Chapter: 9

Conclusion

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9.1 RESEARCH FINDINGS

The collection, organization, preservation, and dissemination of information and knowledge are the goals of librarianship. They are never-ending processes requiring changes in implementation as environments change. Access to information is seen to be the key to personal and national economic success. Both individuals and countries find barriers in the road to access: high prices, exchange rate disparities, restrictive licenses, and "take-it or-leave-it" services (Friend, F.J, 2002). Access is the code word for the virtual library and it seems to be so simple: just clicking links to get information. But technical, legal and organizational barriers characterize the reality of virtual libraries and their users. The integration of digital and networked information with the traditional collections and services of libraries is the main challenge at the beginning of the 21st century. An effective virtual library cannot only have good will, hyperactivity, technology and information resources as its foundations. The patchwork of existing solutions is a good starting point, but librarians have to develop concrete visions, objectives and strategies to build the virtual library according to the needs of their users (Watjen, 1999)

Technology is changing the nature of libraries and librarians, and it continues to exert a major influence on the strategic direction of libraries in society. Numerous issues face libraries today. Libraries of all types are challenged to provide greater information access and improved levels of service, while coping with the pace of technological change and ever-increasing budget pressure. The need for staff trained in technology as well as the traditional library disciplines has increased the cost of attracting and retaining staff.

The vast array of new technologies and tools can be daunting to introduce into library environments. Although the benefits may be significant, many libraries do not have the capability of maintaining and upgrading a complex environment over time. In addition, there is a significant demand for standards-based, open systems that easily integrate. Widespread use of the Internet has heightened users' expectations. Access to library digital information is expected all the time, from anywhere. This is forcing a shift in role
from repository to gateway, with users expecting online libraries that can provide round the clock service. As a result, connectivity and availability are critical service elements. Libraries are now being asked to work closely with all parts of the institution to develop campus-wide portal and Knowledge Resources Management and delivery strategies.

With the advent of the Internet, individuals' expectations for access to information have increased dramatically. It is no longer considered practical or acceptable to travel to a specific location during certain hours to locate needed information. Library patrons are not satisfied to locate an item of interest that is housed at yet another physical location, request the item, and then wait days or weeks for the item to arrive at the building where it was requested. Patrons increasingly expect instant access to all the Knowledge Resources they require, from any location, at any time, and from any device. This trend has propelled the digitization of physical documents and their storage in multimedia management systems, accessible via browser from any location.

The growth in the number and volume of electronic resources has created a new problem: how can the average library user identify the best resources to search for desired information and learn to navigate the disparate user interfaces to make effective queries? In many cases, when libraries have invested significant sums to make commercial databases available to their patrons, they have experienced very low utilization of those resources. Faced with large numbers of potential sources and interfaces, many users revert to the ease of using well-known Internet search engines - even though the quality of information returned is usually poorer than that available through specifically focused subscription databases. New broadcast search tools eliminate the need for the user to make repetitive searches in different databases and present a single user interface for all searches. With a single query, a library patron can search many different sources simultaneously.

The resurgence of library consortia in recent years has shown that the spirit of co-operation, collaboration, and co-ordination viewed as essential by early leaders of modern librarianship is still strong. Coupled with technological advancements and the
willingness to meet the challenges of working out rules of coexisting together, consortia hold a big promise for the library world. The services offered by these consortia have, to date, been largely additions to existing and continuing services. They have rarely replaced print resources and thus have not resulted in cost savings in terms of the overall library budget. What has been achieved is the provision of resources to patrons who did not have them before, especially in smaller libraries and distance education learners. Additionally, there are increased levels of services and convenience for the patrons of larger libraries. Generally, the development of library consortia shows a shift from a peripheral and limited resource sharing to an integrated system-wide and formalized resource sharing (Nfila, and Darko-Ampem, 2000).

Consortia have also used their strength to give coherence to the provision of electronic journals and books within a region or country. Collection development is a much more powerful tool if it is used through a consortium, which is able to cover some of the gaps in purchasing. Fragmentation of purchasing policy often leads to the same basic content being purchased by all libraries, with much valuable material not purchased. A consortium can plan collection development much more effectively. Everybody gains from access to more content. The benefits of common collection development are even greater if the route into the content is the same for all members of the consortium.

Consortia are providing funding authorities with better value for money from library budgets. Consortia are gradually changing publishers' pricing and licensing policies. And the bottom-line test is that as a result of the way in which consortia are using their strength, users of libraries are receiving a better service than they would if consortia did not exist.

