides speedier means of sharing resources, and reliable methods of information handling and services.

To create online Union Catalogue – The union catalogues of books, thesis, serial publications and non-book materials of the participants of INFLIBNET in fact try to reflect the entire national bibliographic information. These union catalogue are made accessible online, to increase their utility. A library, which does not have a specific document, can easily identify through the online union catalogue, as to where it is available, and accordingly it can register its request for inter-library loan.

To provide access to databases – The database created indigenously by various sectoral information centres and UGC information centres and various bibliographic databases available at other information centres, could be accessed. This provides better facility for searching and retrieving information.

To encourage shared cataloguing – The preparation of shared catalogues economises on cataloguing efforts, helps in avoiding duplication of costly material, brings in uniformity and standardisation. These are the incentives for resource sharing.

To implement computerisation – To encourage creation of databases, to facilitate communication among experts, to develop trained manpower for network management and such other objectives of INFLIBNET will help in creating and sustaining conducive environment for resource sharing.

- 3) INFLIBNET is planned as a multiple function/services network of libraries and information centres in the country. Compared to a single function/service network, the multiple function/service network is more economical. The cost in such a network decreases progressively as the number of participants in the INFLIBNET increases.

INFLIBNET services that are projected and planned include catalogue-based

services, database services, document supply services, collection development, and communication-based services.

The major implications of INFLIBNET may be identified as increased awareness regarding library automation, library networking, resource sharing and use of latest technology and computer telecommunications for library and information handling activities. The implications of INFLIBNET can also be seen in the growth of metropolitan city networks such as DELNET, CALIBNET, MALIBNET and BONET. Similarly, there are institutional networks, which are being established.

The implications of INFLIBNET can be identified in the context of various multiple functions and services that are planned and projected.

The INFLIBNET, Information and Library Network of India is to offering various services such as catalogue-based services, database services, document supply services, collection development and communication based services. The services will surely benefit the libraries and information centres in providing their users the required information at minimal cost through effective sharing of their resources.

a) Catalogue-based Services:

The following services are planned:

- Shared cataloguing;
- Union Catalogues;
- OPAC;
- Catalogue production;
- Book processing.

Shared Resources: The objectives of shared cataloguing is to share by a library the work of cataloguing of publications already done elsewhere by any other participant library of INFLIBNET. The service will enable a library to use the catalogue information available in a major, near by university library or regional centre for cataloguing of new publications added. This means, a document is catalogued only once at the time of its first input into the network. The efforts and experiences of cataloguing are shared.

Union Catalogue: The objectives of Union Catalogue service is to provide a Union Catalogue of books, monographs, serials and non-book materials held in different libraries in the country. The service provides information regarding the specific library, or libraries, where copies of a required document are available. The Union Catalogues are planned to keep up-to-date. They are to provide information of the location of document with geographical proximity. For example, if a scientist from Mysore is searching Union Catalogue, he is obviously interested to know the availability, first in the libraries in and around Mysore. The service of Union Catalogues will help him in procuring a photocopy or the document on inter-library loan.

OPAC: The Online Public Access Catalogue service is planned in INFLIBNET to provide online access to catalogue information to users at individual library level or at university or at higher level of regional catalogue.

The catalogue production service provides a facility to individual libraries to produce their library catalogues in the form of cards, books, magnetic tapes floppy/CD-ROM, etc.

Book Processing: The book processing services provide for preparation of spine labels, book cards, list of additions, etc. using the catalogues of INFLIBNET at different levels.

b) Databases Services

The database services planned in INFLIBNET include:

- Bibliographic databases;
- Non-bibliographic databases;
- Databases of Projects/Institutions/Specialists.

All these databases are to provide searching and retrieving facility for the users. Libraries can make use of the database services for retrospective searches. SDI services or for current query searches.

Bibliographic databases: The major bibliographic databases such as chemical Abstracts, BIOSIS, COMPENDEX, MATHSCI, etc., are planned to be counted at one place for providing access from other places. This service is planned to eliminate duplication in acquisition of costly secondary sources.

Non-bibliographic databases: These databases, containing factual information, even full text document, descriptive information, directory type information, etc., is planned for searching and retrieving in INFLIBNET. The databases include those material procured from commercially available sources and also the ones developed within the country.

Databases of projects/institutions/specialists: The INFLIBNET also developed indigenously various databases concerning projects, institutions and specialists.

- 4) INFLIBNET is a library and information network of India sponsored by the University Grants Commission. In its totality, it aims at inter-connecting some 200 universities/Institution 294 over 13,150 colleges, about 88.12 Lakh students and 4.72 lakhs teachers. It tries to bring all available bibliographic information of all types of documents in the form of Union Catalogues in a standard record format in machine-readable form. Its objective is to make the information accessible and available to all those who need it irrespective of distance, language, status, etc.

The difficulties are many. The major one seems the data conversion from manual catalogue card data of individual libraries into a machine readable Union Catalogue of monographs, serials and other publications. The varied cataloguing practices, classification schemes, indexing, etc. followed at the individual library level and their vast data.

The technological developments in information storage capacity and the media available for storage of information can handle the entire national bibliographic information. The computers of today can process the vast information and can retrieve precisely any required information through very complex search queries. The developments in telecommunication and satellite communication can handle the huge daily-required information from almost any place to any destination in India. The country has its own communication satellites to handle the data traffic. In this light, INFLIBNET is an ambitious programme in the country to support scholarship. The academic and scientific community will be able to get access to academic resources of the country. The network will facilitate sharing of these limited resource and help avoiding duplication in the holding to an extent.

13.11 KEYWORDS

- | | |
|-------------------|---|
| Automation | : The organisation of machine handling of routines or operations, requiring minimal human intervention. |
|-------------------|---|

Document Delivery	: This system enables users to order copies of materials retrieved by online searches, either by direct despatch of items by the host or via an agent.
Database	: Information stored on computer files and accessible via a remote terminal and telecommunications link.
Electronic Mail	: The transfer of messages, memoranda, letters, reports, etc. between individuals or organisations by the use of videotext, online and online networks.
Facsimile	: An electronic system for transmitting pictures and graphic materials over very high frequency airwaves.
Gateways	: Any system permitting users of one computer system to access another.
Network	: A system of physically separate computers with telecommunication links, allowing the resources of each participating machine to be shared by each of the others.
OPAC	: (Online Public Access Catalogue) An automated catalogue system stored in machine-readable form and accessed online by the library clientele via a VDU and employing user-friendly software.
Reprography	: The reproduction in facsimile of documents of all kinds by any process using light, heat or electric variation – photocopies, micro-copies, blue prints, electro-copies, thermo-copies, etc.
Teleconference	: A conference with participants in different locations linked by telecommunication devices.

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UNIT 14 LIBRARY NETWORKS AND CONSORTIA

Structure

- 14.0 Objectives
- 14.1 Introduction
- 14.2 Library Consortia
 - 14.2.1 Definition and Meaning
 - 14.2.2 Growth of Library Consortia
 - 14.2.3 Need for Consortia
 - 14.2.4 Objectives of Library Consortia
 - 14.2.5 Advantages of Library Consortia
- 14.3 Consortia in India
 - 14.3.1 INDEST
 - 14.3.2 FORSA
 - 14.3.3 UGC – Infonet
 - 14.3.4 CSIR E – Journals Consortium
 - 14.3.5 IIM Consortium
 - 14.3.6 HELINET
- 14.4 Consortia in Other Countries
 - 14.4.1 IDAL
 - 14.4.2 KERIS
 - 14.4.3 CONCERT
 - 14.4.4 CURL
 - 14.4.5 ICOLC
- 14.5 Summary
- 14.6 Answers to Self Check Exercises
- 14.7 Keywords
- 14.8 References and Further Reading

14.0 OBJECTIVES

After reading this Unit, you will be able to:

- define the term ‘library consortia’ and understand the meaning of consortium;
- understand the evolution of library consortia;
- explain the objectives, characteristics, and advantages of library consortia;
- discuss the different kinds E – Consortia available in India; and
- familiarise yourself with the consortia available in other countries also.

