

Networking and Consortia Management Techniques

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ABSTRACT

A single library has limitations of maintaining books/documents/journals and other materials demanded by its client or users. To overcome these types of problems, cooperation among the libraries was initiated and a new concept "Library Consortium" came into existence with a wide coverage. The paper describes the concept of library consortia, networking and consortia management techniques and future of consortia efforts.

Keywords: Networking, library consortia, consortia management, OCLC, e-journals

1. INTRODUCTION

The development of consortia is the outcome of the desire for resource sharing. The global prime example is OCLC (Online Computer Library Centre). OCLC is the leading global library cooperative, helping libraries to serve people by providing economical access to knowledge through innovation and collaboration. Others like Virginia's VIVA, Ohio's OHIOLINK, etc. are newer consortia on the scene having one common goal like pooling their collective financial resources to increase greater economic control over their marketplaces.

An article "Universal library: A plea for placing any desired book within the reach of any person wishing to make reasonable use of same", published in *Public Library* in 1905, depicted a picture of what the

library networks and digital libraries are attempting to achieve today. The ultimate vision of resource sharing through networking of libraries poses a completely digital environment in which the user identifies the required resource in electronic form through a comprehensive system of metadata and then simply connects to it without knowing where it resides. This seamless access is possible by integrating the resources, services and functions of multiple libraries through a high degree of collaboration.

The origin of collaborative activities among libraries can be traced back to the last quarter of the 19th century. For about one hundred years, these programmes centered around printed materials. Several such initiatives survived and flourished while a few died. Nearly a century after Melvil Dewey wrote on cooperation, library network stepped into the electronic era through online cataloguing system.

The extreme success of cooperatives such as OCLC and its relevance till date underscore the need of appropriate strategies for the survival and success of networks. Such strategies are required primarily for the organisational development of the networks and selection of relevant services to be offered.

The mode of delivery and access to the information has been evolving in a new direction, over the past twenty years. For last few years, through the ubiquitous web, users seem to have acquired a new power to reach the information directly. Old programmes such as cooperative acquisition have been extended to group purchase of site license by the consortia. Consortia/networks are also engaged in producing virtual union catalogue on similar or disparate systems using Z39.50 protocol and advancing the service further by introducing client initiated borrowing. In all senses, the distance between the user and his required information is gradually decreasing. As libraries are facing new challenges for information management, in the gradually evolving digital environment, library networks are re-orienting their functions to meet these new challenges.

The need of resource sharing through networking of libraries, in our country, does not require any special mention. Several initiatives have been taken, over the last 15 years, by various agencies, to establish/coordinate networking activities at various levels. There have been a few attempts over the years facilitating resource sharing among Indian libraries. The National Union Catalogue of Current Serials in India (NUCCSI) of INSDOC has been a good source in this direction. However, it needs little more effort in updating. A few city-based networks like ADINET, BONET, CALIBNET, DELNET, and MYLIBNET and PUNENET and the national level INFLIBNET are developments in library cooperation. The DELNET provides access to good number of databases and union catalogues of both books and journals.

But success in this area is not commensurate with the need. On the other hand, access to electronic journals has drawn wide interest among the libraries. Libraries

are banding together to get maximum benefits for consortia purchase of such electronic publications. Various initiatives have been taken by different government agencies to facilitate group purchase activity. But networking programs must not overemphasise the buying power only and we must strive to ensure that a full-fledged networking environment settles in all dimensions. Consortia do not exist in air. Successful consortia exist to expand further the mission of member-institutions by strengthening them. With this objective, it is very relevant to have a look at the strategies and techniques adopted by the networks elsewhere and the type of strategies that will be relevant to countries such as ours.

