



## University Library & Its Automation

Dr. Jignesh C. Makwana

Assistant Professor, PG Department of Library & Information Science, Sardar Patel University, Vallabh Vidyanagar, Dist: Anand, Gujarat, PIN: 388120, Phone: 02692 26880, Cell: +91 99243 37391, E-Mail: [jc\\_makwana@spuvvn.edu](mailto:jc_makwana@spuvvn.edu)

### Abstract:

It is not merely an imagination that house, office, library etc. can be operated by machines i.e. non-living things. A blind man can rob anywhere, if breaking traffic rules will make you punish by a challan delivered at your doorstep, No matter where you live but you get the entire essential, important and required information instantly in a fraction of seconds resulting into saving time, money, energy etc. May be it seemed like building castle in the air, to count the stars in the sky and to rub the Alladin's lamp. But in today's life, science and technology has changed the whole scenario and in future more and more miracle like things/ events will happen. Library field and profession are also included in the above info-highway and everything on your fingertip. So the main thing is change. Everything is changing every day. Also the duties of librarian usually change according to the situation.

**Keywords:** Higher Education, Academic Institute, University Library, Technical Process, Library Services, Library Automation, Digitalization

### Introduction

Man is a social animal and it gets cultural heritage living within the society. In the cultural development process, general knowledge is necessarily improved. One of the important thing about our sub-conscious mind is that it is limit-less and to satisfy sub-conscious mind the sources are limited, that is why option of selection is there human desire to know more is responsible for clarification of itemization in the field of education starting from pre-primary primary, secondary, higher-secondary graduation (collage) university education etc are available in different category education offered in their institution is not sufficient to import knowledge for growth parallel to this library concept is developed to provide addition study material in the form of reference material the education offered in the university is considered or higher education. In order to provide the additional information to student professors lecturers researches etc. University library need to be modernized /atomized at regular intervals under the circumstances role of library becomes more responsible.

Present time is considered to be the era of technology i.e. Digitalization of all the available resources of information and change is happening in everyday life. On the other side information blast is and duplication of information is noticed everywhere for library, it is one of the tough job to have books on different subjects of authentic authors as it helps/guides students - researchers exactly and properly. In addition to other collection, managing-maintaining the available books and timely up-dating library collection is very important keeping up-dated data-base, like alphabetic as well

as subject-wise. So as to cater instant services as and when required. This is an ongoing process, in that process new technology adopted in place of old traditions priority is to be given to attain the work with saving of time, money and energy, by completing the work with smoothness, accuracy and long-lasting positive effects. Otherwise it is not possible to keep pace with the changing times. In this connection automation i.e. Atomization of library is not only necessary but also essential, that is why role of computer is unavoidable in library automation.

The computer is in danger of becoming, if it has not already become, the librarian's macho symbol. To admit to working in a library which is not computerized is to imply that your place of employment is small or backward and such an admission is usually hastily qualified by the explanation that computerization is being considered.

The purpose of automation in the library is to provide a system that will enable the librarian to effectively monitor the movement of books and provide a quick index search of a book held, using simple search parameters such as author, title, subject matter of a publisher.

The libraries must improve the quality and efficiency of their services to achieve bargaining power for more resources. Even small improvements can go a long way in convincing the managements of the parent organizations, of the need for more investment in training and new equipment. The infrastructure in the form of better communication networks, facilities for database development, easier access to hardware and software etc. is now slowly being built in India. The recent liberalization of India's investment and economic policies will no doubt provide a further impetus for private sector investment in information technology and its application. This means that our libraries should give the highest priority to improve their services and ensure easier and wider access to documents and information for their use. The only way to cope with the rising cost of the information material and increased demands from user is by better co-ordination, co-operation and sharing of resources with libraries having similar interest through library automation. A vital pre-requisite for that is good agreement and better conformity to the best common standards for library processes and library automation.

### **Higher education and libraries**

A man cannot learn everything in his childhood. It means that in that age he is understood and taught. Similar is the fact with education field. Where a person learns more and more by guidance from others, later on he develops a capacity of understanding and learning independently. In the field of education also, it imposes more on self-learning.

Dr. Samuel Johnson once remarked "I cannot see that lectures can do so much good as the reading of books from which the lectures are taken. I know nothing that can best be taught by lectures, except where experiments are to be shown."

Education field is mainly divided in 3 different stages (levels) viz. Primary, secondary and higher secondary. If we say in the context of higher education then we can say we are passing through an era of information revolution. When the science and technology is taking big leap, it is necessary to adopt changes (in such a way that the people of

India should be benefited more) fulfilling the expectations of the Indian citizens for the betterment of India. In the coming 21<sup>st</sup> century, it is the need of the hour in the learning process. Novelty is required and for the higher education is imperative because after all higher education is the root of economic, Social cultural and spiritual development. Higher education comprises off both principal wise and work wise. Many different subjects connected with typical problems (in present times) now-a-days, the structure of higher education is divided in the forms viz. Formal and informal, which edify the necessity of higher education.