One of the library consortia models that is largely in practice is that the information provider-hosts their resources on their site and the member libraries will have access to them through the Internet. In other words, the libraries have access to the resources and not the ownership. In this environment, there are mainly two types of access viz., Internet Protocol (IP) enabled and password enabled. In an IP enabled environment, one or more
IP addresses of the workstations of member libraries are registered with Information Providers. Access is also gained through the proxy servers (under firewall environment) at the member libraries by registering only the proxy server IP addresses with the information providers. In an IP enabled access environment, the patrons will be able to access only through the workstations, which are connected to the network within the campus. Patrons may also be able to gain access from their home provided such facilities are extended. But, they may not be able to access when they are away (abroad). This could be possible only through the user name and password enabled access. In both the environments, authentication and security are main issues both for the information providers and member libraries. Though the resources are accessible on the Internet, the formats in which the resources available are different for different information providers. Each one has their own resource discovery system or search engines, the content display, the download options etc. When a member library subscribes to various sources under consortia through many different information providers, the end user in the library will have to repeat the search for the information, which he is looking for in every resource discovery system of the various information providers so as to get a comprehensive list of search results. This will be time consuming and laborious. Under some other consortia model, the information provider will mirror their database on one or more libraries of the consortia. The infrastructure requirements for mirror site (cost of shared servers, and other necessary tools) are quite high. A considerable effort of maintaining a mirror site can be saved if the system is mature and stable.

The libraries in today’s modern consortia need to operate as one, and yet remain separate; belong to union, but function autonomously. Each library uses their own library automation software with different formats and standards. Because, there is lot of investment already made and huge efforts have gone in developing their library holdings databases, the libraries are not prepared to change to a common platform, which the consortia may decide. Without a common platform, sharing resources becomes an issue. Integrating consortia capabilities in the existing library automation software will be a huge effort and it involves costs. (Pandian and karisiddappa, 2003)
Library consortia activities are picking up in India. There is a greater awareness among the stake holders viz., librarians, administrators, policy makers, etc. about the benefits of library consortia. INDEST, CSIR, IIMs, DAE, and UGC have all been engaged in some sort of consortia activities. As of now, the library consortia activities in India are restricted to jointly subscribing to electronic resources. In other words, they are more of buying clubs. The scope and activity of Library consortia are not limited to licensing electronic resources. It is much beyond. It will eventually empower the users accessing more information in the least possible time. Technology plays a major role in achieving this. In an ideal technology enabled library consortia environment, the entry point to the patrons of each member library is through a single web enabled window system that is user-oriented and provide access to the entire collection of the consortium member libraries. The system at the user end should offer services like patron identification and authentication, a comprehensive resource discovery system (encompassing the entire OPAC of member libraries and their holdings), access to the entire e-journals collection and databases. All these should be done through a single search and that should facilitate locating all the resources that are available across the member libraries. No matter where the search results comes from. The system should be capable of patron-initiated online requests of resources and Inter Library loan facilities. In other words, the technology enabled library consortia must provide:

- a single point of access
- unified login (including one user ID)
- one common user interface, i.e. one presentation structure
- one uniform, user-friendly retrieval system
- direct access to electronic media and a unified request service.

This research attempts to demonstrate how consortia as a concept for people to come together and intranet as technology concept to bring heterogeneous resources in distributed environment together for optimum utilization of information resources acquired and thus enhance the return on investment. This enhancement of return on investment in terms of optimum utilization of the resources available help the
stakeholders to provide more funds and other infrastructure facilities. This help libraries acquire more resources and more infrastructures that will ultimately empower the users of getting right access to right information at right time.

The proposed unified intranet portal framework in this research explores the possibilities of deploying all the relevant emerging technologies that support unified access to heterogeneous resources in a distributed environment.

One solution is rarely right for all circumstances; one user interface or one search technique is unlikely to suit all circumstances. The tricks are to determine which solutions make most sense for which cases, come up with good ways to guide users to the solutions that make most sense for them. The IIM-UIPS is a mixed of both centralized and decentralized models. The design framework of IIM-UIPS is based on a number of investigations and enquiries into available standards and technologies, functional requirements of users, staff and systems. The technical starting point at the beginning of the design of IIM-UIPS was the heterogeneous nature of access to the data of the participating IIM libraries. All the distributed resources that we are interested in may not be searchable in a standard way, nor can they all easily be made searchable. Therefore, in some environments, it makes more sense to harvest a subset of resources, to build a consolidated index, and then to search that consolidated index through the portal at the same time as the distributed resources. The IIM-UIPS, in fact, ends up relying on a mixed model of searching, with some resources distributed, and some harvested and centralized into a single searchable index.