2. CONSORTIA GOALS

The consortia being an association of like-minded libraries and in the present context to provide access to books, documents, journals, e-journals and databases. It can have its own structure of governance and can act as a corporate body on behalf of all the members with set goals and benefits mentioned below:

- ✘ Increase the access base,
- ✘ Rational utilisation of funds,
- ✘ Ensure continuous subscription,
- ✘ Qualitative and quantitative resource
- ✘ Avoiding price plus models, i.e., pay for up-front products, not for research and development,
- ✘ Enhancing the visibility image of the library,
- ✘ Improve existing library services,
- ✘ Harness developments in it,
- ✘ Cost sharing for technical and training support,
- ✘ Increasing user base—access from user's desktops of users.

A library consortia formation can be at local, state, national, and inter-institutional levels for making the resources and services available both within the premises of members and outside for the benefit of members. There

are a number of basic issues that consortia members should be aware of, like number of simultaneous users, number of participants in the consortium, security methods, pricing formula, negotiation for consortia, which may differ according to the setup, etc.

3. FORMATION OF A CONSORTIUM AND ITS ELIGIBILITY CRITERIA

Eligibility criteria has to be framed for the libraries to participate in a consortia to achieve a common objective. An organising body is necessary to be formed from each library and among them one acting as a Chairperson on rotation basis to lead the consortium. The organising body will streamline the activities of participating library and send recommendations to the top management of participating libraries for implementation to provide, user service, better collection development, emerged economic concept in relation to library affairs, efficient dealings with the publisher and development of the human resources.

One of the vital activities of the organising body is to take decision on the following financial aspects:

- ✂ Whether consortium funds be created to subscribe the core journals in multiple copies at a discount price,
- ✂ Controlling the fund and to decide the limit of contribution from each library,
- ✂ Whether the participating libraries, to whom the responsibility to negotiate with some publishers are vested by the organising body, will send remittance to the publishers for multiple copies from its own fund and transfer fund subsequently among the member libraries, and
- ✂ Maintaining a standard procedure/guidelines to avoid any adverse remark from the external/central audit.

As per the guidelines framed by the organising body, each individual library will prepare a list of titles for resource sharing

based on the requisition from the users and may also initiate to contact a group of publishers for negotiation/discounts. All the member libraries under library consortia must extend cooperation to make it a total success. Preparation and finalisation of the list of core journal titles to be subscribed by all libraries as per the existing demands of the users and the union list of titles should be covered under resource sharing programme. This vital activities should be undertaken with a cooperative effort. The Council of Scientific and Industrial Research has come up under one umbrella of consortium with ELSEVIER Publisher where it is able to access full text of 200 journals along with many other convenient links on *Science Direct Database*. At the end of every subscription year, activity of the consortium must be evaluated to overcome the shortcomings, if any.

4. RESPONSIBILITIES OF MEMBER LIBRARY

Every member library of the consortia should share the following responsibilities:

4.1 Collection Development

It is the foundation of efficient services for every library irrespective of its size and type. Collection may be print-based or digital. Print-based collections will be dominant in many disciplines for at least a decade, but the increasing availability and cost of digital materials may account for half or more of total acquisition budget in the next five years. Coordination expansion and strengthening of collection can be planned by a group of libraries in consortium-based relationship to avoid duplication, unnecessary blockage of space and misuse of funds.

4.2 Negotiation of Group Pricing

Every year the cost of journals, books and electronic resources goes up. The funds allotted to purchase the required material are not sufficient. Traditionally journals are published in printed form but are available in electronic format also. Renowned publishers like Academic Press, Elsevier, Kluwer, John Wiley, ACS, etc., can be contacted to negotiate

for a discount rate for procuring printed journals and access of online documents in India as are being availed by the consortia of other developed countries.

4.3 Standard Resource Sharing

With the preparation of a core list of subscribed journals, the participating libraries in addition have to prepare a list of periodicals for resource sharing.

4.4 Development of Union Catalogues

Preparation of union catalogues which reflect the list of current periodicals subscribed by all the participating libraries could be very useful. Each participating library should take the responsibility to prepare union catalogue on their turn. It would be very useful to develop a resource database to make total holdings available by every participating library. Participating libraries should have individual Web page to reflect the resources available.

