STUDY OF DESIGN AND DEVELOPMENT OF AN INTEGRATED UNIVERSITY LIBRARY SYSTEM IN THE DIGITAL ENVIRONMENT

V S Cholin   C R Karisiddappa

Abstract

Library plays a pivotal role in ensuring the success of higher degree of research in the university environment. Information technology has revolutionized the information handling activities in the academic libraries during the past few years. The Information Society demands that all the relevant technologies; that are involved in information processing, consolidation, repackaging and retrieval be merged so as to evolve an integrated system; capable of providing diversified services. In this direction the automation of individual university libraries is a first step, rather a pre-requisite for the development of such an integrated university library and information system. In this research study an attempt has been made to study the automation and networking of universities in India and discuss the need for an integrated information system and the components of integrated information system.

Keywords : Integrated Information System, University Library, Integrated System

1. Introduction

A library plays a pivotal role in ensuring the success of higher degree of research. The important activities of university libraries include the Collection Development, Reference Service circulation, Document Delivery, User Education, Access to Electronic Resources etc. University libraries are expected to provide cost effective and reliable access to information using the state-of-the art information technology tools.

Information technology has revolutionized the information handling activities in the academic libraries during the past few years. The Information Society demands that all the relevant technologies; that are involved in information processing, consolidation, repackaging and retrieval be merged so as to evolve an integrated system; capable of providing diversified services. In this direction the automation of individual university libraries is a first step, rather a pre-requisite for the development of such an integrated university library and information system. The promising trend in the development of information services with effective networking of these libraries will facilitate the optimum utilization of information resources.

Indian universities constitute one of the largest higher education systems in the world and today in our country there are more than 318 universities / institutions, 16,500 affiliated colleges, 10 million students with 5 lakhs teachers. This vast academic community needs a wide variety of information services in the changing academic environment.

The electronic resources, which are available in libraries today is an outcome of the advances in both computer technologies, with powerful computers the information storage and delivery mechanisms, such as CD-ROMs and user-friendly interfaces. In most of the academic libraries in the western countries, Online Public Access Catalogues (OPAC's) have almost replaced card catalogues, offering enhanced search capabilities for accessing the local collection and often expand coverage to include the holdings of other area or regional libraries. Many libraries also provide a web interface to their library and information system. The library and information system with a web interface often includes direct links to electronic journals, books and Internet resources.

Access to electronic journals and full-text data is another important component of an integrated library system providing access to full-text resources in an electronic library setting. The consortia models help to provide better access to scholarly literature. The access to electronic resources enable the researchers what they want, when they want it, where they want it. Full-text electronic resources offer access to resources unrestricted by either location or library hours.

2.   Higher Education System in India

Higher Education has undergone a radical transformation in the last few decades both in UK and the US. Education is one of the most crucial services in the economy. The quality of life of society at large and individuals in the society largely depends upon the quality of education. Higher education institutions in the country especially the Universities have been producing the required quality manpower as per demands made in the social system. Since the dawn of independence in India, higher education system has grown enormously. It has expanded in an unprecedented manner not experienced by any other nation in the world in recent times. The advent of Information Technology products like computer and Internet have further made it possible to spread the higher education even in remote corners of the country (Kamal, 2002).

The higher education in India provides information on degree and diploma awarding universities, institutions of national importance, deemed universities, and colleges imparting general, technical and professional education. In the Indian system, higher education includes the education imparted after the 10 + 2 stage – ten years of primary and secondary education followed by two year higher secondary education. The first degree, the Bachelors degree, is obtained after three years in normal case for arts, science, commerce and four years in the case of professional degrees (four and half in case of medicine and five / six in case of law). The Master's programme is usually of two years duration. The post-graduate programmes except engineering involve 2 years of study after first degree, the M. Phil. Programme is of one-and-half year duration and is a preparatory programme for doctoral level studies. Ph. D programme is research study for 2 years, while D. Sc. and D. Litt are awarded by some universities after Ph. D for the original contributions. (Universities handbook, 2002).

During the last 53 years we have very rapid expansion of Higher Education. The Table – I shows the growth of higher eudcation in India (Dongaonkar, 2002).

