
Unit 15 □ Resource Sharing through Networks

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15.0 Objectives

The objectives of the Unit are to :

- Enumerate the concept of resource sharing
- Discuss the benefits and barriers of resource sharing
- Identify potential areas/functions for resource sharing
- Present an overview of resource sharing tools

15.1 Introduction

Consortium, network, and cooperative are the terms used to address the organizational arrangements for achieving a variety of resource sharing objectives. It is apparent that no library can provide all of the materials needed by its users. It is absolutely necessary to share resources among institutions. Internet provides convenient access to most library catalogues and national bibliographic databases with location information. This has facilitated interlibrary loan activities. New breakthroughs in networking, improvements in electronic transmission of data make resource sharing

a viable alternative. Automation has greatly accelerated the growth of resource sharing. As access to resources improved and the ability to request materials was streamlined, resource-sharing activity skyrocketed. Resource sharing is a well-developed concept in libraries of advanced countries for several decades. However, libraries in India are reassessing and reorganizing their collection development goals and service strategies, as they make the painful transition from the affluence to the austerity.

15.2 Concept

Resource sharing is a concept, which has developed to include many cooperative activities between libraries and other stakeholders. Interlibrary loan continues to be the mainstay of resource sharing. However, union catalogue development, cooperative cataloguing, cooperative reference, cooperative collection development and joint storage of material are all components of Resource Sharing Strategy.

Resource sharing is comprised of transactions by which a library makes its materials or copies of its materials available to the clientele of another library upon request. "Materials" are specific, identified items in any format in library collections, including returnable items (e.g., books and videocassettes) and nonreturnable items (e.g., photocopies and faxes). Resource sharing should at least include :

- Inter Library Loan/Document Delivery
- Reciprocal Borrowing
- On-site/Remote access to reference/information services and collections, and
- Reference and research support and collaboration among library staff.

15.3 Impetus for Resource Sharing

Resource sharing and interlibrary loan are adjunct to, not substitutes for, collection development in individual libraries. The exchange of materials between libraries is an important element in the provision of library service and it is believed to be in the public interest to encourage such an exchange. Selected impetuses are :

- Pressure for enhanced collaboration :
 - Information explosion : individual library cannot provide everything
 - Rising costs of library materials without increasing budgets
 - Potential of information technology
- Library provision not a key issue for most institutions

15.4 Benefits of Resource Sharing

The economic benefits of resource sharing may be summarized as follows :

- **Cost** : No library can afford to acquire all needed materials due to high procurement costs, and cost of processing, servicing, and storage (space and furniture do cost a lot)
- **Speed** : Application of technology ensures effective and efficient delivery of resources at the point of use. Thus, it will reduce the time needed for development of technology etc.
- **Rationalization of investment** : Cooperative acquisition ensures higher availability of resources among the participating libraries with same investment for procurement etc.
- **Reduced Overhead Cost** : Shared cataloguing using network resources (copy cataloguing etc.) reduces expenditure for information processing.

15.5 Barriers to Resource Sharing

The resources that could be shared between libraries are space, collection (development and use), staff (development and sharing), and technology. The barriers to resource sharing may be summarized as follows :

- Reluctance to give up ownership (size matters!)
- Reluctance to take risks (e.g. to divert spending)
- Reluctance to compromise (e.g. on specification for system)
- Fear (on the whole unfounded) of swamping
- Reluctance to provide professional leadership
- Discovery still a barrier
 - Resources remain uncatalogued
 - Catalogues remain unconverted
 - No single/virtual single national catalogue
- Need for more flexible approaches to e-licences for consortia working
- Widespread support for further digitisation of resources, to be shared
- Need for further work on digital archiving
- Almost all libraries have internal focus.
- Lack of fund and expertise for library automation
- Long distance between participating libraries and poor communication facility.
- Lack of exposure in comparative and international librarianship

15.6 Classification of Resource Sharing Networks

Although there is no operational example of resource sharing network, which includes all possible library functions, there are now in existence so many cooperative resource sharing activities and/or networks that it has become possible and instructive to classify them among a number of different dimensions, such as :

- Housekeeping Operations
 - Acquisition
 - Processing
 - Storage
- User Services
 - Reference
 - Document Delivery
- Type of libraries
- Subject matter
- Type of materials
- Forms of materials
- Nature of cooperative arrangement

The resource sharing networks may also be classified on the basis of distribution of resources. They are :