4.5 Document Delivery

All the participating libraries should allocate e-mail identification to receive the requests at one place and each library will make an agreement to attend this request.

4.6 Strengthens the Communication System

Networking among the participating libraries and upgradation of communication system is very much essential for easy and early retrieval of resources.

4.7 Conducting Training Programme

A library's success depends on its talented and dedicated staff. To prepare and develop a work force ready to cater best services to its users each participating libraries should give importance to training and reorientation of the staff. Staff members should be allowed to visit other libraries to make themselves conversant with the new concept, ideas, and procedures.

5. ORGANISATIONAL MODELS OF NETWORKS/CONSORTIA: A STATIC APPROACH

Right selection of organisational model brings requisite strength for the survival of any organisation and so is the case for library networks. A wide variety of consortia exists today all over the world; each being shaped by a number of cultural, political and financial needs and factors. These range from rather very simple to very complex organisations. The predominating patterns that are found in the nature of the consortia are:

Loosely-knit federation: Characterised by the voluntary participation of member libraries and running without any central staff or funding. It has low overheads but at the cost of a satisfactory level of return. Without a central authority there is no or little group purchasing power.

Multi-type/multi-state network: Covering heterogeneous members with respect to the programme, client and administrative structure.

Tightly-knit federation: May have a sponsoring agency and a focussed membership. Some dedicated staff coordinates the programmes but they do not really control the programme. The funding from the parent institutions may be supplemented by some external support.

Centrally-funded statewide consortium: It has a central funding, which augments what each member can purchase from their own fund. The central agency secures the contract and pays a substantial part of the cost. Members jointly agree to purchase items based on the shared interest. Separate staff is available for carrying on the programmes and the central administration has a role in formulation of programmes and policies. With a central source of dedicated funds, member libraries have more of an incentive to collaborate than with any of the other models.

Most of the existing library networks can be identified to have one of these characteristics. In this taxonomy, buying power has got an emphasis and hence the source of funding becomes a pivotal point as it is

directly related to buying power. Obviously, the centrally funded consortia can have a large pool of funds and many libraries are willing to put up with such a structure, if economic benefit is high. Ability to make a pool of resources is an important issue as evinced from a case of VIVA (The Virtual Library of Virginia). VIVA, for example, realised \$5 million in financial benefits during the first year (1994) only by purchasing resources as a consortium.

But overemphasising buying power implies limited vision of the growth of the organisation. Strategy of development of network, on the notion of appropriation of power through central funding is static in nature. In such a set up, members do not feel solidarity with others. Hence spreading the network culture, where it does not exist, is neglected as each member thinks that it is someone else's responsibility. On the other hand, when members commit their own fund, return in a most beneficial way becomes a target, which leads the members to engage in a business like practice and behave in a responsive and flexible manner. This confirms the adage that "there is a world of difference between paying and being paid."

In addition, in the countries where collaborative activities are not very strong, such models as mentioned above may not be conducive primarily because it does not ensure simultaneous growth of the members and the network. In these models, the growth and performance of a network are measured in terms of increase in funding from central agency, number of site licenses purchased, number of organisations brought under the membership, etc. The benefit of the member is measured in terms of amount saved through group purchase. The utility is measured in terms of number of searches conducted, pages downloaded, etc. Importance of such data is undeniable. But such data does not indicate how much the library has advanced itself using the network. The issue of strengthening of the member libraries is to be factored in the developmental strategy, for overall success of networking.

A network is as strong as its weakest member. Programmes such as union database, virtual union catalogue, facility to provide client initiated borrowing demand a certain degree of maturity of the members so that each can play an active role and interact with other members on the same terms. Issues such as expectation of member libraries, their strength and weakness are to be considered to adopt meaningful and yet flexible programmes. Only incremental and developmental structure of a network can foster simultaneous growth of a network and its member libraries.

