**RESOURCE SHARING AND NETWORKING**

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**Introduction:**

Resource Sharing in the libraries is a very important area of library management, which is not inly enhance the use and utilisation of library resources and services but also ensures optimum benefits to their users in the utilisation of library resources of all kind. Resources sharing and networking also plays a vital role in the effective functioning of modern libraries. As the technology grows continues to revolutionize the way information accessed and desseminated. Libraries have expanded their services to include not just physical resources but also digital resources and online materials. This chapter will explore the improtance of resources sharing and networking in the library, the technology and strategies used to facilitate these activities and the impact of these on library users. Resource sharing enables the libraries to work more effectively and efficiently.

**Objective of Resources Sharing:**

1. To provide positive effective on the library user in term of access of material or services.
2. On the library budget in term of providing more services at a least cost.
3. To improve the sharing of resouces among the member libraries.

**Factors of resource sharing**

**1 .** **Information Explosion:**

Tremendous growth of information has made it impossible for a library to attain self sufficiency. Exponential growth of library material available in the form of books, periodicals, research paper and non book materials, CD’s,DVD’s has made it beyond the control of a library to acquire all the materials which are being produced therefore resource sharing with other libraries is necessary.

**2. Readers demand:**

Due to increase in number of users of a library and their demand, advancement in the entire field of knowledge interdisciplinary approach in education have resulted in diversified demands by various section of readers.

**3. Limited Resources:**

Limited resource of libraries in terms of money to purchase all books, space and manpower. A single library unable to meet all the requirment of its users, due to raising cost of books and space constraints. Therefore it become necessary for sharing resources.

**4.Observation:**

The concept like “maximum number of books at a least cost” would make it impossible for a library to acquire, preserve and put to use all these materials to its readers out of its own resources.

**Components of Resource Sharing:**

1. **Agreement among library authorities:**
* The participating libraries should agree to share all resources they have.
* There should be a written agreement on resposibilities on acquistion.
* There sholud be an agreement on document description.
1. **Union Catalogue:**

Union Catalogue is a catalogue of information sources about books serials non-book marterials such as CD’s,DVD’s etc. and their availability of two or more libraries with in a region or country. It is very helpful for the location of a document and also help in inter library loan.

1. **Library Consortia:**

Library Comsortium is a group of libraries who partner with an objective to participate in a common activity or pooling their resources for achiving a common goal. It also provide access to qualitative e-resource inculding fulltext and bibliographic database to academic libraries at lower rates of subscription.

1. **Computerised Library Network:**

The use of computer and library networking have given resource sharing a bew direction. A library networkis defined as group of libraries or information centres that inter-connected to form a system with an aim to help each other with information needs of their users.

**Resource Sharing through Library Network**

**Introduction:**

A network consists of two or more computers that are linked in order to share resources such as printers and CD-ROM, exchange files, allow electronic communication etc. the computer network may be linked through cables, telephone lines, radio waves, satellites or infrared light beam. A technical definition would be that a device ornodes that can communicate with each other. The nodes may be computer, terminals, and workstation orcommunication units. They communicate over communication channels that can be leased from commoncarriers. These channels may use variety of transmission media including optical fibre, coaxial cables twistedcopper pairs or digital microwave radio signals.

**Definition of Network:**

Networking can be defined as a group of individuals or organization that are interconnected as a comman form through the computer. This linking includes a communication mechanism and many networks exist to express purpose of facilitating certain type of communication among their member organization.

In the context Library and Information resources and services, National Commission on libraries and

Information Science (NCLIS) defines network as “Two or more libraries or other organization engaged in a

common pattern of information exchange, through communication for some functional purpose”.

UNISIST-II working document defines Information network as a set of inter related information system

associated with communication facilities, which are co-operating through more or less formal agreement in

order to implement information handling operation to offer better services to users.