Table – I Growth of Higher Education

Type	Growth of Higher Education		
	1947-48	2001	Increase (Times)
Universities	30	264	9
Colleges	591	11,594	20
Teachers	21,264	3,85,000	18
Enrollment	2,28,000	85,00,000	37

Over the last few years, large number of private and deemed institutions attained university status and India's higher education system has continued its growth and has reached more than 318 universities at present. Deemed-to-be-universities(also referred to as Deemed Universities) are institutions that are conferred status of a university by virtue of their long tradition of teaching or specialization and excellence in a particular area of knowledge. To cite an example Tata Institute of Social Science Mumbai, Deccan College of Post Graduate and Research Institute, Pune etc. The "Deemed to be University" status is

granted by the University Grants Commission(UGC) with the approval of the Department of Education, Ministry of Human Resources Development (Educational Consultants Inda, Ltd. 2005).

2.   Status of Automation and Networking of Universities

The main purpose of this research study was to understand the possible areas where the application of Information Technology (IT) is made as a part of overall improvement in the university library services, and also to understand the pace of accepting the emerging IT particularly Internet in the university libraries. The study also focuses on implications arising out of IT applications, the strategies and future plans to formulate an integrated information system.

The data is collected from various sources. The questionnaire was designed for this purpose. It is a tedious task to cover the entire set of universities all over India. Hence the study is restricted to approximately 25% of the total set of universities taking into consideration the regional, types and status of universities. However universities for the study are randomly selected and the details are given below.

Table – 1 Break-up of universities covered and response received

Type of University	Questionnaire Response		
	Mailed	Response received	Rate (%)
Central Universities	7	5	71.4
State Universities	30	24	80.0
Agricultural Science Universities	6	4	66.7
Medical Universities	4	4	100
Technology Universities	6	5	83.3
Law Universities	1	1	100
Indian Institute of Management	2	2	100
Specialized Universities (including Sanskrit)	6	6	100
Language universities	2	2	75
Open universities	2	1	50

2.1   Pilot Study

A pilot study was conducted to test the suitability of the questionnaire. 16 libraries were covered for pilot study and the response received from 10(63%) libraries were analyzed. Further the responses were critically viewed and certain ambiguities were resolved to draw the final questionnaire.

54 university libraries forming 81.8% of a total population covered are received. The statistical package for social science (SPSS) package was used to feed and tabulate the data. The analysis is done using the frequency distribution technique and the details are given in the following paragraphs.

2.2   General Information

It is an established fact that most of the Indian universities have not filled in the post of Librarian though the posts are sanctioned. The survey shows that 48(88.9%) of the libraries reveal that the libraries are headed by library science professionals and some of them are at Assistant Librarian level, where as 6 (11.1%) libraries were headed by the Library In-charge from other subjects.

2.3 Qualification of the Librarians

The data shows that 26(48.1%) libraries are having qualified librarian with Ph.D. in Library Science. Where as 17(31.5%) libraries have the professionals with Master's degree in library science. There are few librarians with M. Phil qualifications.

2.4 Manpower

The data regarding the manpower available in various universities was collected to know the strength of the competent staff to handle new information services. Since there is hardly any recruitment in number of universities the staff strength has reduced considerably. The data reveals that 22(40.7%) libraries have less than 10 qualified professionals. There are few libraries where even less than 5 staff members working to serve the users. The staff strength in 18(33.3%) university libraries ranges between 10-20. 12(22.2%) libraries have more than 20 qualified professionals. With the implementation of Information Technology the computer science professionals are recruited at various universities. The University Grants Commission-UGC, INFLIBNET supports the appointment of Information scientist. It gives the financial assistance to recruit a person with computer science background or Library science with P G Diploma in computer applications. It is observed from the table that only 27(50%) libraries have computer professionals.

