



## **Library Automation in India**

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### **Abstract**

The notable players in the field of library automation in India are the special libraries in the country. The libraries or documentation centers of the research and development institution under CSIR, ICAR, ICMR, DRDO and libraries belonging to private and public sector research and development institutions, have made useful contributions.

The application of information technology changed the library Scenario. Indian libraries also have been benefited by the information technology which mainly includes computer technology, Communication technology etc.

In developed countries computerization of libraries started in 1940s. The first use of computers in library and information center in India was reported in 1965 at INSDOC, now known as National Institute of Science Communication and Information Resources (NISCAIR), New Delhi. The current article highlights the significance of library automation in India.

**Keywords:** automation, library, technology

### **Introduction**

The Internet and Web-based technologies have made it possible for libraries to provide access to their catalogues on the local intranets, extranets and sometimes via the Internet. This arrangement, especially when the OPAC is available on the Internet, makes it possible for library users to access the facilities from anywhere in the world and for 24hrs a day, 7 days a week. This is possible because most library software systems now include Web-based interfaces to OPACs, as opposed to telnet-based access systems. Library users also find it easier to learn and use the OPACs from different library systems since they only have to know how to use one universal access client, the Web browser. Web-based OPACs also allow for linking to other information resources such as tables of content, full-text documents, and works/titles by the same author.

Modern ICTs have made it possible for libraries to provide their users with access to networked digital information resources, i.e. online databases, electronic scholarly journals, encyclopedias, public government information, etc. provided by various publishers or suppliers. In cases where information resources are supplied by commercial suppliers, libraries are negotiating agreements on behalf of their users, for the rights to access these resources.

Library users connect to networked information resources using Web browsers running on workstations in their offices or at home, or public workstations located in the library or at cyber cafés. It is also now possible for libraries to provide customized information services delivered directly to library users' desktops and this is being achieved using portals which are defined as Web-based applications accessed over the Internet, intranet or extranet, that provide a personalized and adaptive interface which enables users to discover, track, and interact with other people, applications, services and information relevant to their interests.

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Libraries generate and manage a lot of data and information and the data may come from interactions with users, it may come from administrative activities, it may come from collection development, use and maintenance activities.

The major functions of MIS in libraries is to assist staff with the daily decision making process; to maintain better accountability and control of resources; to monitor budget allocations; to improve overall library effectiveness by focusing on outcomes; to generate internal and external reports; to improve long-term planning; and to facilitate performance measures activities.

In an era where libraries are faced with budget cuts and are also required to justify their existence, provision of up to date and reliable management information becomes crucial. ICTs are making it easier to collect and process management information across the entire library system and make such information/data available on demand.

In some cases, libraries are also benefiting from the integration of library systems with other administrative and information systems, i.e. financial system, personnel system, etc, operating within the parent institutions.

In addition to materials that are acquired from outside, university libraries also collect a lot of materials published

locally. Most university libraries have special collections of local materials such as theses and dissertations, research reports, examination papers, conference papers, newsletters and seminar papers, journal articles by academic members of staff. ICTs have made it possible to provide access to these resources in full text, accessed via the institutions' intranet, extranet or over the Internet. This is being done through Institutional Repositories (IRs).

### Research Study

Institutional repositories involve different stakeholders, each bringing different contributions to the repository, and librarians are among the key stakeholders in institutional repository projects. Librarians bring skills and standards required to manage digital information resources and work towards continued preservation of and access to digital resources.

Library 2.0 is a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services are delivered to users. The focus is on user-centered change and participation in the creation of content and community. The concept of Library 2.0 borrows from that of Business 2.0 and Web 2.0 and follows some of the same underlying philosophies. This includes online services like the use of OPAC systems and an increased flow of information from the user back to the library.

With Library 2.0, library services are constantly updated and reevaluated to best serve library users. Library 2.0 also attempts to harness the library user in the design and implementation of library services by encouraging feedback and participation. Proponents of this concept, sometimes referred to as Radical Trust expect that the Library 2.0 model for service will ultimately replace traditional, one-directional service offerings that have characterized libraries for centuries.