14.1 INTRODUCTION

We have already discussed in detail about the concept, purpose, and management of library and information networks in India like INFLIBNET, CALIBNET, DELNET, etc., in Block 4 of MLIS – 05. So this Unit focuses only on Library Consortia.

Consortium of libraries is known for sharing of digital resources at local, national, and international levels. Several libraries in India as well as in foreign countries have formed consortia to share their human and electronic resources in order to

satisfy the users' expectations and demands for rendering quality services.

Keeping in view the above, let us now discuss in this Unit, the concept of library consortium, its growth, need, objectives, advantages, etc. We shall also discuss some of the prominent library consortia available in India as well as abroad.

14.2 LIBRARY CONSORTIA

14.2.1 Definitions and Meaning

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 Organisation / 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."

From the above definitions, it is clear that the consortium is a cooperative association of different types of libraries. Its main purpose is to share human and information resources for facilitating the research and learning of the member's constituents by collective strengths of the institutions. It supports resource sharing and provides services to users through cooperative acquisition, access to electronic resources, access to physical collections, enhanced inter library loan and document delivery.

14.2.2 Growth of Library Consortia

Generally speaking, academic libraries have been largely instrumental in the formation of consortia, as evidenced in the literature and websites of various consortia.

Traditionally, the common form of library cooperation began with the sharing of union catalogue, storage facilities, collection development and human resources at local, national and regional level so as to provide an efficient service for their end users. The other form of cooperation was based on inter – library – loan services where cooperating libraries agree to enter into reciprocal borrowing and use of materials from other libraries. This form of cooperation enabled libraries to borrow books and periodicals, which were not available locally. Postal, Fax, and Courier Services were used as media for sending requests and delivering material/information.

In the present day context, the library consortia have changed and moved on to digitisation, preservation and virtual reference since many libraries started getting automated and used computers for bibliographic processing activities and database searching. The real explosion of information was brought about by the developments in the information technology.

According to Landesman and Reenen (2000) the present day consortia consists of "...elaborate committee structures, full-time staff and executive directors, web pages, policies, procedures, and the panoply of an organisation to be taken seriously...they are beginning to include other types of organisations as well as libraries, museums, hospitals, research groups and historical societies." The growth in the information industry and the Internet as a delivery system has resulted in

14.2.3 Need for Library Consortia

The libraries at all levels graduated themselves from traditional storehouse of information to information providers due to the information revolution brought about by development of Internet and World Wide Web. It is also a well known fact that the traditional mode of operation of academic libraries is in deep crisis. Therefore, it is important for academic libraries to form consortium due to the following reasons:

- the continuous price increase for scientific information combined with the lack of funding for academic libraries has led to massive yearly cancellations of scientific journals;
- the exponential growth in the production of information/knowledge has made it impossible for the individual library to procure all the relevant information. The effect has been that libraries have become more and more dependent on inter-lending in order to meet the requirements of their users;
- the rapid technological developments have resulted in a constant pressure for new hardware, software and education and training of library staff; and
- the application of new technologies (i.e. World Wide Web) in all media has contributed to rapid escalating user expectations in the sense that the users expect library information to be delivered just as fast as any other information they need in their daily lives.

14.2.4 Objectives of Library Consortia

The important objectives of the library consortia are to:

- develop co-operative and consortial solutions to 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;
- assist libraries in the consortium to pursue and achieve their own institutional objectives;
- provide strong leadership and opportunities for innovation for the research communities;
- provide the community with physical and virtual access to the shared resources of all libraries;
- provide a framework of mutual support, enabling its members to develop individual and collective strengths;
- raise the profile of libraries and its members in appropriate forums to ensure an understanding of the value of the research libraries to the national and international research community;
- develop a plan for future directions of libraries;
- consider libraries mission and membership nationally;
- identify priorities for funding within libraries and to be proactive in influencing national agendas/priorities for funding for research support;
- influence national agencies engaged in consortial purchase activities, in order to ensure the needs of research and scholarship remain a priority;
- publicise and disseminate information about libraries and its activities as widely as possible in appropriate contexts;
- make appropriate responses to consultation processes;
- provide access to the bibliographic records of all libraries members;

- implement a strategy for enhanced access to and provision of catalogue records for serials;
- enrich the provision of machine-readable bibliographic records for print and non – print resources housed in member libraries;
- provide access to consortium holdings recorded on consortium union catalogue to know the location of information; and
- provide metadata for the electronic resources accessible from consortium libraries.

14.2.5 Advantages of Library Consortia

The following are some of the advantages of library consortium:

- 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;
- Cooperative research and development in application of information technology enhances service and realises cost efficiencies;
- 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 since the consortium acts as an agent for all member libraries and negotiates a purchase price that is lower than that available to individual institution;
- Enhanced library services are provided with an emphasis on access to new electronic resources including online databases and services offered through the Internet and World Wide Web.
- Expediting inter library borrowings at lower cost is possible.

Self Check Exercises

- 1) Define the term 'Library Consortia'.
- 2) Discuss the advantages of library consortia.

Note: i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of this Unit

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14.3 CONSORTIA IN INDIA

As we have stated earlier, consortium is ubiquitous because of digital form of information published across the world through Internet. It refers to cooperation, coordination and collaboration among the libraries for the purpose of sharing information resources. In India, the real drive for cooperation was seen during 1980s due to the developments in Information and Communication Technology. Some of the academic libraries in India have formed consortia. A few of the major consortia in India are given below:

- INDEST
- FORSA

- UGC – INFONET
- CSIR E – CONSORTIA
- IIM CONSORTIA
- HELINET

Let us now briefly discuss the above in the following sections:

14.3.1 INDEST

INDEST stands for Indian National Digital Library in Science and Technology. It is a “consortia based subscription to Electronic Resources for Technical Education Systems in India”, set up by the Ministry of Human Resource Development based on the recommendations made by the Expert Group appointed by the Ministry under the Chairmanship of Prof.N.Balakrishnan. The headquarter of the consortium is located at Indian Institute of Technology, Delhi.

Objectives of the INDEST

The main objectives of the INDEST consortium are to:

- provide a common gateway of journal literature subscribed by seven IITs and the Indian Institute of Science, to subscribe, access and manage their journals.
- provide common access and search interface for the journals subscribed by all members.
- provide access to the common database for the usage benefit of students and researchers in regional engineering colleges (National Institutes of Technology) and support them in sharing the collection of IITs and IISc.

Features of INDEST

The common features of INDEST are:

- It provides common access to TOCs (Table of Contents) and full text articles;
- It allows to search common TOCs and database for both print as well as online journals with scholarly content subscribed by all members of consortium;
- It provides links to full text articles, where available;
- It facilitates to search a bibliographic database of articles and links to full text;
- It has provision to mirror the content in the server of each participating consortium member;
- It has also provision to view the list of journals subscribed by each consortium member; and
- It is possible to send E-mail request for the photocopies from one consortium member to the other.