2.5 Users in the Universities

Figure 2 -Users in the universities
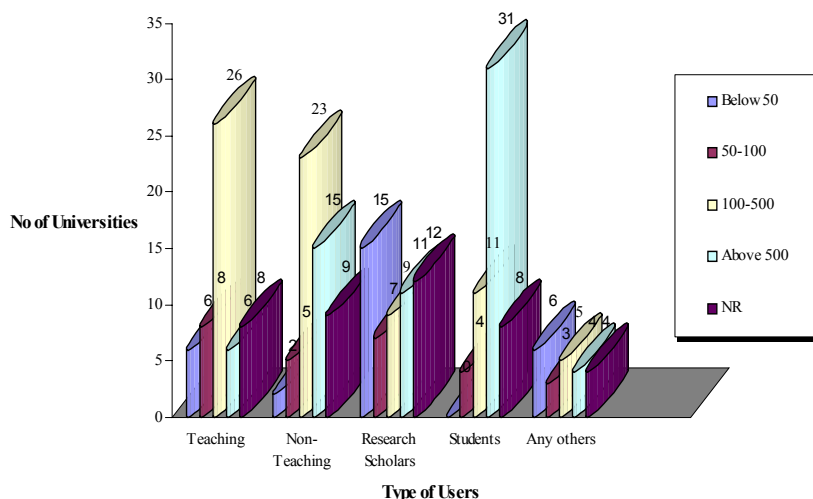
Users of the university libraries are teachers, research scholars, students, non-teaching staff. The graph given above as shows the number of users using the libraries covered under the survey.

2.6   Availability of Infrastructure

Many universities procured computer systems with Pentium – III when they received funds under Automation and networking facility of INFLIBNET and many have not been able to upgrade their computer systems due to financial limitations. However few major and small universities have upgraded the computers time to time and have latest computer systems.

2.7   Software Used

Generally the Softwares are used for database development and management of library house keeping operations and word processing activities. Many libraries initially started using CDS/ISIS for data creation etc but later on they purchased library software. Few universities did not respond to this question however many universities were using SOUL software developed by INFLIBNET and equal number of universities were using commercial software viz., LIBSYS, SLIM, LIBRIS, ALICE and few have developed their in-house software.

2.8   Database Development

Database development and maintenance are the most important activities to facilitate optimal resource sharing. Databases created by the libraries according to their requirements. However for this study data in respect of only books, serials, theses and reports are collected. The development of the databases in the libraries is not encouraging at many universities however few universities have made exceptional progress and automated all their activities. Different types of databases are created by these universities viz. books, serials, thesis, technical reports, standards, patents, manuscripts etc.

2.9   Networking of Universities

Libraries initially had network connectivity using data networks such as NICNET, VSNL, ERNET, and many other private ISPs. These universities had limitation of funds and the networking was not that effective. With the implementation of UGC-Infonet universities provided funds under UGC have received the Internet connectivity ranging from 256 Kbps to 2 Mbps depending the different criteria set up by Joint Technical Tariff Committee (JTTC) appointed by University Grants Commission. This has enabled universities across the country to have seamless access to Internet and electronic resources under UGC-Infonet E-Journals Consortium. The other universities viz. Technical and medical universities have also upgraded their infrastructure in terms of network connectivity and provide access to Internet and other resources.

2.10   Future plans of Universities

The importance of activities and services in the libraries is based on its present services and future plans. Few libraries already have some facilities viz. automation, Campus LAN, member to the network etc. However many other universities do not have these facilities and feel important in the present day context. The chart below shows the impact of different activities are found out and ranked. The table shows that very few libraries have the facilities existing with 16(29.6%) libraries already have automated activities similarly the importance of these services and their priority is ranked showing the importance of these factors.

Figure - 28 Future Plans
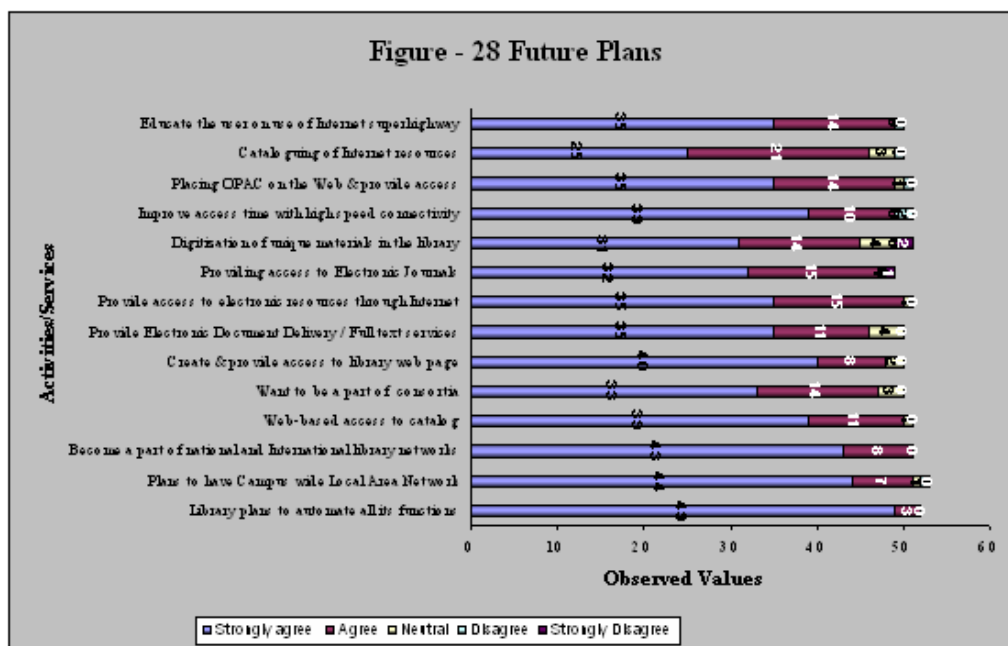
3. Need for an Integrated Information System