- Equally Distributed Networks. Only participants libraries of equal status can use the materials
- Star Networks : One participant library holds substantial materials. Resources to be utilized by other members of the network
- Hierarchical Network : Unsatisfied needs are forwarded to next bigger/higher resource centre. Higher resource centre should not be approached at first.
- Mixed Networks : Any combinations of above-mentioned networks

15.7 Resource Sharing Agreements

There are several basic agreements among libraries that must be developed if resource-sharing system is to be functional. It should be based on the premise that resource sharing among member libraries is in the public interest and should be

encouraged; interlibrary borrowing is an integral part of collection development, not an ancillary option; interlibrary lending is vital to the success of every library's ability to borrow needed materials. This agreement should include :

- Definition
- Purpose : Identify the objectives including service types and standards
- Scope : Explains the types of materials and areas of activity should covered by the resource sharing arrangement.
- Responsibilities of the Requesting library
- Responsibilities of the Supplying Library
- Retention Policy : Weedout policy of the each participating library must be satisfy needs and scope of the network.
- Classification of Users : Each member library has an obligation to serve its primary customers as a first priority. Primary customers are defined as those individuals affiliated with a member library as a student, faculty, employee and/or resident of a geographic community etc. The library mandated to serve each group of primary customers would be referred to as the "home library". A client using a library other than his/her home library shall be designated a secondary user.
- Protocols : Protocols for access to member collections will be developed to encourage balance in the demands on particular institutions and to avoid overburdening any one institution. Member institutions will encourage their primary customers to fully use the resources of their home library prior to accessing other member libraries.
- Expenses : Some charges for resource sharing activities may be applied. However, resource sharing among members shall not be considered a revenue generating activity.
- Confidentiality : User confidentiality shall be protected and the exchange of information about customers limited to that which is required to provide service.
- Violation of the Agreement : The financial agreement should permit individual libraries to withdraw, but sufficiently constraining to avoid disturbances of the system.

However, there should be agreement on acquisition policies, both to ensure consistent development of holdings and to avoid redundancy. There should also be agreement on bibliographic control. Best is standardization, so that users of each

participating library have a common means of accessing the catalogue/bibliographic control tools of others. Funding should be based on an obligation for long-term support to permit the benefits to develop. The financial agreement should permit individual libraries to withdraw, but sufficiently constraining to avoid disturbances of the system. This will also ensure commitment of parent institution.

15.8 Infrastructure of Resource Sharing

Effective resource sharing presupposes an infrastructure that permits users to discover materials in both print and electronic formats. In past, most of surrogates to information resources were manually developed. Naturally, the availability of such tools for document discovery were limited and localized. Hence, resource sharing was limited to selected resourceful libraries. Many libraries were unable to participate and/or take benefits of networks.

Uses of computers, increasing conversion of library catalogues, web access to document discovery tools, low cost communication facilities (email/Internet), and electronic document delivery system has revolutionized resource sharing worldwide. This ability to link resources at the user's desktop using facilities of full-text database will make possible a very different way for the individual researcher or practitioner to access information. There are various tools available, which help in document discovery and/or document delivery. Two major approaches are union catalogue and Z39.50 based distributed search systems. These two approaches should be considered complementary rather than competitive. Technologies to create linkage between the bibliographic apparatus of catalogues and abstracting & indexing databases and primary content in electronic form, such as the new Serial item and Contribution Identifier (SICI) standard are also key elements in the infrastructure to support resource sharing.

Open URL is a type of URL that contains resource metadata for use primarily in libraries. National Information Standards Organization (NISO), has developed OpenURL and its data container (the ContextObject) as international ANSI standard Z39.88.

The OpenURL standard is designed to support mediated linking from information resources (sources) to library services (targets). A "link resolver", or "link-server", parses the elements of an OpenURL and provides links to appropriate services as identified by a library. A source is generally a bibliographic citation or bibliographic record used to generate an OpenURL. A target is a resource or service that helps

satisfy user's information needs. Examples include full-text repositories; abstracting, indexing, and citation databases; online library catalogues; and other Web resources and services. Pubmed and MathSciNet and others provides similar facilities, which not only facilitates resource discovery but also provides new means for resource delivery.

