Article : Library Automation : Automation

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Introduction :

The information technology scenario is undergoing a vast and fast transition during these days. The world of information is at our fingertip now. This technology has changed our daily life and it has become much faster, simpler, and efficient. Over the last two decades the libraries have witnessed impact of information technology that has been affecting the structure of the services to a great extent.

What is automation? :

Automatic operation is opposed to manual operation and is meant for controlling of a process, or a system automatically without human interface.

Need of automation: :

Today, the single most important issue for libraries is managing the change without loosing their identity. Change is nothing but a transformation of today's requirement to tomorrow's performance. It is the only thing that has made possible the journey of libraries from storehouse to the stage of information centers.1 Technology, quality, marketing and costs are the major change elements, out of these, quality is easy to recognize but difficult to define1. IT plays key role in achieving total quality. Library automation helps in managing diver's library resources and provides better and wider access to resources. The staff storage has become everywhere in library.2 Therefore complete automation in libraries has become the need of the hour because shortage of staff will not adversely affect the services and functions of the libraries in automated environment.

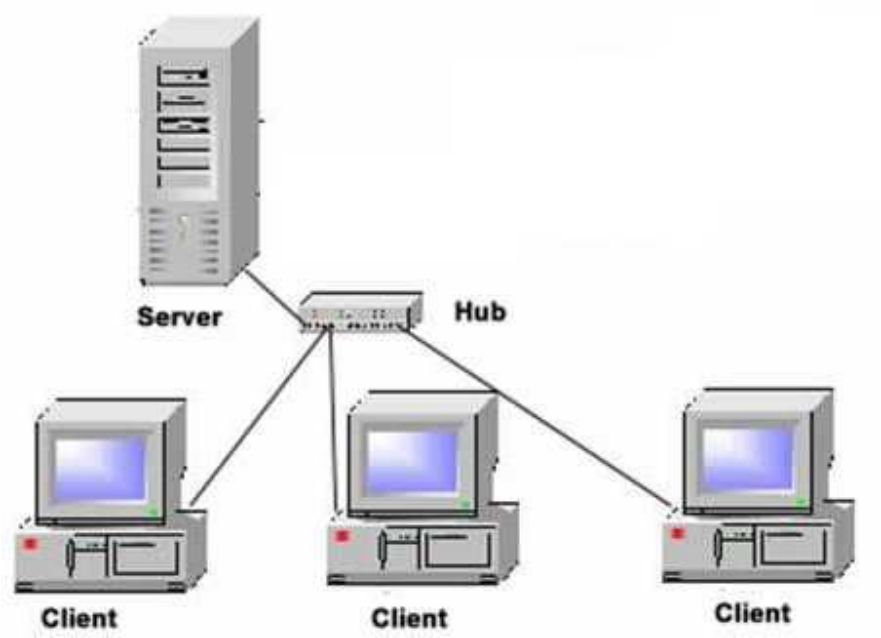
Library automation :

The history of library automation is sufficiently old now. It started in early fifties in US. Library automation is where various library functions are operated by

using electronic devices and system application. Library automation started in late 70s in few special libraries, has now reached most of the university libraries.5 It is yet to take off in college libraries in India. Library automation deals firstly with automation of library functions and secondly digitization library collections. Automation of functions aims at automating almost all technical and user based functions like, collection, processing, storage, acquisition, circulation, serial collection, retrieval, dissemination, budgeting, reference and transmission for all types of information centers. Library automation not only improves the image of the library and staff but also provides additional services to the users with existing staff.

Library automation is divided in four major parts:

1. Preparation of bibliographic database
2. Computerization of house keeping operations
3. Networking and acquisition of materials in digital forms
4. Digitization of library documents.



Automation of back-office functions :

After an extensive period of showing conversion the back-office operation modules such as cataloguing, ordering, and serial control have been initiated one by one. The major challenges of this phase of the project were the training and motivating the assistant staff and make stronger the infrastructure with necessary software and hardware components.

Automation of front-desk operations :

Automating the front-desk operations is a very vital turning point to any library. In addition, unlike other operations the library had to spend a lot of time and money on barcoding the membership and the resource collection.2 However, the parallel conversion, where the old system is allowed to run parallel with the new system for some time to see the new system over the old system before parting with the old system.