**Basic Requirements of Library Networking:**

* Library networking is essential to promote resources sharing available within a group of libraries in order to provide maximum information to users.
* Bibliographic tools like union catalogues and union lists based on the resources available in the participating libraries..
* Rationalization of acquisitions as well as decision to have one classification scheme in all participating libraries should be taken.
* Delivery of documents should be fast, either electronically, through fax or through courier or mail.
* The libraries should be willing in participation and should be willing to send professional staff for professional training. They should be willing to pool bibliographic records to the central place of the network.
* Libraries should have such activities like acquisition, cataloguing, classification, serials control, circulation, selective dissemination information (SDI), current awareness service(CAS), etc.
* The network should be able to recommend to participating libraries the type of hardware they need for their in-house functions and for networking purposes.
* All libraries should follow a standard Machine Readable Catalogue(MARC )format, a standard catalogue code like AACR-2, a standard thesaurus like Library of Congress Subject Headings (LCSH), etc. uniformly.
* Electronic mail and internet facilities should be available with the libraries with access to international database.

**Topologies of Network:**

The network topologies mean the structure or the arrangement of nodes for a network, where each computer or device in a network is called a node. The topologies or the structure of the network depends upon the purpose for which organization use it. The topology includes the physical arrangement or the geographic pattern by which the nodes are connected. A number of organizations should join the network that offers the facilities to make their functioning simpler, better and more cost effective.

A network can be made in one of the following five different topologies:

1. **Bus Network:**

In a bus network, each computer is connected to a single communication cable via an interface and every computer can directly communicate with every other computer or device in the network. This topology is commonly used along with the local area networks.

1. **Ring Network:**

In a ring network, several devices or computers are connected to each other on a closed loop by a single communication cable. A ring network is also called loop network. In the ring network, data must travel around the ring to each station in turn until they arrive at the required station. In a ring can be unidirectional or bidirectional. In a unidirectional ring, data moves in one direction only and in a bidirectional ring, data moves in both the direction, but one direction at a time.

1. **Star Network:**

In a star network, several devices or computers are connected to one centralized computer. The disadvantage of star network is that none of the computer can communicate with each other if the computer breaks down. If it is desired to transmit information from one computer to another, it can be done only by sending the details to the central computer.

1. **Tree Network:**

In a tree network, several devices or computers are linked in a hierarchical fashion. Therefore tree network is also known as hierarchical network.

1. **Mesh Network:**

A mesh network is point to point connection between every device in the network. Each device requires and interfaces for every other device on the network, mesh topologies are usually not considered practical.

**Types of Networks:**

* Local Area Network
* Metropolitan Network
* Wide area Network
1. **Local Area Network (LAN):**

In a Local Area Network, two or more computer are directly linked within a small well defined area such as a room, office building or a campus. It has relatively small number of user. They are widely used to connect personal computer and work station in offices to share resources and exchange information. LAN links a number of computers together to allow many people to use the same computer programs and share information. Each user can access the network from an individual personal computer to work station. It provides multiuser environment which allows sharing of data as well as expensive resources like printers and storage.

1. **Metropolitan Area Network (MAN):**

It is a network that is basically a bigger version of LAN. It is called metropolitan since it normally covers the area of a big city. Man can support both data and voice, and might even be related to the local cable television network. A MAN has just one or two cables and does not contain switching elements.

1. **Wide Area Network (WAN):**

A WAN is composed number of computer connected or distributed over a large geographical area.

It can be implemented with the help of private network and public networks. This network mainly used in telephone line and construct a network. Wide area networks are usually limited to use by the large organizations and government agencies due to high costs involved in building and maintaining them. The WAN has to primary function allowed people who are geographically separate to share information and to let them send information to each other.

**Conclusion:**

In a digital age, resource sharing and networking have expanded to include online platforms and digital repositories. Libraries can participate in interlibrary digital lending, where electronic material such as e-book, articles and audiovisual content can be shared between libraries. Open access initiatives, such as institutional repositories and digital archives, also allow libraries to share their own digital content with the broader academic community.

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