6. DEVELOPMENTAL MODEL FOR NETWORKING

Consortia models are not well-defined and vary depending upon types of participating libraries, parent organisations they belong to, subject areas they cover, purpose of coming together, and so on. Consortia could be a club of highly decentralised/centralised organisations. The characteristics of consortia model are also influenced by other players like publishers and vendors. Highly decentralised models suffer due to non-availability of common agenda, no external funds, central sponsor and central staff. On the other hand, highly centralised models overcome these lacunae and also get maximum discounts. Participant's oriented models may be a group of organisations of a particular geographical location, a discipline or the ones from same parent organisation. Purpose oriented models may serve to give access to e-Journals and other contents, avoid duplicate acquisitions or train library personnel. Client oriented models could be according to educational background like technical and professional.

Members of a consortium may belong to different parent organisations, following different administrative rules. The subject areas covered geographical location and user categories are other variations. The other players in the game like publishers, aggregators, vendors, subscription agents and document delivery centres may have their own policies. As a result one has to look into number of issues, be it strategic or technical or practical. In an ideal situation, all members should

contribute to the network according to their respective capacities. The aim is to make each library play an active role in the newer areas of access and knowledge sharing instead of remaining merely an instrument for knowledge acquisition or passive receiver of services. Termed as knowledge economy model by Owen and Wiercx, such networks should be both sensitive to unique local condition and flexible in their application. The networks should develop hierarchically, from simpler to complex and from stand-alone to mutually integrated organism. In the total life cycle, a network may be in one of the stages as enumerated below:

6.1 Networked Library Stage

At this stage, the stress is on making individual libraries achieve the highest level of integrated network services internally. Members should have specific objectives and should put them in the context of an ideal situation. Three components, namely functions, systems and processes should be integrated in such a way that resource discovery within the system becomes easy for the end-user. The underlying principle here is that a network or partnership with external agency is not a way of avoiding responsibility, on the part of a library, in the area of collection development, providing bibliographic control and access services. The library itself as a network creates a culture for collaboration within the system and thus becomes capable of participation in external collaboration from a position of strength.

6.2 Cooperative Network Stage

In the second stage, the strong services of a group of networked libraries are offered to other members. This is the starting point for external collaboration and it also promotes efficient use of resources on a wider scale. At this stage, some of the networked libraries function as servers. Servers serve their own users as well as the user community outside the parent organisations. Servers should be generally domain-specific and within the domain they may provide full range of services such as resource description, discovery, storage and user support. In small countries, such

servers can undertake the responsibility of offering service at national level. But for the large countries, a group of servers in a specific domain may offer such services at the national level. Gradually, these servers can acquire infrastructure as well as databases and site licenses related to the domains and offer services to other libraries on par use basis. Some libraries are purely recipient in nature. The domain in which such libraries receive services from servers, and are not to be developed full scale within the organisation though such libraries should be fully networked. But some libraries serve both as server and client as they may offer services to others in one domain and receive services from other servers of different domains.

6.3 Knowledge Environment Stage

This final stage stresses more on user-oriented perception of the network and not on the way systems and functions are to be organised. While the previous two steps look at how cooperation can improve specific functions in the system, this model attempts to improve service through cooperation to meet the full range of need of the end users. The end-users are allowed to have access through any member, to the entire range of services, offered by the cooperative.

German and Cullen have named these three stages as initial, intermediate and developed state. Table 1 depicts the features of these three stage developmental model attuned to India.

Wide geographical dispersion of libraries, varying degree of automation and networked libraries in India require developmental model to be further attuned to Indian conditions. The system should be developed in such a way that the libraries at all levels, including those which are still operating in conventional mode can avail themselves of some benefits from the entire system. To this end, a dual strategy should be adopted to advance both the networked library stage and cooperative network stage simultaneously. To implement such dual strategy, the networked library stage and cooperative network stage should