How Consortium Operates?

The Consortium operates through its Headquarter. The Ministry of Human Resource Development (MHRD) has agreed to provide funds required for:

- subscription to electronic resources for IISc, IITs, NITs, RECs and a few other institutions; and
- operation of the consortium.

The consortium headquarter functions under a National Steering Committee, which consists of 10 members, for inter-institutional coordination and for taking decisions on policy issues under the overall policy direction of the Government of India. The Ministry has also set-up a National Review Committee, which comprises 7 members, for the INDEST Consortium. The National Review Committee shall be responsible for overall policy, monitoring and coordination with UGC and AICTE for this Consortium.

Members of INDEST

Based on the recommendations of the MHRD Task Force, institutions have been grouped into three categories as detailed below:

● Category I (8 institutions)

- Indian Institute of Science, Bangalore
- Indian Institute of Technology, Bombay
- Indian Institute of Technology, Delhi
- Indian Institute of Technology, Guwahati
- Indian Institute of Technology, Kanpur
- Indian Institute of Technology, Kharagpur
- Indian Institute of Technology, Madras
- Indian Institute of Technology, Roorkee

● Category II (20 institutions)

- All Regional Engineering Colleges (RECs/NITs) – 17 Institutions
- Indian School of Mines, Dhanbad
- North Eastern Regional Institute of Science and Technology, Itanagar
- Sant Longowal Institute of Engineering and Technology, Sirsa

● Category III (15 institutions)

- Indian Institute of Management, Ahmedabad
- Indian Institute of Management, Bangalore
- Indian Institute of Management, Calcutta
- Indian Institute of Management, Indore
- Indian Institute of Management, Kozhikode
- Indian Institute of Management, Lucknow
- National Institute of Training in Industrial Engineering, Bombay
- Indian Institute of Information Technology and Management (IIITM), Gwalior
- Indian Institute Information Technology and Management (IIITM), Allahabad
- Punjab Engineering College, Chandigarh
- Dhru Bhai Ambani Institute of Information & Communication Technology, Gandhinagar
- Tata Institute of Fundamental Research, Laboratory of Computational mathematics, Pune
- Birla Institute of Technology, Ranchi
- Nirma Institute of Technology, Ahmedabad
- SONET, Hyderabad

Being an open-ended proposition, the Consortium also invites all AICTE-accredited and UGC-affiliated institutions to join hands with the leading Engineering and Technological Institutions in India and share the benefits it offers in terms of lower subscription rates and better terms of agreement with the publishers. Through this offer, about 60 more Government or Government-aided engineering colleges and technical departments in universities have joined the Consortium with financial support from the AICTE.

The following are the Electronic Resources available through INDEST for different categories of members as mentioned above. The details of resources, and the category of members who can access the resources are mentioned hereunder (see table 14.1):

Table 14.1: Details of Resources and Member Category

Resources	Member Category who can access the resources
FULL TEXT SOURCES	
IEL Online	All Categories
Science Direct and Ideal*	I
Science Direct (on trial)	II
Springer Verlag*	I & II
ABI / INFORM	I & III
ACM Digital Library	I & III
ASTP	II & III
India Informer*	III
CRIS INFAC Business Intelligence Service*	III
CERC's Insight*	III
Springer's Link	III
BIBLIOGRAPHIC DATABASES	
COMPENDEX+ and INSPEC	I
Web of Science	I
SciFinder Scholar	I
MathSciNet	I
JCCC (J-Gate Custom Content for Consortia)	I, II & III
J – Gate (Free for the first year)	I and II

* Print subscription to be maintained by the beneficiary institutions.

\$ Limits on number of downloads.

14.3.2 FORSA

In the early 1980s, librarians working in institutes where astronomy and astrophysics was one of the major research areas felt the need to establish a forum among the libraries to enable sharing of resources due to the following reasons:

- Very few institutes in the country were involved in research in astronomy and astrophysics;
- Considerable interaction already existed between astronomers of institutes doing research in astronomy and astrophysics;
- No library can be self-sufficient in the resources, and access to the holdings of the member libraries would help in minimising duplication; and
- The information resources should be used to the mutual advantage of the members as well as for optimum use.

Based on the proposed plans made by the members of Forum, the first meeting of the Forum for Resource Sharing in Astronomy/Astrophysics (FORSA) held on July

29, 1981, at Raman Research Institute, Bangalore. Emphasis was placed on obtaining detailed information related to literature in Astronomy and Astrophysics for speedier dissemination of information.

These discussions resulted in the following compilations and procedural matters in implementing the proposed plans:

- **Union Catalogue of Current Journals:** The union catalogue would help to know the availability of a particular journal at a glance in the field of Astronomy and Astrophysics. The mode of receipt in the particular library would also help in seeking a photocopy of any important paper.
- **Union Catalogue of Annuals and Irregular Publications:** Apart from regular journals, annuals and other publications published periodically but on a continuous basis would be included.
- **Union Catalogue of Reference Tools (Non book sources):** Astronomy/ Astrophysics data published in journals or in a report from that are not readily accessible. Union Catalogue of such material would facilitate their retrieval.
- **Union Catalogue of Reference Tools (Book sources):** Catalogues such as Star Catalogues, Ephemerides, Almanacs, Directories, Encyclopedias, etc.
- **Recent Research in Astronomy and Astrophysics (RRIA):** The list would include bibliographic information about preprints received by other libraries, papers sent for publication in journals, and bibliographic details of non-conventional publications.
- **Books on Order:** The information about the list books ordered by member libraries. This would facilitate the members to get to know new publications in the field. Duplicate acquisition could also be avoided.
- **Union Catalogue of Theses:** Information about the theses held by FORSA member libraries would be helpful.
- **Union Catalogue of Duplicates:** This would list duplicates available in the member libraries for the purpose of either giving it to a member library, or as a donation or gift.
- **Facilities with FORSA Libraries:** The gadgets available in each member library such as microfilm reader/printer, photocopying machines, card duplicators, etc. would be listed. It would also include translation facilities.
- **FORSA Basic Information:** A directory of FORSA libraries giving the basic information for ready reference was to be prepared.

Procedural Matters

- The bibliographic information needs to be passed on to the compiling library with utmost speed. Recourse to telex/telegram/telephone could be taken depending on accessibility.
- The compiling library would assume full responsibility in the planning and execution of the product concerned. The Librarian, TIFR would act as the coordinator until the plans are streamlined.
- The various plans would be treated as part of the regular activity in the library and prompt attention should be given in supplying information to the libraries under FORSA.

FORSA Members

The member libraries of FORSA are:

- Indian Institute of Astrophysics (IIA), Bangalore.
- Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.
- National Centre for Radio Astrophysics (NCRA), Pune.

- Nizamiah Observatory (CASA), Hyderabad.
- Physical Research Laboratory (PRL), Ahmedabad.
- Raman Research Institute (RRI), Bangalore.
- Tata Institute of Fundamental Research (TIFR), Mumbai.
- State Observatory (S.O.), Nainital.

FORSA Activities as Consortium

The following are some of the activities carried out by the FORSA members:

- Inter library loan.
- Journal article requests.
- FORSA members directory.
- Assistance to university academics.
- Access to additional journals by way of consortia subscriptions.
- Subscribing to 'Nature Online' through consortia subscription.

Resources of FORSA

- 23 Astronomy journals of Kluwer Publishers.
- The Journal 'Nature'.