Universities in India have fairly good libraries developed over the years. Due to the technological innovation, lot of changes occurred in day today activities of human being. Libraries are not an exception. Drastic cut in funding, devaluation of currency, user expectations, initiatives from government and other organizations are various reasons for libraries to embark on available information technology. These technological innovations lead to library automation, library cooperation, library networking, resource sharing, use of Internet in the libraries, electronic access to scholarly journals, access to other library catalogues through union catalogues etc.

Most of the libraries have traditionally tried to own resources as much as possible, because owning an item provides faster access to patrons than waiting to borrow or purchase on demand. However the increased cost of maintaining a collection of primary sources and the increased demand for information has resulted in a shift of emphasis from that of ownership to access. In the present situation, as the academic libraries in India have been largely affected by financial constraints in which resource acquisition has been restricted. Most university libraries are ill-equipped to satisfy user needs within their resources with exponential rise in information. Libraries are unable to continue subscription to many publications due to price escalation and high foreign exchange rates. At the same time there is a conscious duplication of costly library holdings in the absence of convenient sharing mechanism. Scholars in remote areas feel mentally isolated. It is also impossible to fund all libraries to make them self-sufficient to meet the resource requirement are some of the challenges facing the academic libraries.

The need for establishing an integrated university library and information system is viewed in terms of the following points

1. Establishment of Integrated system facilitates the enhancement of existing library facilities and also increase accessibility to all other citizens to library resources and services.

2. Can provide training to the library staff who does not currently possess the skills in the use of new information technologies by organizing well-designed training programs with mechanisms for follow-up technical assistance and support.

3. Promote collaboration and cooperation among libraries for sharing of holdings and technical ability to maximize scarce resources. Limited holdings, financial capacity, and human resources are major barriers to improving library services.

4. Develop recommended standards and guidelines for library services.

5. Increase access to electronic information sources..

6. The cooperative activities are centralized, and they obtain remarkable results in training, the improvement of library Inter-lending, and in publishing a CD-ROM of bibliographical records from participant libraries for effective use.

7. Cooperation is a way to accelerate the evolution of libraries, and to create new services, to facilitate changes, and to save expenses. The library networks are developed to connect libraries, which ensure the development of union catalogue with locations.

8. In the era of the Internet, electronic documents, and the virtual library, maintaining independent libraries is out of order. In addition, the efforts needed to face the challenges of the information society and the changes that society is demanding of universities are destined to become weaknesses more than strengths in those institutions that face them individually. There are many reasons why it is advisable for libraries to approach these challenges collaboratively.

9. The huge technological opportunities to share information.

10. The high cost of the e-journals.

11. Growing demands of library users.

12. The ultimate goal of cooperation is to join users and the documents with information they need.

13. Consortia represent the possibility to test alternatives to the traditional automated library. They represent the potential to offer the best library services to a wider number of users with all the resources they possess.

14. The successful operation of a library consortium clearly depends on good working relationships among members and between members and the consortium.

15. One of the significant challenges facing academic libraries during times of dynamic change is the ability to understand the needs and perspectives of their users.