A&I databases and other secondary information resources are now common services offered to library users alongside access to catalogues. They are available from a wide range of sources scattered across the network. Increasingly, technologies like Z39.50 are enabling consistent user interfaces to wide ranges of A&I databases accessible through the network. Many of these A&I have coverage that overlaps with other competing/complementary A&I databases in complex ways. While most library users today search databases sequentially, there is growing need for interfaces that will consolidated records retrieved from multiple A&I databases into a logical union A&I databases. The characteristics of such a consolidation process are highly dynamic and are likely to be based on distributed search approaches than on traditional union catalogue style consolidation. It is interesting to note that some of the commercial search services, such as DIALOG have offered such capabilities for consolidation of records from multiple A&I databases. While key standards to support linkages from A&I databases to primary content are now coming into place, actual implementation of such linkages is relatively new.

E-content suppliers have added value to resource delivery mechanism. OCLC offers a number of outbound links : OpenURL, netLibrary, infotrieve, JSTOR, online booksellers. It's important to show users all the options, e.g. it's available online, it's available at home library, it's owned by home library but it's not available. Reduce the number of options the user has to process.

15.8 Resource Description in the Digital Age

Resource description, known more familiarly within the library community as cataloguing or indexing, is undergoing intense scrutiny with the rapid proliferation of and access to, digital resources. There are many initiatives addressing a range of issues : the need for and definition of, a basic set of metadata elements; the examination of library cataloguing objectives and records structures; persistent addresses for resources; and the proposal for a data registry to facilitate interoperability among metadata schemes. The importance of a framework for resource discovery created through formal resource description is reiterated.

15.9 Resource sharing in a virtual library environment

Resource sharing in the sense of sharing printed documents is largely based on scarcity of financial resources, which resulted in reductions in the range and depth of information resources individual libraries can make available. Traditional co-operative projects do not offer a real solution to the problem of deteriorating collections. Information technology has a profound effect on resource sharing activities. A collection is no longer bound by the structure of four walls. The library's primary task has always been to select, stabilize, protect, and provide access to relevant and representative information resources. The *collection* function, however, is expanding to include a *connection* function. The virtual library concept can be seen as a model for resource sharing. The three major components of resource sharing are : bibliographic access, interlibrary lending, and co-operative collection development. A new facet of resource sharing is the development of joint licensing agreements that permit consortia of libraries to share responsibilities and costs of providing access to electronic resources.

In the electronic environment most electronic information available commercially relies on licensing for access by libraries. The combined buying power of a consortium has a better chance than do individual libraries of persuading database providers to alter unacceptable terms in addition to lowering their prices.

Traditional co-operative collection development seeks to rationalize and distribute responsibility for acquiring little-used specialized publications. Shared approaches to licensing tend to focus on high-use high-demand databases which all or most members of a consortium wish to make available. The ability to provide immediate access from anywhere makes it far more shareable than the peripheral material that was the traditional object of co-operative collection development.

15.10 Copyright in Networked Electronic Publishing

The publication of scholarly works in a networked electronic environment presents many opportunities for solving some of the problems that currently exist in the print world. At the same time, copyright law, a form of legal protection developed primarily for printed works, has been used to create stumbling blocks both for faculty authors and their institutions. This has occurred because publishers have required a transfer of copyright to the publisher as a quid pro quo for getting the work published. New models of copyright ownership and management can be developed for electronic

publishing of scholarly works and research results that will provide greater control to the faculty author, ease the distribution and permissions process for the use of copyrighted works in teaching and research, and ultimately will reduce costs to universities which currently must repurchase faculty-produced works from commercial publishers.

15.11 Open Access Initiative

The Open Access movement seeks to make scholarly, peer-reviewed journal articles freely available to anyone, anywhere over the World Wide Web. There were some very significant developments in the area of Open Access (OA) in 2004, including statements by major fund providers in support of Open Access. There are now so many Open Access scholarly journal articles freely available that it is now essential for libraries to be aware of and use the resources and related tools. Libraries can provide more resources faster for users by supplementing paid resources with ones that are Open Access.

Library resources, such as link resolvers, are beginning to incorporate Open Access materials and web searches for Open Access materials. For example, the researcher software suite includes Open Access collections along with subscription-based resources in the CUFTS journals knowledgebase, and a web search for an Open Access copy of an article in the GODOT link resolver. SFX also incorporates Open Access journals. After exhausting more traditional resources, interlibrary loans staff are beginning to include Google searching in their workflow.

References and Further Readings

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15.12 Exercise

1. What is resource sharing?
2. Examine various areas of activities that can benefit from resource sharing.
3. Discuss barriers and impetus of resource sharing.
4. Describe resource sharing in virtual library environment.