12.3.3 UGC – Infonet

University Grants Commission (UGC) is a national body for the coordination, determination, and maintenance of the standards of University Education in India (See Unit 2 of this course for detailed discussion of UGC). It has initiated a programme called The UGC-Infonet E-Journals Consortium to provide online access to electronic journals and databases in all disciplines to the universities in India. The programme aims at increasing accessibility of electronic resources to the universities. It will go a long way in mitigating the severe shortage of periodicals faced by university libraries for many years. The E-Journals programme is a cornerstone of the UGC-INFONET effort, which aims at addressing the teaching, learning, research, connectivity and governance requirements of the universities. The effort was announced by the Hon ble Prime Minister of India, Shri Atal Bihari Vajpayee and the network was activated by the Honble Minister for Human Resources Development, Dr. Murli Manohar Joshi, at the inauguration of the Golden Jubilee Celebrations of the UGC on December 28, 2002 at New Delhi. The E-Journals programme demonstrates how communication networks and computers can be used to stretch available funds in furthering these aims.

INFLIBNET Centre is an autonomous Inter-University Centre of the University Grants Commission, located at Ahmedabad (See Unit 13 of this course for detailed discussion of INFLIBNET). It is the coordinating and monitoring agency in the UGC - Infonet Project. It makes link between UGC, ERNET and universities. INFLIBNET is also responsible for providing training to university library professionals in the use of this network for providing variety of services to the users.

ERNET India, an autonomous scientific society under Ministry of Communications and Information Technology, is providing Internet access to Education and Research community in the country for over 10 years. ERNET is a nation-wide terrestrial and satellite network with points of presence located at leading education and research institutions in major cities. ERNET India in partnership with the University Grants Commission in setting up UGC-Infonet programme, it is proposed to use information and communication Technology (ICT) and Internet to transform learning environment from a mono-dimensional one to a multi-dimensional one. As a result, UGC, INFLIBNET and ERNET have come together to meet the challengers that may face the education community with respect to real time information.

UGC-Infonet will be a boon to the higher education systems in several ways. It will:

- become a vehicle for distance learning to facilitate spread of quality education all over the country.
- be a tool to distribute education material and journals to the remotest of areas.
- be a resource for researchers and scholars for tapping the most up-to-date information.
- form a medium for collaboration among teachers and students, not only within the country but also all over the world.
- be an Intranet for University Automation.
- encompass entire University Systems for most efficient utilization of precious network resources.
- establish a channel for Globalisation of Education and facilitate the universities in marketing their services and developments.

The salient features of UGC-Infonet are:

- Scaleable Architecture to grow from Universities to affiliated Colleges.
- Nation-wide Terrestrial Backbone using Fiber Optic links.
- Integrated Satellite WAN supporting broadband and SCPC VSAT technology.
- Comprehensive Network Management Systems for overall monitoring of the network, down to each and every device.
- Linkage with other Academic and Research Networks all over the world.
- Data security and virus protection using firewalls and Intrusion Detection Systems.
- Dedicated Data Center for Web hosting, e-Journals and Mail Boxes.
- Mirror sites spread all over the country for content hosting.
- Broadband Multimedia and Video Channels for Distance Learning.

Implementation of UGC – Infonet

The UGC-Infonet will be overlaid on ERNET Infrastructure in a manner so as to provide assured quality of service and optimal utilisation of bandwidth resources. The network, based on open IP platform employing state-of-the-art technologies like IP or TV, enabling on-line response to queries, will be run and managed by ERNET India. The project will be funded by UGC with 100% capital investment and up to 90% of recurring costs. Towards this end, a MoU has been signed between UGC and ERNET India for implementation of UGC-Infonet and also for long-term technology partnership. A joint technical and tariff committee, consisting of leading experts in the country has also been setup to guide and monitor the design, implementation and operations of UGC-Infonet. INFLIBNET would be the nodal agency for coordination of the UGC-Infonet and facilitate linkage between ERNET and the Universities.

Data Centre

A data centre with large server capacity is being set up for the UGC-Infonet. Contents of common interest will be maintained at this data center. Each University will have the option of hosting their website and the journals subscribed through University Consortia.

The data centre will be:

- dedicated for the UGC-Infonet.
- comprising of Email, Web, News and Proxy Servers.
- protected with firewalls and IDS.

- co-located with Satellite Hub.
- within single hop access to the Universities over VSAT.
- hosting a Portal on Higher Education in India.

Subscription to Electronic Journals

With globalisation of education and competitive research, demand for journals has increased over the years. Due to lack of funds and increase in the prices of journals, libraries have been forced to cut subscriptions of journals. To overcome this problem of libraries, UGC has turned towards the Internet to cover the gap between demand and supply by way of e-journals that can be subscribed online. It is also exploring the possibilities of alliances with publishers for adapting a consortia-based approach for e-subscription of journals. INFLIBNET Centre will place orders for subscription to e-journals on publishers/aggregators, on behalf of member universities of the consortium. INFLIBNET Centre is also responsible for creating awareness about use of e-journals among the academic and research community of the country. These journals will be made available over UGC-Infonet to all the universities.

UGC-Infonet Training

Training manpower is one of the most critical resources for successful implementation of high-tech programmes like UGC-Infonet. INFLIBNET/ERNET is giving training to network managers and library professionals for managing the WAN connectivity, network security, Mail Server, Web Server configuration and e-journal access management at their premises. More than 108 network managers from around 99 universities have been trained at ERNET India, New Delhi. Around 63 Library professionals from more than 63 universities have been trained at ERNET India, New Delhi. Above 63 Library professionals from 63 universities have been trained for e-resources management at INFLIBNET Centre, Ahmedabad.

Status of UGC Infonet Connectivity in Universities as on March 31, 2004 (Source: INFLIBNET Newsletter March 2004)

Agreements Signed	131
Funds Released From UGC	150
PO Received by ERNET	112
Site Survey/Link Procurement Started	4
Site Survey/Link Procurement Completed	9
Equipment Shipped	5
Installation in Progress	14
Existing ERNET Links	21
Links Commissioned	80

12.3.4 CSIR E – Journals Consortium

The Council of Scientific and Industrial Research (CSIR) which has thirty eight constituent laboratories together subscribes to over 4,000 scholarly and research journals at a cost about Rs. 25 crores every year. The collection of print editions creates an annual depository of 5,00,000 plus printed articles spread across the labs in stand-alone manner. In order to enhance the accessibility, use and increase the resource base of world S&T literature, the fifth meeting of the Heads of CSIR Laboratories & Information Centres held at RRL in Trivendrum in February 2001, had recommended that a Consortium for access to E-journals be set up. Consequently, Director General, CSIR set up a Study Group to collect and compile information on the journals presently subscribed to by the CSIR laboratories, including CSIR Headquarter and also to study the feasibility and economic viability of CSIR laboratories subscribing to identified journals on-line on a consortium basis and

devise a system for the management of the consortium and equitable sharing of the expenditure thereof. The Study Group submitted its report in October 2001 with the following recommendations:

- The CSIR must set up a Consortium to provide electronic/online access to journals for the CSIR laboratories.
- No major additional requirements of manpower or hardware are foreseen.
- Informational resources are a basic necessity for an R&D organisation.
- CSIR is a premier R&D organisation and presently invests around Rs.25 crore annually for books and journals, some of which are being subscribed in duplicates/triplicates by the labs of CSIR.
- Individual labs of CSIR spend between Rs.10 and Rs.150 lakhs per annum on information resource building.
- Many publishers now are offering their products in electronic formats. They encourage the formation of consortia and accordingly offer consortia friendly pricing strategies.
- Information technology has enabled users to access online many of the research journals. Publishers of the journals offer concessional rates of their e-format journals subject to maintain status-quo of print subscription.