Table 1. Functions of library networks at different stages

Functions	Initial stage	Intermediate stage	Advanced stage
Resource acquisition	Printed documents CD-ROMs, some dial-up connections	More offline e-resources, access by networked workstations	Full remote access to resources, dedicated Internet links, most material in e-format
Resource description	Manual cataloguing, Some shared systems (like OCLC)	Catalogues supplemented by resource lists of networked materials	Integrated resources, discovery system, metadata used comprehensively
Resource discovery	OPAC on PC bibliographic data describes mainly printed resources	Local e- and networked resources included in OPAC remote catalogue access e-mail delivery	Full network access to all internal and external e-resources, integrated resource discovery system
User access	On-site limited delivery	Users can access system offering some help	Full on site and remote access
User support	Library staff give face-to-face service	e-guide to library e-mail queries	Human support + full computer-assisted support for information discovery and access process

act in a feedback mode. The fully networked libraries within a geographical region should make a handholding to form a cooperative. Unless there is a strong similarity in domain, such handholding should be restricted within a geographical region. Within the cooperative, strongest libraries should be identified as servers. However, server libraries need not be restricted to subject domain only. Thus, to a cooperative there can be domain-specific servers in the areas such as social sciences, health science along with servers offering online cataloguing, ILL, etc. A nodal agency within a geographical area can act as change agent and switching centre for libraries, within that area, which are not yet fully networked entities. These nodal agencies and domain specific servers, from all the regions across the country should be linked to facilitate rapid spread of support to develop networked libraries. To keep the initial cost down, such a nodal agency should be within an existing organisational set up.

Some of the existing networks can also play the role of nodal agency. In the long term, a group of servers in a particular subject domain can offer what can be termed as service at national level. These servers can form the backbone for such a consortium as INDEST and can obtain infrastructure and site license to provide services for others on par use basis. A question may raise here on whether the concept of user license will

permit such usage? While attempts are being made to arrive at the definitions of the terms like fair use, user license in digital environment, servers should define their user base. But it should also be noted that the issue of fair use, user license are getting new definition in this electronic era.

Hence, the servers have to look for the proper definition of their user base. Recipient libraries will be of two kinds. The libraries, which are already moving towards networking internal components belong to one group. Another group consists of libraries intending to continue in the manual mode for some more time. The libraries of this second category may avail themselves offline catalogue card, ILL service, database searching facility through some designated servers. Thus, a small group of libraries, located within a region, should not only take care of their own need but they will also cater to the needs of the less privileged. As the records will come from the nodal agency, in case of services like offline catalogue card, there should be a record identification number for each record. When such recipients will decide to go for automation, they can simply get machine readable data once more from the agency by ordering through the record identification number. Some of the recipient libraries, over a period of time, will become capable of being placed in the cooperative networks and thereby increasing the strength of the cooperative. However,

libraries of this category have to show distinct signs of progressing towards networked libraries.

This approach of network development is based on the premise that development and evolution are keys to robust contextually responsive partnership. Libraries enter into the systems at one point and move along a continuum, ending ideally in an advanced knowledge model stage.

6.4 Strategies for Programme Implementation

A good strategy in the area of programme implementation complements the strategy of organisational development. The simple reason for the tremendous success of OCLC is that OCLC focused from the beginning on those library functions and services that can be effectively shared and was built on a model of financial reward to contributing libraries. This underscores the need of: (i) relevant programme formulation, (ii) increasing the visibility of the network, and (iii) proportionate financial reward system to the servers.

Relevance of a programme may not be restricted to only functional needs of the members. Sometimes such programmes may be directed towards the philosophical needs also. Journal Access Core Collection (JAAC) is one such programme aiming to retain the diversity among the member collections. This programme by California State Universities (CSU) is an example of libraries making their demand to vendors and not accepting what the vendors are offering. Initial concept of JACC was to offer electronically every periodical title (about 1300 titles) owned by 15 or more CSU libraries.

The JACC model reflects a new approach for e-journal licensing based on CSU's needs rather than established aggregator's offerings. It reflects a customised database, not an existing one. The goal is to strengthen core journal resources and provide seamless access to these web-based journals through a common interface.