The system proposed will act as a unified intranet portal to offer integrated access to the combined resources of the IIM libraries. The system will have a central authentication mechanism to facilitate single sign on approach to access all the resources across. The system proposes an IIM-UIPS Metadata repository to pool the metadata from resources that are OAI compliant. The system also provides a custom scripted extraction of metadata from sources that do not support OAI. The IIM-UIPS federated system builds on two effective protocols viz., Z39.50 and OpenURL. In order to make the search
effective and to yield better search results by increasing the precision and recall value, the system proposes a unique IIM-UIPS Resource Control System that builds on controlled vocabularies extracted and normalized from targeted sources. This intelligent resource control system acts as heuristic system to identify the target resources based on the nature of the query and structure and provides appropriate search mechanisms. In effect, The IIM-UIPS will facilitate bringing together on the user’s desktop disparate collections and will allow for cross-collection searching. It will present integrated results and will deliver digital objects. It will be a major contribution to research, teaching and learning both in making resources widely available and by making possible new connections through exploitation of a huge virtual library.

9.2 COST EFFECTIVENESS ANALYSIS

Cost effectiveness analysis is an economic evaluation tool that can be used to compare two or more strategies to assess the trade-off between extra cost and the improvement in outcomes. It is a tool that helps a decision maker to identify a preferred choice amongst possible alternatives (Quade, 1967). Economic models comparing the digital to the traditional library show that digital will become more cost-effective provided the following four assumptions prove true (Chapman and Kenney, 1996):

- that institutions can share digital collections,
- that digital collections can alleviate the need to support full traditional libraries at the local level,
- that use will increase with electronic access, and
- that the long-term value of digital collections will exceed the costs associated with their maintenance and delivery.

The model proposed in this research attempts to prove the above assumptions true for IIM Library Consortia. The IIM-UIPS greatly increases ease of access, and thus the use of information will grow hugely.

Electronic information doesn't diminish with use. Electronic information can be copied without losing any quality. And it can be copied quickly and in large numbers of copies.
Electronic resources, by breaking the relationship between the cost of production and distribution from that of intellectual property charges, offer an opportunity to deliver more equitable information services. Electronic information does not require large storage space and maintenance is less expensive than its print counter parts and can made available and accessible anywhere and anytime. Thus, access to electronic resources, storage and management of electronic resources prove more cost effective than print resources.

Being part of a consortium gives a library economic leverage, not to save money per se, but to purchase information at the lowest unit prices. Operational leverage is another advantage to the consortium approach: A library can maximize the cost-effectiveness of its investment in computer equipment and services. There is also the administrative leverage in negotiating one agreement for all instead of on an individual library basis.

As discussed in Chapter 6, some of the resources which are either currently being used by one or more IIMs or will be great relevance to the IIM community were offered at drastically reduced price when they are subscribed to as consortium. For example:

- ABI/INFORM Global Fulltext was offered at US$10,000 as against US $18,500
- Business Sources Premier was offered at US$ 10,000 as against US$ 18,000
- Gale Products (business and company resource center) suite at US 10,000 as against US$ 44,000
- Global Marketing Information Database (Euromonitor) at US$ 7083 as against US$ 25500

Thus, proved that subscription to resources through consortia is more cost effective than subscribing the same by individual library.

9.3 LIMITATIONS

This research work is based on the need analysis of the six IIM libraries in today’s digital knowledge era and the proposed framework of unified intranet for sharing electronic
resources is targeted only towards these IIMs. IIM Libraries have many common areas. Their major objectives are common. The library environment in IIMs is also similar to each other. They all use the same library management software. All the six IIMs already have the necessary infrastructure for implementing the proposed framework. These common features across IIM libraries make the proposed framework much more effective and can be implemented without too much of difficulty. Also, since this study being a one-man investigation, the work had to be done with the available resources and time. And the results have not been lab tested. It would be also difficult to conclude that these results targeted towards only six IIM libraries could be extended to other type of libraries, which are of varied nature. On the other hand, the emphasis of the proposed framework on the context of the six IIMs agrees with the basic objectives of this research. My conclusions were that the basic methodology adopted in this study does not necessarily change with the number of organizations covered. The sample of six IIMs is diverse enough to reveal several possible differences among various other types of libraries.

9.4 FURTHER RESEARCH

As mentioned in the limitations of this study, there is a need to carry out further studies involving various types of library and consortia, which are having diverse characteristics. Since in every 6 to 12 months, there are newer technologies and tools emerging, there need to be further studies looking at better alternate technologies and tools as an effort to leverage on the latest technologies.
9.5 REFERENCES