Based on the recommendations made by study group, the CSIR accepted the recommendations and decided to set up a consortium, 'CSIR E – Journals Consortium' for electronic access to journals.

Objectives

The main objectives of the CSIR E – Journals Consortium are:

- to provide CSIR S&T staff electronic access to world S&T literature to strengthen the facilities for pooling, sharing and electronically accessing the CSIR information resources;
- to provide access to world S&T literature to CSIR labs; and
- to nucleate the culture of electronic access with a view to catalyse the evolution of digital libraries.

Activities of Consortium

The following are the broad activities envisaged to be involved in carrying out the project:

- Identification of vendors
- Invitation of proposals
- Negotiation
- Signing of agreement
- Enabling access
- Training
- Payment to vendors
- Monitoring
- Usage statistics
- Analysis
- Reports

Roles and Responsibilities of NISCAIR

National Institute of Science Communication and Information Resources (NISCAIR formerly INSDOC), New Delhi is the nodal organisation of the Consortium. As nodal agency of the consortium, it performs the following roles and responsibilities:

- to collect the link-up fee from CSIR and release payment as per the contract terms and conditions to vendor(s);
- to make certification of bills;
- to receive and keep secret the passwords that are supplied by the publishers to the laboratories as well as NISCAIR;
- to co-ordinate training to staff of participating labs for E-journals access;
- to monitor the analysis of usage data and appropriate reports generation and use the report for strategic planning;
- to undertake various studies related to E-journals for planning, monitoring, etc.;
- to monitor complaints and access problems of the laboratories; and
- to maintain smooth functioning of the Consortium.

Resources available through Consortium

As a first step, CSIR entered into an agreement with Elsevier Science which is one of the leading publishers of S&T journals, to enable all its laboratories access to 1,200 odd electronic/online journals. Afterwards it started subscribing to e – journals from many publishers. At present, all 38 CSIR laboratories have access to 3500 e – journals of different publishers. In addition, the labs have access to about 1500 e – journals from Directory of Open Access Journals (DOAJ) which are free for every one. Thus, the consortium provides an opportunity for CSIR labs to have access to 5000 international reputed e – journals. The list of 11 publishers with whom the CSIR is entering into agreements is given below:

- Elsevier Science
- Springer
- American Institute of Physics
- Blackwell
- American Society of Civil Engineering
- American Chemical Society
- John Wiley
- Cambridge University Press
- Oxford University Press
- American Society of Mechanical Engineering
- Royal Society of Chemistry

Architecture and Access Mechanism

The CSIR E-Journals consortium follows three-tier architecture with the user at the centre. The implementing agency will be at level two and the e-journal publisher at level three. The schematic representation of the access mechanism is shown below:

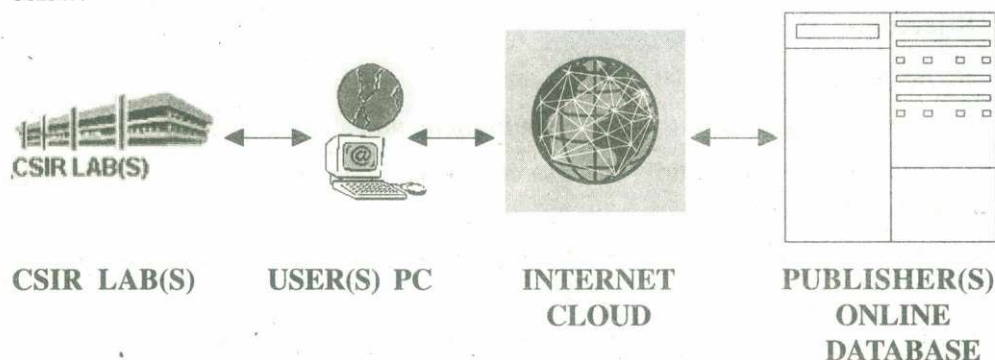


Fig. 14.1: Network Architecture and Access Mechanism
(Source: Prakash Chand and Mahesh)

14.3.5 IIM Consortium

The Indian Institutes of Management are premier national business management education institutions set up by the Government of India. They are independent societies governed by independent Board of Governors. The major objective of the institutions is to train young graduates to become professional managers. The IIMs are available at 6 places – Ahmedabad, Bangalore, Calcutta, Indore, Kozhikode, and Lucknow.

The concept of IIM Library Consortium was floated a few years back. Since the year 2000, the Librarians of all the IIMs had been interacting extensively on the possible resource sharing of the CD-ROM/Digital Databases being regularly subscribed to by them.

A pilot study was conducted in this regard on the CD-ROM/Digital Databases being currently subscribed to by the various IIMs and it was found that:

- ABI/Inform (Abstracts), ABI/Inform (Full-Text - Business Periodicals Ondisk - BPO) are being subscribed to by IIMA, IIMB, and IIMC respectively;
- Business Source Elite (BSE), the Full-Text journal service of EBSCO, is being subscribed to by IIMA, IIMI, and IIMK; and
- Econlit (Silver Platter) is received at IIMA and IIMK, and Econlit (Ovid) at IIMI.

The Librarians of IIMs discussed and deliberated in one of their meetings and resolved that:

- while doing this exercise, the information resources of any of the Institute(s) should not be affected in any manner, and shall ensure quality improvement and revenue saving to each Institute.
- it is high time for all IIMs to jointly approach publishers for journals and databases of common interest for better services and prices.
- they may approach publishers of CD-ROM Databases to begin with, as Consortia, for better pricing and services.
- eventually, other digital databases and journals shall also be covered by the Consortia programme.
- the proposal of IIM Library Consortium seeks the authorisation and guidance of the Heads of all the IIMs, to proceed further.

Based on the above, four of IIMs placed orders for databases such as BSE and Econlit and the rest two IIMs placed orders for ABI/Inform. Subsequently, the Directors of all IIMs in one of their meetings held in August 2001 approved the formation of IIM Library Consortium and encouraged the librarians to actively participate for mutual benefit.

Objectives

The objectives of the IIM Consortia are to:

- ensure among the IIMs, optimum utilisation and enhancement of the resources;
- minimise the expenditure by consortia based subscriptions to the commonly subscribed databases and journals;
- approach publishers of CD-ROM databases to begin with as a consortia for better pricing and services; and
- cover other digital databases and journals by the programme.

Resources Available through Consortium

In the case of journals, all the six IIMs put together subscribes to over 2550

scholarly titles of which around 1200 are duplications (overlapping titles). Among these, 33 titles are being subscribed to by all the IIMs. Having convinced on the dire need for journals consortia, major publishers such as Elsevier, Kluwer, Wiley, Blackwell and MCB University Press were approached and they all represented in the second meet which was held at IIM Bangalore in 2001. The end result has been highly praiseworthy, that over 740 E-journals IIMs are able to get online access, across all the IIMs, by paying a nominal additional amount.

The present information resource base of the IIM Consortium is as follows:

- Blackwell Hss Collection
- Capitaline
- Nexis.com+Corporate Information
- ISI Emerging Markets
- Kluwer Online
- Talyor & Francis
- John Wiley

14.3.6 HELINET

The Rajiv Gandhi University of Health Sciences (RGUHS) launched HELINET (Health Sciences Library & Information Network) Consortium, on the 15th of March 2003.