4.   Components of an Integrated Library and Information System

Libraries are changing. The old concept of library as a store house of knowledge are giving way to concepts based on development of 'Intermediary' roles in hybrid environment in which the resources are either traditional or in electronic formats. Librarians will need to be very clear about the purposes that their libraries serve, and will need to re-design the range of services they offer with those purposes in mind. All academic libraries virtually depend on the IT systems for their basic operations such as acquisitions, cataloguing, circulation, serials control etc. The development of IT based systems by organizations with which the libraries deal and within the institution it self has meant that much closer attention has to be paid to the integration of the library's system with others. The functions that are required to provide effective delivery of information requirements need to be integrated. The integrated university library and information system can provide one-stop information services using the state of the art information technology tools. The system designed to serve as integrated university library and information system is expected to cover all the aspects required so that the integrated system can support technologies such as Internet, electronic publications etc to provide integrated services.

In the context of new millennium, a university's position should be advanced as a leader among the colleges and universities in using the information technology and library services in providing an enriched learning environment. There is a desperate need for a university to make information technology and library services a pervasive and transparent part of the lives of students, faculty and staff.(William Patterson, 2001) The information resources are pervasive when they are available to every one. Those resources are transparent when information, applications and services are available without any delay or limitation of hardware/ software etc. Users must experience information resources as seamlessly integrated into their activities. The integrated university library and information system can provide pervasive access to information resources; to have a greater return with the use of computer and communication tools to return meaningful results for the benefit of research and academic community.

This model has to be developed with the following few objectives:

4.1   Automate all functions and maintain comprehensive automated library system.

The library system will maintain an automated library system which supports the internal automation of acquisitions with online ordering; serials control with online claiming; cataloging with authority control and bibliographic utility interface; circulation with off-line backup, patron telephone and e-mail notification, and telephone renewal; and patron access catalog etc.

4.2   Campus networking for connecting all the departments with library and Maintain LAN/Campus LAN / and a wide area network.

Remote sites need to be connected to the central site for access not only to the automated library system, but also to other electronic sources such as a CD-ROM server, an Internet server, an image server, and possible other servers. Because of the bandwidth needs will constantly be changing, a highly scalable technology is required.

The WAN will incorporate a LAN in each library facility. Each will utilize Category 5 UTP (unshielded twisted pair) cabling. The topology will be Ethernet. Routers will connect the LANs to the central site via the WAN.

4.3   Maintain contracts with two Internet Service Providers and regularly evaluate performance.

Contracts can be maintained with two Internet Service Providers (ISPs) for staff and patron access to the Internet. The reason for contracting with two ISPs is that it will make it possible to connect no more than half the staff and patrons to any single ISP-something, which is necessary because the service inevitably deteriorates due to the ever-increasing number of users which can outstrip the ISP's capacity.

The library will monitor performance not only by soliciting patron feedback, but also by having public service staff log on during known peak periods of activity. The ISP must offer the library rates, which are lower than those extended to individuals.

4.4   Seek to conform to all relevant standards.

Conformity to all relevant standards is a high priority. All cataloging will conform to the Anglo-American Cataloguing Code, Second Edition (AACR-2). The database of the automated library system will be developed and maintained in full-MARC format, including bibliographic, authority, holdings, and patron records. UNICODE compliance to be sought to facilitate multilingual user interfaces.

4.5   Create all library records in Machine Readable form using standards.

Creation of library database is one of the prerequisites for success of automated systems. Using the relevant standards such as MARC 21 and AACR2 formats the library records are to be created and provide access to library resources. The records so created using the set standards will facilitate easy exchange of records from one library to other library at local, regional, national and international level sharing of resources.

4.6   Provide online public catalogue access to within & to campus users and provide access to other library catalogues

The access to library catalogue and its resources is done through the user friendly online public access catalogue within the campus or to the outside users. This facility ensure that the users gets an access to information such as the holdings of different type of material in the library of their interest and its availability, shows the status of an item, facilitates the reservation etc. The OPAC will also provide access to information relating to due items with due date etc. OPAC user can also see the status of receipt of latest issues of a scholarly journal in the library.

The access to other library catalogue is equally important when the item required by the user is not within the campus or library, he/she may try to access the availability of such items in the nearby libraries where from one can borrow for a limited period using the inter library loan etc.