To keep up with the increasing complexities and the quantum of knowledge in the field of science and technology, these libraries need to be fully automated. This is necessary not only to keep track of the available literature, both in form of books and periodicals but also to lend a helping hand to scientists and technocrats by providing them with access to specialized electronic databases. The users of today's libraries not only require information but also they want to spend minimum time in acquiring that information. Therefore, automation of libraries and specially S&T libraries is a must.

In academic environment, library is a place of intellectual stimulation and knowledge centre. Until 1980s, the information seekers were greatly dependent on print resources and libraries were unique places for provision of such information. The past two decades have seen a great deal of change due to ICT resulting in a demand for new pattern of scholarly information. These technological advancements have made significant impact on the growth of knowledge and unlocking of human potential. In library environment, the impact is clearly visible on information products such as changing document collection, the storage media, and format; process/functions such as automation of library in-house operations, resource sharing, reprography, communication, internet technology, search engines and instant message, and

quality of service; people-users and staff such as choice of sources, death of distance, diminishing time zone, remote access, basic skills, on-line search, and duties and responsibilities of the library professionals.

### Discussion

Technical institutions concentrate on applied research and the results of such research find immediate applications for the betterment of the society like medicine, agriculture and engineering research personal etc. Information is a vital element for these applied research set up. Information is essential for any research in various contexts as it informs about the research so far held in a particular field on a particular problem, points out similar solutions found for similar problems and unveils the knowledge base to serve the current and retrospective information needs of researchers.

Technical institutes in the country were using manual means for collecting, processing, organizing and servicing information sources and for delivering information services. But the spread of computers and other information technology gadgets: and their easy affordability by institutions has facilitated libraries and information centers in the country to acquire state-of-the art technology for automating information organizations and services.

Education is the most important ingredient of socio-economic development of a society. So, advanced industrial societies provide access to education as a matter of right to all citizens. Education and training are forms of capital accumulation in the process of development. Education, especially higher education, and training in specialized branches of knowledge has an unbroken tradition in India that can be traced back to ancient times from the Gurukul system of primary and middle level education to ancient system of universities like Nalanda and Taxila.

Presently, in India there are more than 300 universities and university-level institutions including traditional and technical universities. These universities provide education in diverse fields like Agriculture, Forestry, Dairy, Fisheries, Veterinary Science, Medical Science and Engineering and Technology etc.

It is at the higher level of education, the library becomes more central to one's academic needs. The development of a student, according to his capability, is possible only when unhindered access to information is provided.

Various education commissions and educationists have used a variety of impressive expressions to highlight the pivotal role; a library has to play in an academic institute. 'The heart of the university', 'fulcrum of university education', 'laboratory of the learned', etc. are examples of such expressions.

Dr. S. Radha Krishnan, as chairman of University Education Commission, stressed on the significance of university library in higher education as: "The library is the heart of all the university's work, directly so as regards its research work, and indirectly as regards its educational work which derives its life from research work. Scientific research needs a library as well as laboratories, while for humanistic research the library is both the library and the laboratory in one. Training in higher branches of learning and research is mainly a question of learning how to use the tools, and if the library tools are not there how can the students learn to use them. Both for

humanistic and scientific studies, a first class library is essential in a university.”

Earlier, institutions in the country were using manual methods for collecting, processing and organizing various information sources and for delivering different information services. But with the advent of the computers and other information communication technology (ICT) gadgets and their easy affordability by institutions, has facilitated libraries and information centers in the country to acquire computer systems and communication technologies for the automation of information organisation and servicing.

### Conclusion

Information technology is an interesting phenomenon. It provides a forum for predicting the future of libraries. Some have predicted that technology will cause the demise of libraries, as professionals currently know them. These are the same experts, who in the 1960s were predicting the end of books on teaching machines and new media. Important advances were made, but the extravagant forecasts failed to materialize.

The most talked about subject among librarians today is the need for application of ICT in automating libraries to meet myriad information requirements of the present changing society. Libraries and librarianship are undergoing rapid transformations to meet the demands of fast changing information requirements of its users. If sincere efforts are not made to meet these challenges, librarianship will definitely become obsolete soon. Traditionally, the LIS professionals have been doing all library operations manually and the curriculum of the library and information science courses in the country are not in consonance with the emerging requirements. Many librarians, therefore, are really in a dilemma where to start and how to proceed, to adopt the newly emerged situation.

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