The importance and the role of quality medical journals in medical education are known. Moreover, in a survey conducted in early 2002, the colleges of RGUHS were spending enormous amount of money to get only about 150 journals each, and even among these 150, many were duplicates. This spurred the need for reducing the cost while making the core medical journals more affordable and easily accessible.

Objectives

The main objectives of the consortium are to:

- network the libraries in the colleges affiliated to the University to promote resource sharing;
- move these libraries gradually to digital main-stream; and
- bring all the libraries under HELINET for minimising the cost of acquisition and maintenance of learning resources and maximizing their utilization, among the faculty, students and researchers the colleges and institutions affiliated to the University.

Resources through Consortium

Under the HELINET scheme, the member libraries can get access to around 600 scholarly, international biomedical journals, from 24 leading publishers, at about one-third the price of their print subscription. Moreover, the member libraries can get all time access to the current journals as well as archives i.e. the back-volumes of journals for a period of 7-10 years.

The University has already spent Rs. 2 crores for establishing the consortium on a cooperative e-access model. For this purpose, the university has set up digital library infrastructure for managing and providing access to e-content.

Full Text E - Journals

- Elsevier's Science Direct
- Ovid Biomedical Collection
- Annual reviews - Biomedical Suite

Online Databases

- J-Gate Custom Content for Consortia (JCCC)
- J-Gate

Member Institutions

The following are the current members of the consortium:

- Adichunchanagiri Institute of Medical Sciences, B.G.Nagar - 571 448, Nagamangala Taluk, Mandya
- Al-Ameen Medical College, Athani Road, Bijapur - 586108
- Bangalore Medical College, Fort, Bangalore - 560002
- Shri B.M.Patil Medical College, Sholapur Road, Bijapur - 586103
- Sri Devaraj Urs Medical College, Tamaka, Kolar - 563101
- Father Muller's Medical College, Fr.Muller's Road, P.B.No.501, Mangalore - 575005
- Government Medical College, Irwin Road, Mysore - 570001
- Karnataka Institute of Medical Sciences, Vidyanagar, Hubli - 580001
- Kempe Gowda Institute of Medical Sciences, K.R.Road, VV Puram, Bangalore - 560004
- Jagadguru Sri Shivarathreshwara Medical College, Sri Shivarathreshwara Nagar, Mysore - 570015
- J.J.M. Medical College, Davangere - 577004
- Jawaharlal Nehru Medical College Library, Nehru Nagar, Belgaum - 590010
- St.John's Medical College, Sarjapur Road, Bangalore - 560034
- M.R.Medical College, Gulbarga - 585105
- M.S.Ramaiah Medical College and Hospital, MSR Nagar, MSRIT Post, Bangalore - 560054
- Sree Siddhartha Medical College, Agalkote, BH Road, Tumkur - 572107
- Vijayanagar Institute of Medical Sciences, Contonment, Bellary - 583104
- Dr.B.R.Ambedkar Medical College, Kadugondanahalli, Bangalore - 560045
- K.S.Hegde Medical Academy, University Road, Deralakatte, Mangalore - 574160
- Yenepoya Medical College, Deralakatte, Mangalore - 575018
- K.V.G.Medical College, K.V.G. Vidya Nagar, Kurunjibagh, Sulia - 574327
- Vyadehi Institute of Medical Science and Research Centre, Whitefield, Bangalore - 560066
- S.Nijalingappa Medical College, Bagalkot
- Navodaya Medical College, No. 6-2-139/5, Mantralaya Road, Raichur - 584102
- A.J. Institute of Medical Science, AJ Towers, Balmatta, Mangalore - 575002

Self Check Exercises

- 3) List out the members of FORSA.
- 4) Discuss the salient features of UGC - Infonet.

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit

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14.4 CONSORTIA IN OTHER COUNTRIES

Though there are hundreds of consortia in other countries, we shall briefly discuss a few of them, which are mentioned below, in this section:

- IDAL
- KERIS
- CONCERT
- CURL
- ICOLC

14.4.1 IDAL

Background of IDAL

The Illinois Digital Academic Library (IDAL) is currently an informally organised academic library consortium. This programme was inaugurated in August 1999 with a grant from the Illinois Board of Higher Education (IBHE). It evolved from an original idea proposed by the Council of Directors of State University Libraries (CODSULI). Planning and support for the initial grant was provided by the Illinois Library Computer Systems Organisation (ILCSO). IDAL started providing electronic resources to its members in February 2000. In the first year of operation, it was found that more than 2 million searches were conducted using these resources, and more than 1.2 million full text articles and monographs were used.

Objectives of IDAL

The objectives of the IDAL are to:

- build a collection of full-text and full-image electronic resources that support instruction, study, and research by students, faculty and staff in all eligible Illinois institutions of higher education.
- act on behalf of academic libraries in Illinois as consortial agent for the evaluation, selection, and provision of electronic full-text, citation databases, and digital image resources.

Salient features of IDAL

The following are some of the salient features of IDAL:

- It provides leadership and coordination in the selection, acquisition and delivery of digital text and images.
- It collaborates and coordinates with other Illinois academic consortia, including the Illinois Cooperative Collection Management Program (ICCMP), NILRC, and Illinois Library Computer Systems Organisation (ILCSO).
- It programmes complement, augment and extend the institutional service programs of Illinois' academic libraries.
- Its resources supplement existing print resources, create new subject strengths, and ameliorate current subject weaknesses for participating libraries.
- It takes full advantage of, and further elaborates, the extensive academic library electronic information infrastructure that has been created over the last twenty years with support from the Illinois Board of Higher Education, Illinois State Library, the Illinois Century Network, the Illinois regional library systems, and ILCSO.
- It maximises the purchasing power of Illinois academic libraries for digital library collections.
- It supports the growth and development of distance learning in Illinois.
- It coordinates the licensing of products and services, billing and fiscal management, coordination of the technical aspects of access to products and services.

scheduling and delivering training and documentation, and facilitating communication between the providers of electronic library products and services and participating IDAL institutions.

- It assumes consortial responsibility for monitoring, investigating and communicating information concerning the evolution and future directions of electronic library resources for academic libraries.

Membership

There is no formal membership structure. The program provides resources and services to more than 750,000 students and faculty. The Illinois Board of Higher Education (IBHE) subsidises IDAL's offerings for the benefit of the statewide academic community.

The criteria for eligibility to participate in the Illinois Digital Academic Library project are:

- The academic library must be affiliated with an institution of post secondary education recognized by the Illinois Board of Higher Education; and
- The academic library must be a member of the *Illinois Library and Information Network (ILLINET)*.

Approximately 180 academic libraries meet these criteria. They include public universities, public community colleges, private colleges and universities, specialized institutions, and for-profit educational enterprises.

14.4.2 KERIS

The Act of Korea Education & Research Information System was enacted in January 1999. KERIS was officially launched in April 1999.

Objectives

The objectives of KERIS are:

- to research on e-Learning related to education and research; and
- to develop the effective human resource development and efficient dissemination of information for the enhancement of national competitiveness in education and academic research.

Major Tasks

To accomplish the objectives, KERIS performs the following tasks:

- Improvement in the quality of public education and development of human resources through e-Learning support systems;
- Operation of EDUNET and RISS for the sharing and distribution of educational and research information;
- Revision of the metadata standardisation format KEM 2.0 to promote the sharing and distribution of educational and research information;
- Operation of NEIS to improve the work environment of teachers;
- Organisation and operation of the Digital Library Support Center in order to vitalize the operation of school libraries;
- Develop, secure, and provide educational content to improve teaching-learning methodology;
- Investigation and evaluation of the current status of digitalization of the education academy information, and research and support in the development of education policies;
- Support for the growth of the private education information industry through quality certification and e-Learning exhibitions; and

- Support for the digitalisation of universities and life-long education.