4.7   Provide one or more "electronic access centers" in each library.

The electronic access Centres play an important role in the university system as the end users expect the central library to provide such facility even at nominal cost. The library will provide one or more "electronic access centers"—clusters of PCs which provide access to a variety of electronic publications. The resources accessible through such centers will complement the library's print collection, rather than replacing it. While the most widely consulted electronic publications today are indexes and abstracts, an increasing number of reference publications and full-text/image files of journal articles are becoming available. Each electronic access center may be configured to also support multimedia access.

4.8   Maintain a Web site of its Own

Rather than limiting what is available to remote patrons to the patron access catalog, the library will maintain a Web site of its own and links to its automated library system, products on its CD-ROM server. The Web server will be configured with a "proxy server" firewall so that those accessing the libraries' automated library system or other servers will not have direct access, but will interact with the firewall, and it in turn will interact with the target system.

4.9   Negotiate for online reference services.

The library cannot afford to purchase all electronic publications, which may be of interest to its patrons, nor would it want to purchase those not used frequently enough to justify the subscription price. The library will continue to provide access to full text electronic journals, which is less expensive compare to the print archives. The availability of UGC-Infonet Facility is boon for universities.

4.10   Provide Document Delivery Service including electronic document delivery

Providing document supply and full-text access to online databases plays significant role in the shift from "ownership" to "access". The escalating costs of science and technology journals, budgetary constraints, and availability of science and technology literature via non-traditional sources, such as commercial document supply and full-text online databases, are reshaping academic libraries' science and technology collections, as well as the modes of accessing and delivering scientific information. (Bandyopadhyay, 1999)

ARIEL is a high-speed, high-quality, cost-effective document delivery system that runs on the Internet. Journal articles can be sent from one place to another by scanning the article directly from the journal. Text and graphics are digested into the computer, transmitted over the Internet, and printed on a laser printer at the receiving end.

4.11   Provide access to academic information viz. admission procedure, examination system, evaluation, scholarships, etc

The university library and information system works as model for access to information including the administrative matters etc. The end user should be able to find out the details of the admission procedures in the university system with criteria for selection of students, number of seats in each subject, online application, online results, scholarship details, hostel facilities etc. Though these databases are individually maintained at different places in the university, the integrated system is expected to provide access to such information and updated time to time.

4.12   Upgrade skills of the staff by training and orientation time to time on implementation of latest IT tools.

Staff must be trained to handle their new responsibilities. As systems become more complex, staff training increases in importance. Training can be limited to small groups to provide both hands-on experience and close monitoring by the trainer. This core group will then train others in the library.

4.13   Designate a full-time systems manager.

The library will designate a full-time system manager who has responsibility for acting as liaison between the staff and the vendor. Appointment of the system manager ideally occurs before the vendor is selected.

The person selected as system manager need not be knowledgeable about electronic data processing but should understand the functions of all of the library's departments and have good interpersonal skills. The system manager will have to reconcile the library's needs with the capabilities of the vendor, coordinate standards development, implement new system features, oversee vendor compliance with the contract, etc.

4.14   Phase in implementation over a period.

The components of the plan can be implemented over a period of time. Reasonable amount of time is required not only for financial reasons, but also because library staff cannot be expected to do everything at once. It also is not practical to develop a plan, which looks further into the future because the rate of change is too rapid.

The plan has to be updated each year and a detailed schedule of activities may be drafted. It will include updated specifications and cost figures.

5.   Conclusion

Libraries are changing. The old concept of library as a store house of knowledge are giving way to concepts based on development of 'Intermediary' roles in hybrid environment in which the resources are either traditional or in electronic formats. Librarians will need to be very clear about the purposes that their libraries serve, and will need to re-design the range of services they offer with those purposes in mind. Libraries exist to serve their users, but the user population is increasingly heterogeneous. All academic libraries virtually depend on the IT systems for their basic operations such as acquisitions, cataloguing, circulation, serials control etc. The functions that are required to provide effective delivery of information requirements need to be integrated. The integrated university library and information system can provide one-stop information services using the state of the art information technology tools. The system designed to serve as integrated university library and information system is expected to cover all the aspects required so that the integrated system can support technologies such as Internet, electronic publications etc to provide integrated services. The vast information sources which the library gives access to are not only the item held by or owned by the library but also given access to remote information sources and handling the resultant requirements to authenticate and authorize users. These are the key challenges for the modern academic librarian. (Wendi, Arant, 2001)