Let us try to understand the two words 'higher' and 'education'. Education means to cultivate the habit of systematic way of living life to create better man and better society. "The word 'education' is originally derived from Latin word 'e' and 'duco', 'e' means out of and 'duco' mean extract out. In all, education means "to bring to the surface."

Mahatma Gandhiji defined 'education' as "in my opinion the overall development of great characteristic of body, mind and soul lying a child and man." Whereas higher education means to acquire the degree in a particular subject from a university and education may be personal (individual) or in group, direct or indirect, general or special, formal or informal etc.

In general higher education is obtained only from a university on a particular subject with its applicability. At universities service of expert faculty, laboratory, practical workshop and library facility is provided. At outset we can define education in a different way as under

- Creative imagination and intellectual growth.
- Solution of social disputes.
- To procure the concept of an ideal family, our culture and heritage/old traditions.

When young men and women enter a university they are confronted with three important changes.

- The first change is the medium of instruction from the mother language to English though there has been a very strong trend in favor of teaching through the mother tongue.
- The second change that students have to face is the method of instruction. Whereas at the high school stage they were spoon-fed by the teachers, at the university they have to be more self reliant.
- The third change that the university going youth experience is the nature of the course of study. The approach to learning has to be more book – centered and not only textbook centered.

The objectives of the university are

- Conservation of knowledge amassed from times immemorial.
- Dissemination of this knowledge through teaching, publication and extension programmes.
- Extension of t he bounds of knowledge through research work by teachers and other research workers.

- Helping the teachers and the taught to achieve the highest academic honors and a life time of good reading.

Higher education can be obtained at university level/from university for which role of library is very vital. Library is immortal rich heritage for citizens of any country. When talking about library and higher education and there libraries are called information center. In modern times information centers are not only a cultural heritage but also collection audio-visual media for distributing knowledge and opening new dimensions for expanding the knowledge students, lecturers, professors and principles can utilize the library facility, reference books and other aided services are provided by these information centers. Now, we will try to understand the word 'Library'.

"A library is a collection of printed or written material arranged or organized for the purpose of study and research or general reading or both. Many libraries also include collections of films, microfilms, photographs, records, slides, and the like within the term of written of printed material."

- Encyclopedia of Britannica

The relation between higher education and library is deep-rooted and vast. It is essential to have a full flagged i.e. complete library to get the reference materials updated information of different courser/ studies in higher education institutes. It is the very pre-condition that an institute offering higher education must have fully equipped library. Higher education institutes require a library complete in all respects i.e. Printed books, e-books, documents on different subjects, which play vital role for its users. Also, it is necessary to know that how and why they are inter-connected with each other, it is important. It is presumed that in the mid of 19<sup>th</sup> century, library concept was in force in higher education institutes.

Higher education libraries can be defined as "In universities, higher education libraries are established and maintained to help and assist students. Generally, library building should be outside the University building. University, through its education system offering related services, in such a way that constant and continuous study material/reference books made available to all its users."

### **Automation Process**

If we want to define the word automation process in a simple format then we can say that, to perform any work with the help of machines and to get necessary assistance fast and safe. In all libraries there is a clerical side which while essential to the running of the library, makes no real use of truly library skills. There are letters to be written (other than overdue or reminders to book sellers); reports to be typed; references for present and former staff to be given; guides and booklet to be produced. On the financial side there are usually accounts to be kept locally (as well as centrally in the authority or institution); budget to be prepared; interim statement to be prepared; final year account to be presented; and possibly receipts from photocopying; fines; reservation charges; online search charges; and sale of publications; postcards or budes to be recorded and set against appropriate heads of expenditure. While these areas are not usually in the forefront of the minds of those aiming to computerize

libraries, they do lend themselves to this partly because they may be able to use software produced for general commercial applications.

In today's world computer is very useful important and one of the efficient machine and its use is unavoidable so that in automation work computer is essential. In America many other machines are use in addition to computer though computer is the main pillar of library automation computer and automation are very similar and sometimes seems like synonyms if we gather more information about computer and library, we can say that the computer has a central role to play in such future library system. As a reliable, competent, accurate and cheap manipulator or library information it can bring to fruition many idealistic concepts about flexible library services. In that it has the capacity to free human beings from much of the repetitive labor that is a necessary concomitant to library work, it can also give us the opportunity to provide personal service to real people.

“A computer system is an electronic machine for manipulating symbols. For our purposes we can readily make this definition more meaningful if we say that a computer can be regarded in many ways as being like a clerk. And if it is a clerk, then we may be able to use it to do clerical work in libraries more quickly, accurately and more efficiently than it is done at present. It might even be possible to teach it some professional or intellectual jobs. Being a machine it should not tire under heavy workloads, and it fact should become more efficient as the work load increases so that as library grows this can be accommodated without proportionate increases in staff.”