KERIS Activities

- Organisation and operation of the e-Learning system to reduce private tutoring expenses and improve public education;
- Support for development of creative personnel needed to lead a knowledge-based society in the 21st century;
- Support for the qualitative improvement of classroom lessons and the fundamental improvement of public education through the use of ICT;
- Management of user-centered knowledge and information resources through the Research Information Sharing Service;
- Organisation of the e-Educational administration service to enhance the efficiency and transparency of educational administration and the civil service;
- Support for the cyber-learning system which allows anyone access to education.

14.4.3 CONCERT

The CONCERT stands for 'CONsortium on Core Electronic Resources in Taiwan'. It was set up in 1998 to take advantage of the growing popularity of web-based full-text documents. It consists of members mainly from universities, colleges as well as research institutes in Taiwan. As the coordinator of CONCERT, Science and Technology Information Center (STIC) tries its best to fully exploit the economies from group-purchase and resource sharing. In the year 2002, CONCERT leased 22 international database systems, partly funded by the Ministry of Education and National Applied Research Laboratories.

Objectives

The main objectives of CONCERT include the following:

- To enhance sci-tech policy research and establish knowledge bank; major themes include critical national issues; and
- To establish national integrated information service mechanism.

Features of CONCERT

The following are some of the salient features of CONCERT:

- **To Sustain Academic Research Progress** - developing and integrating national information resources and introducing international information resources to foster the domestic research through our information service databases like CONCERT, ILL, etc.
- **To Support Policy-Decision Makers** - providing critical insights for governmental policy decision-makers by undertaking policy research of S&T development and value-added analysis, establishing the monitor system of manpower allocation in the S&T industry as well as performing information & communication security endorsed by the Executive Yuan of ROC.
- **To Facilitate Circulation of Industrial Innovation** - serving as a major dissemination gateway of knowledge innovation in support of cutting-edge technology research through taking part in nation-based nanotechnology programme, performing patent analyses, and offering technology transfer interface, and bringing about economic benefits as a result.
- **To Enhance S&T Cooperation Across Nations** - accelerating bilateral & multi-lateral collaboration via participating in the information activities worldwide, and introducing our research accomplishments throughout nations as so to upgrade our image.

International Cooperation

Cooperation with international Organisations is not just a means to acquire international resources; it has also opened more channels to disseminate the information about the national S&T activities and performance to the international arena.

As the coordinator of CONCERT, STIC has obtained memberships to a number of renowned information organisations such as:

- Association of Information and Dissemination Centers (ASIDIC)
- American Society for Information Science and Technology (ASIS&T)
- The European Association of Information Services (EUSIDIC)
- International Council for Scientific and Technical Information (ICSTI)
- International Federation of Library Associations and Institutions (IFLA)
- Japan Science and Technology Agency (JST)
- Japan International Science & Technology Exchange Center (JISTEC)
- Canada Institute for Scientific and Technical Information (CISTI)
- Korea Institute of Science and Technology Information (KISTI)
- National Technical Information Service (NTIS)
- National Library of Medicine (NLM)
- Asia-Pacific Economic Cooperation (APEC)
- European Science Foundation (ESF)
- Organisation for Economic Cooperation and Development (OECD)
- Center for Science and Technology Studies (CWTS)

14.4.4 CURL

CURL refers to Consortium of University Research Libraries (CURL) in the British Isles. This is one of the major consortia of European university libraries. CURL will make a difference for researchers by helping to build the Distributed and Hybrid Research Library of the future.

Objectives

The objectives of the CURL are to:

- increase the ability of research libraries to share resources for the benefit of the local, national and international research community;
- provide strong leadership to find research-centred solutions to common problems;
- influence change and provide a seedbed for innovative projects and services;
- provide practical tools for finding information;
- engage its membership to improve support for researchers;
- foster synergies through strategic alliances and collaborative partnerships that will benefit research support in the UK, Ireland and worldwide; and
- help to shape the wider debate at national and international levels.

Features of CURL

The following are some of the salient features of CURL:

The researchers of any discipline from any place will easily be able to:

- search, locate and request all resources, whatever their format, easily and quickly from the desktop;
- have quick and easy access to an increasing amount of electronic resources;

- have physical access to manuscripts, archives or printed items that have not been digitised and cannot be moved, wherever these are held; and
- have other printed items from outside their own institutions delivered to them efficiently.

Members of CURL

The following institutions are some of the members of CURL:

- Members of CURL
- University of Aberdeen Directorate of Information Systems & Services
- University of Birmingham Information Services
- University of Bristol Information Services
- British Library
- Cambridge University Library
- Cardiff University Information Services
- Durham University Library
- Edinburgh University Library
- Imperial College London Library
- John Rylands University Library, University of Manchester
- King's College London Information Services & Systems
- Leeds University Library
- University of Liverpool Library
- University of London Research Library Services
- Library of The London School of Economics and Political Science (LSE)
- National Library of Scotland
- National Library of Wales
- Newcastle University Library
- University of Nottingham Information Services
- University of Oxford Libraries
- School of Oriental and African Studies (SOAS)
- The University of Sheffield Library
- University of Southampton Libraries
- Trinity College Library Dublin
- UCL (University College London) Library Services
- V&A Museum
- University of Warwick Library

14.4.5 ICOLC

ICOLC refers to International Coalition of Library Consortia. It is a Consortium of Consortia, and first met informally in 1997. It comprises over 200 library consortia across the world and the Coalition represents thousands of member libraries worldwide. The Coalition serves primarily higher education institutions by facilitating discussion among consortia on issues of common interest. Additional information about the ICOLC can be found at <http://www.library.yale.edu/consortia>.

Activities of ICOLC

To accomplish the task, it performs the following activities:

- It conducts meetings to keep participating consortia informed about new electronic information resources, pricing practices of electronic providers and vendors, and

other issues of importance to directors and governing boards of consortia.

- The Coalition meets with members of the information provider community, providing a forum for them to discuss their offerings and to engage in dialog with consortial leaders about issues of mutual concern.
- It also maintains listservs and web pages for the benefit of its members.