In the context of new millennium, a university's position should be advanced as a leader among the colleges and universities in using the information technology and library services in providing an enriched learning environment. There is a desperate need for a university to make information technology and library services a pervasive and transparent part of the lives of students, faculty and staff.(William Patterson, 2001)

Academic libraries in India have long desired one-stop shopping for their customers and in this electronic age their customers are demanding it to search from a single point at any physical location, and retrieve information from the library catalogue, citations from journal indexes and full text information from electronic resources. University libraries must provide reliable, cost efficient access to information whether print or multimedia and whether held locally or remotely. The need to provide information services that remove the barriers of distance and time become even more important. In earlier times libraries have always acquired and organized material so that the information is accessible more easily. Libraries are an integral part of the academic mission of a university. Libraries can enhance a university's reputation by providing access to World class information resources and services and can stimulate research by promoting collections and services widely.

6. References

1. Bandyopadhyay, Aditi Accessing science - technology literature: commercial document delivery services and online full-text databases, Collection Building, Vol 18 Issue 1 Date 1999 ISSN 0160-4953.

2. Cholin, Veeranna S : "Study of the Application of Information Technology for Effective Access to Resources in Indian University Libraries" The International Information and Library Review, Vol. 37, Issue no. 3, pp 189-197.

3. Dongaonkar, Dayanand. Quality assurance in health sciences education. Paper presented during the 77th annual meeting and National Conference on Quality Assurance in Higher Education held at SNDT Women's university, Mumbai during 22-25 November, 2002.

4. Educational Consultants India, Ltd.(2005) Why India Retrieved from http://www.educationindia4u.nic.in/mainpage.asp#-strong

5. Kamal Yousuf. Excellence in Higher Education. Paper presented during the 77th annual meeting and National Conference on Quality Assurance in Higher Education held at SNDT Women's university, Mumbai during 22-25 November, 2002.

6. Universities Handbook. (2002) New Delhi: Association of Indian Universities (p.1)

7. Wendi Arant, and Leila Payne. The Common user interface in academic libraries : myth or reality?. Library High Tech. Vol. 19 (1) 2001 Pp. 63-76.

8. Patterson William University Technology Plan (2001-2006).

About Authors

Dr. V S Cholin, MLISc Ph D, Fulbright Scholar (OhioLINK) visited OhioLINK-OSU USA for six month. Working with INFLIBNET Centre for the last 12 years and has been appointed as Convenor of the National Steering Committee by UGC. Awarded Ph. D in Library and Information Science from Karnatak University, Dharwad. Received ASIS & T International Paper Award 2004 and also received SIS-Professional Young Scientist-2004 award. He has also received the best paper award from Raja Rammohun Roy Library Foundation RRLF for writing the best professional article in 2002. Attended 69th IFLA International conference held during August 1-9, 2003 at Berlin, Germany. Attended International Coalition of Library Consortia – ICOLC Spring Meeting 2005 held at Boston during April 10-13 2005 and American Library Association (ALA) annual conference held at Chicago, during 24-28 June 2005. He has more than 25 papers to his credit. He is currently heading the Informatics division of the centre and looking after the prestigious UGC-Infonet E-Journals Consortium at INFLIBNET.
Email : cholin@inflibnet.ac.in

Dr. C R Karisiddappa, Professor and Dean Faculty of Social Sciences, Kanratak University Dharwad. Presently he is the President of IATLIS(2005-08). He has also served Indian Library Association (ILA) as its President (2002-04). He is nominated member of the School Boards of IGNOU, New Delhi and NEHU, Shillong. Recently Raja Rammohun Roy Library Foundation (RRRLF) has nominated him to the Grants Commission. He has visited Republic of Yemen & Australia and delivered series of lectures in the Departments of Library and Information Studies. He has attended International Conference at Middle East Technological University, Ankara (Turkey) at the invitation of IATUL (UK) and presented a theme paper. He has also participated in the 69th IFLA World Information congress at Berlin (Germany) 2003. Dr. Karisiddappa is actively associated with UGC Committees and NAAC Peer Committee. He is a life member of all the major National Associations in the profession in addition to the life member of ISSI.'
Email : karisiddappa@yahoo.com