JACC has provided a model for a group of libraries to get together and express their

needs to the vendor community. This programme also brings into focus the inevitable conflict or incongruity that is created through consortia acquisition whereby groups of libraries strive to get more titles less expensively than would each library by going it alone. This effort leads consortia to sign onto large packages that either bundle titles or forbid cancellation of previously held subscriptions. By trying an increasing percentage of library funds to the large package that severely limit cancellations; librarians may be subsequently forced to cancel subscription of single titles with smaller publishers.

Programmes like JAAC promotes a balance of acquisition based on the scholarly merit of the journals and not on the status of the publishers. While deciding on the programmes, a considerable debate may be generated on universal requirements of the service to be offered. This can be true particularly for programmes like joint system development, virtual union catalogue development, etc. Universal requirements should not be overstated though some services gain efficacy from consistency. Those requirements should be imposed when pay-off is large and the cost of consistency is minimal.

The visibility of the networks is one of the ingredients for success. This cannot be accomplished simply by promotion through brochure or website. The best way to make a library network visible is by showing it works. In many social service sectors, model areas are created where the length and the breadth of those areas are covered by that service.

This strategy serves a dual purpose. First, an existing model can be used as reference to build the next one. Second, such a model gives first hand feedback on the bottlenecks that can hinder such cooperative activities. A model cooperative network of libraries, in one or two areas can establish itself as a dependable and visible institution.

A suitable financial return is the best incentive for the contributors of the cooperative. Although sharing resources is the ultimate objective, consortia need to behave in a

calculated and businesslike fashion as well. A financial return system can also compensate the operational cost of the contributors to a great extent.

7. THE FUTURE AHEAD

The plethora of electronic journals and issue of proprietorship of electronic products by the subscribing libraries have already brought another task to the door of the consortia. Several consortia efforts are already ongoing to create digital archives. This enormous task provides another fertile ground for collaborative activities. To generate a critical mass of digitised text, to build up a scalable collection, responsibility for the long-term maintenance of digital resources on behalf of depositors, are all in the arena of shared activities.

Given the expensive nature of the resources necessary to create digital collections and to build the infrastructure that allows access to them, the only way to build such a collection is through sharing the job. Unless the libraries are ready to discharge duties in a collaborative environment, such future tasks will be difficult to be accomplished. After all one should learn to crawl before walking and to walk before running.

Eliciting institutional commitments from server libraries and transforming such commitments into action should be part of the strategies of consortia/networks formation. Hence some kind of agreement documents are to be prepared specifically by the libraries at the cooperative network level. As the services are to be provided to the external world by these libraries, various existing infrastructure within the organisation may be required. To remove the scope of any impediments, an explicit willingness of the parent institute will be helpful.

It is clear that the technology of the web, the increasing importance of electronic resources, and the advances in the resource sharing systems have created new opportunities for consortia. Beyond these technological and economic motivation, in consortia, the

librarian's instinct for collaboration, which can help at a time of great uncertainty and rapid changes is quite visible.

Joining a consortia, integrating intellectual access, providing for both physical and electronic development process are all the distinct steps moving towards 21st century libraries. Development in modern resource sharing, whether they be document delivery services or computing services, do not alter the ethics of librarianship.

Keeping in view the old traditions and applying them in the new environment will make institutions grow and provide useful service for the betterment of resource sharing.

Libraries and information providers must jointly develop and agree upon what constitute and effective measure of the use and value of electronic information so both parties can demonstrate better returns on investment. For any form of consortium contract to work, it must be fair and equitable to both parties. To reap the benefits of e-information and consortia movement, we need to overcome the rigid administrative and audit rules. In India, we need to network the minds of administrators and librarians.

Consortia efforts are time consuming, frustrating and difficult to build and sustain. But still, they are potent, social, economic and political forces in reducing the unit cost of e-information and increasing the resource and user base and help libraries to achieve more collectively than they could accomplish individually.

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