Participating Consortia of ICOLC

A few consortia that participate on the ICOLC consortia listserv are given alphabetically below. The corresponding URLs are also provided so as to enable you to browse the websites to know their objectives, services, activities, guidelines, etc.:

Academic Business Library Directories (ABLD) <http://www.library.cornell.edu/abld/>
 Adventist Libraries Information Cooperative (ALICE) <http://www.asdal.org/alice>

The Alberta Library (TAL) <http://www.thealbertalibrary.ab.ca/>

Alliance for Innovation in Science and Technology Information (AISTI) <http://www.aisti.org/>

Amigos Library Services, Inc. <http://www.amigos.org/>

Anatolian University Libraries Consortium (ANKOS) <http://www.library.yale.edu/consortia/www.ankosnet.org>

Appalachian College Association Central Library (ACA) <http://www.acaweb.org/>

Arizona Health Information Network (AZHIN) <http://www.azhin.org/>

Bibliographical Center for Research <http://www.bcr.org>

Boston Library Consortium (BLC) <http://www.blc.org/>

Botswana Libraries Consortium (BLC) <http://www.califa.org/>

California Digital Library (CDL) <http://www.cdlib.org/>

Chicago Library System (CLS) <http://www.chilibsys.org/>

China Academic Library and Information System (CALIS) <http://www.calis.edu.cn/>

Commonwealth Scientific and Industrial Research Organisation (CSIRO) <http://www.csiro.au/>

Consortium of Ontario Libraries (COOL) <http://www.library.on.ca/cool/>

Consortium of Swiss Academic Libraries <http://lib.consortium.ch/>

Consortium of University Research Libraries — United Kingdom (CURL) <http://www.curl.ac.uk/>

Consortium on Core Electronic Resources in Taiwan (CONCERT) <http://www.stic.gov.tw/fdb>

Council of Australian University Librarians (CAUL) <http://www.caul.edu.au>

Electronic Library Network, British Columbia (ELN) <http://www.eln.bc.ca/>

Florida Center for Library Automation (FCLA) <http://www.fcla.edu>

Forum for Resource Sharing in Astronomy & Astrophysics (FORSA) <http://www.iiap.res.in/library/forsa.html>

Health Science Information Consortium of Toronto (HSICT) <http://www.library.utoronto.ca/www/hsict>

Illinois Library and Information Network (ILLINET)

Illinois Digital Academic Library (IDAL) <http://www.idal.illinois.edu/>

Indian National Digital Library in Engineering Science and Technology (INDEST) <http://paniit.iitd.ac.in/indest/>

Japan Association of National University Libraries, (JANUL) <http://wwwsoc.nii.ac.jp/janul/index-e.html>

KERIS (KERIS-LINK) <http://www.keris.or.kr/>
 Library Information & Resources Network (LIRN) <http://www.lirn.net/>
 Metropolitan New York Library Council (METRO) <http://www.metro.org/>
 Michigan Library Consortium <http://mlc.lib.mi.us/>
 National Library of Australia (NLA) <http://www.caslconsortium.org/>
 National Electronic Information Consortium of Russia (NEICON) <http://www.neicon.ru/>
 New England Law Library Consortium (NELLCO) <http://www.nellco.org>
 Ohio Library and Information Network (OhioLINK) <http://www.ohiolink.edu/>
 PALINET and Union Library Catalogue of Pennsylvania (PALINET) <http://www.palinet.org/>
 Queensland University Libraries Office of Cooperation <http://www.quloc.org.au/>
 Southern Universities Purchasing Consortium (SUPC) <http://supc.procureweb.ac.uk/>
 UGC-Infonet E-Journals Consortium (UGC-Infonet) <http://web.inflibnet.ac.in/econsortia/index.htm>
 University of North Carolina System (ULAC) <http://www.northcarolina.edu/content.php/libraries/ulac/index.htm>
 University of Texas System Digital Library <http://www.lib.utsystem.edu/>
 Virtual Library of Virginia (VIVA) <http://www.viva.lib.va.us/>
 Washington Research Library Consortium (WRLC) <http://www.wrlc.org/>

Self Check Exercises

- 5) Explain the objectives of IDAL.
- 6) Discuss the salient features of CONCERT.

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit

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14.5 SUMMARY

In this Unit, the basic concept of library consortium, its need, evolution, need, objectives, and advantages have been discussed. Emphasis has been laid on some of major consortia available in India, like INDEST, FORSA, UGC – Infonet, etc. An attempt has also been made to familiarize the learners with the Consortia available in other countries, like KERIS, CONCERT, CURL, etc. Therefore, it is hoped that the learners should have learnt the concepts of Consortia available in India as well as in other countries.

14.6 ANSWERS TO SELF CHECK EXERCISES

- 1) 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.”

- 2) The following are some of the advantages of library consortia:
 - 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;
 - Cooperative research and development in application of information technology enhances service and realises cost efficiencies;
 - 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 since the consortium acts as an agent for all member libraries and negotiates a purchase price that is lower than that available to individual institution;
 - Enhanced library services are provided with an emphasis on access to new electronic resources including online databases and services offered through the Internet and World Wide Web.
 - Expediting inter library borrowings at lower cost is possible.
- 3) The member libraries of FORSA are:
 - Indian Institute of Astrophysics (IIA), Bangalore.
 - Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.
 - National Centre for Radio Astrophysics (NCRA), Pune.
 - Nizamiah Observatory (CASA), Hyderabad.
 - Physical Research Laboratory (PRL), Ahmedabad.
 - Raman Research Institute (RRI), Bangalore.
 - Tata Institute of Fundamental Research (TIFR), Mumbai
 - State Observatory (S.O.), Nainital
- 4) The salient features of the UGC-Infonet are:
 - Scaleable Architecture to grow from Universities to affiliated Colleges.
 - Nation-wide Terrestrial Backbone using Fiber Optic links.
 - Integrated Satellite WAN supporting broadband and SCPC VSAT technology.
 - Comprehensive Network Management Systems for overall monitoring of the network, down to each and every device.
 - Linkage with other Academic and Research Networks all over the world.
 - Data security and virus protection using firewalls and Intrusion Detection Systems.
 - Dedicated Data Center for Web hosting, e-Journals and Mail Boxes.
 - Mirror sites spread all over the country for content hosting.
 - Broadband Multimedia and Video Channels for Distance Learning.
- 5) The objectives of the IDAL are to:
 - build a collection of full-text and full-image electronic resources that support instruction, study, and research by students, faculty and staff in all eligible Illinois institutions of higher education.
 - act on behalf of academic libraries in Illinois as consortial agent for the evaluation, selection, and provision of electronic full-text, citation databases, and digital image resources.
- 6) The following are some of the salient features of CONCERT:
 - **To Sustain Academic Research Progress** - developing and integrating national information resources and introducing international information

resources to foster the domestic research through our information service databases like CONCERT, ILL, etc.

- **To Support Policy-Decision Makers** - providing critical insights for governmental policy decision-makers by undertaking policy research of S&T development and value-added analysis, establishing the monitor system of manpower allocation in the S&T industry as well as performing information & communication security endorsed by the Executive Yuan of ROC.
- **To Facilitate Circulation of Industrial Innovation** - serving as a major dissemination gateway of knowledge innovation in support of cutting-edge technology research through taking part in nation-based nanotechnology programme, performing patent analyses, and offering technology transfer interface, and bringing about economic benefits as a result.
- **To Enhance S&T Cooperation across Nations** - accelerating bilateral & multi-lateral collaboration via participating in the information activities worldwide, and introducing our research accomplishments throughout nations as so to upgrade our image.

14.7 KEYWORDS

ILL	: Inter library loan (ILL) is the process by which a library requests material from, or supplies material to, another library. Material includes books, audiovisual materials and other returnable as well as copies of journal articles, book chapters, excerpts, and other non-returnable items.
Metadata	: Data about data. Metadata describes how and when and by whom a particular set of data was collected, and how the data is formatted. Metadata is essential for understanding information stored in data warehouses.
e-learning	: e-learning refers to using electronic applications and processes to learn. e-learning applications and processes include Web-based learning, computer-based learning, virtual classrooms and digital collaboration.
Internet	: A global network connecting millions of computers. More than 100 countries are linked into exchanges of data, news and opinions.
e-book	: An electronic version of a book which can be read through computer or any other device.
DELNET	: Developing Library Network (DELNET) has been established with the prime objective of promoting resource sharing among the libraries through the development of a network of libraries.
EDDS	: Electronic Document Delivery Service.

14.8 REFERENCES AND FURTHER READING

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