Hardware required for automation :

Pentium IV with 845 GVSR Mother Board, 80 GD hard disk, 256 MB DDR RAM, CD Drive, Floppy Drive, printer etc. Saurashtra University is having prolinet M L 150 G2, Dual processor, 1 GB RAM, 1 GHz hard disk. 6

Networking :

Networking revels a large number of publications through accessibility of catalogue databases using OPAC interfaces. The concept of electronic library offering direct access to user from their desktop is a reality. Library OPACs have had a great impact in networking. It is essentially a gateway to a universe of information resources, electronic as well as printed. A network facilitates distribution and publication of electronic journals and other electronic documents at provides end user access to other database. With the development of computer based network systems (LAN, MAN etc) the use of automated library systems have developed into much more beneficial terms for both library management and users. The library management through network system, have proved efficient in house keeping and in information dissemination depending on the network type

status and topology.

Selection of library software :

Library should consider low-priced resources for automation like; CDS/ISIS is best suited as it involves minimum investment on both hardware and software. Once a database with bibliographic details is developed, the same data can be used for circulation activities.4 Here the selection of software becomes crucial because CDS/ISIS can efficiently handle only the cataloguing system. Following criteria might help the librarians to select the right software for other housekeeping operations:

• Who are the developers, whether an institution, or reputed company or few individuals. The preference is for institution and second preference is for the reputed company. One has to be skeptical about the software developed by individuals as there will be no continuity

• How many times the software has been revised since the time of its first launch.

• How many parameters are available for each module. More the parameters better will be the flexibility and needs no or minimum customization.

• Whether the software has facility to import bibliographic data available in ISO2709 format and similarly export of data in this format

• Training and guidance after installation

• Whether available on major operating systems.

• Whether it is web inter faceable

• Whether it can be interfaced with the e-mail system of the campus network.
• How many installations it has got in the country, since when and major clients.
• Whether it can offer OPAC and different rights to different logins

Library software :

SOUL
Alice for Windows
Libsuite
CDS/ISIS
Libsys
E granthlay

Obstruction in library automation :

Human resources are the most primary and most crucial factors in determining quality level of a library. The most of the libraries are still under the influence of scientific management, which gives more importance to management than employees. As per quality exports this will degrading to human spirit and moves employees away from basic responsibility for the quality of the work. Moreover lack of staff developments programs and resistance to change in library staff are the by products of hierarchical, technical, rigid, static and seniority based system of libraries. Admits cost conscious and cost effective slogan and regime, libraries cannot bear one time and increasing operation cost of automation. Due to insufficient funds, routine work and collection development of libraries are being affected adversely.8

Justification in library automation :

The computer has proved its success in the fields of library acquisition, cataloguing, classification, circulation, serials control, and information storage and retrieval activities. Many new services like SDI and current contents service have been initiated with the help of the computer. The question is, what are the hurdles and obstacles to a progressive situation and how can these hurdles be removed?3

Library should consider low-priced resources for automation. The open source software systems have entered the mainstream software market a few years ago to provide an alternative solution for libraries that are seeking for low cost solutions.

'Open source software is software whose source code is made freely available for inspection, modification and incorporation.' 'The open source approach has the advantage of giving libraries direct control over the technology they use; System Librarians can have a direct role in developing the software and can focus on functional enhancements which are of local value but which would not be viable commercially for a mainstream supplier.' The next problem is to provide the training requirements of the library staff and take necessary events to introduce suitable training.7

The ways and means to gain the support from the administrators of parent organizations and the local government is very important issue that librarians should consider seriously. It will not be very difficult to convince the administrators, government officials and donor agencies to fund the automation projects and formulate of a national policy if the librarians get together and voice the potential of automated library systems in serving the information based society, which is one of the major goals of many third world governments for the next decade.

Conclusion :

'Technology offers libraries an ideal solution to a number of problems of managing a modern research library. It offers speed, accuracy and efficiency in the processing, presentation and retrieval of catalogue information.' Therefore, the librarians cannot close the eyes to the ever-increasing pressure to maximize the technological capabilities in order to keep up with the publishers' offerings and user demands.

The capacity of the new technology in enhancing the library service is not limited to automation of library functions and providing online access to library catalogue. There are many more advanced features. The technology is successfully used now in many libraries around the world for security control. Electromagnetic security control system is very effective technology that identifies the materials, which marked with a tiny tape hidden inside the spine of the material, by the antennas at the library exist. 'Radio frequency identification (RFID) systems have been in use in libraries for book identification, for self-checkout, for anti-theft control, for inventory control, and for sorting and conveying of library books and AV materials.' (Kern, 2004) These applications can lead to significant savings in labor costs; enhance customer service, and lower book theft etc.

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