The relationship between the library and the computer is a change one. Computer science has been changing rapidly ever since its origins 20 years ago, and now the library itself are beginning to be changed under the influence of the machine. In a changing world librarians have a responsibility not only know about the ways in which libraries can use the techniques of automation, but also to be aware of the changes automation can bring to library service in the near and perhaps the more distant future. In this modern age, literature growth is enormous and the libraries are facing a lot of problems to provide the required information to their clientele. At the same time, the demand for nascent information is increasing. Secondary sources are being procured by almost all the libraries and are used for literature search. But the time lag between the publication of primary and secondary source is about 4 to 8 months. This time lag has great effect on the use of published information. Hence, it becomes essential to adopt more and more scientific and modern methods to improve and make libraries more powerful than before. This means using information technology in library activities i.e. automating the library operation.

“Dowlin pointed that librarians functioning in an electronic age need three kinds of preparation:

- Technical knowledge related to computers and communication devices,
- Readiness to introduce organization changes necessitated by technological innovations and
- Ability to deal with a wide range of people outside the library people who supply hardware and software.”

Because automation has affected most library processes to some extent, and in many cases has influenced the development of library policy. The effects may be seen in four general areas:

- Extent of cataloguing information presented to the users.
- Choice of information given.
- Arrangement of information.
- Typographical presentation of such information.

Taking into consideration, it can be said that library automation is a must for its users in providing instant service without wasting time. The process of automation mostly depends on its accurate planning and strict implementation so as to get every work and its process automatic. Unnecessary delay can be avoided and speed & accuracy is maintained by automation. Different stages of planning and implementation are as under.

- Initial study
- Specifications of requirements
- Design of the system
- Development
- Testing
- Implementation
- Running
- Review

With the help of above of different stages the work of library automation can be implemented in other fields also. In this fields housekeeping function and services are included. To provide better library facilities, the staff members are distributed in various departments and necessary work should be assigned to them and for that following are the different departments of library:

- Acquisition
- Cataloguing
- Circulation
- Periodical
- Administration
- Reference
- Binding
- Reprography
- Documentation
- Translation
- Publicity

In the above departments the process of automation save time , appointment of less staff , high quality work and smoothness helps the work today's libraries are becoming more and more user friendly likewise the duty of librarian and library staff is not nearly of watch man so that librarian and library staff are suppose to be well aware with automation process of library now-a-day's local national and international level the information collected through machine is possible due to automation that is

why it is required to thoroughly understand library automation. If we talk in respect of automation process in educational library,

The UGC in 1988 took the initiative to plan for a country wide academic library and information network called INFLIBNET and it has the potential to make a significant impact on library automation. Large libraries such as university libraries begin to retrospectively convert their catalogues in to machine readable form. The need to access MARC records on CDROM or other media to restructure such records for use in local systems will undoubtedly be acutely felt. This will make it essential for locally or commercially developed software to be capable of using mark records. Indian packages are still oriented mainly to be used by librarians and information specialists and not by the occasional end user student, teacher, researcher etc. The question of having the provision of on-line public access catalogues (OPACS) in libraries of India at the moment is academic one.

In short the libraries must improve the quality and efficiency of their services to achieve bargaining power for more resources. Even small improvements can go a long way in convincing the managements of the parent organizations, of the need for more investment in training and new equipment. The infrastructure in the form of better communication networks, facilities for database development, easier access to hardware and software etc. is now slowly being built in India. The recent liberalization of India's investment and economic policies will no doubt provide a further impetus for private sector investment in information technology and its application. This means that our libraries should give the highest priority to improve their services and ensure easier and wider access to documents and information for their users. The only way to cope with the rising cost of the information material and increased demands from users is by better co-ordination, co-operation and sharing of resources with libraries having similar interests through library automation. A vital pre-requisite for that is good agreement and better conformity to the best common standards for library processes and library automation.

### **Library automation Meaning and Definition**

What do we understand by Library Automation? Generally, it can be said that to use computer in library and to be connected with its network. Because automation process deals with providing requirements to its users. Automation process cannot be established within a day or two. Moreover, it requires planning, finance, staff, storage capacity, rich collection of information (from local, national and international level), computer software, hardware, staff training and also users to be educated to use the automation procedure available at the library. Automation is to use machine i.e. Computer in place of a person. Whereas in library automation use of computers and to perform the works of library and services provided to its users with the help of computers and other machines. In short, library automation saves time, money and energy by employing less manpower and giving best services within no time.

Let us have more details about computerization and library automation,

Automation means making the best possible use of available resources: man, money, material and machine (4M).

“Library automation is the use of automatic and semi automatic data processing machines to perform such traditional library activities as acquisition, cataloguing, and circulation. Library automation may be distinguished from related fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis.”

Now let us define more about library automation,

Using different technologies such as printing technology, computer technology, telecommunication technology storage and display technology, graphic technology, reprography technology etc. In the information field, is known as library automation.

Library automation implies a high degree of mechanization of various routine and repetitive tasks to be performed by human beings. With the advent of automation the human intervention is reduced to a great extent. The appearance of computer has greatly increased the library automation in addition to computers advancements; telecommunication and audio visual technologies gave way to new possibilities in information handling.

The most important feature of the information society is the use of modern technologies effectively and efficiently, for various purposes. Such technological breakthroughs are changing the shape and structure of business, industry and government. Mechanization of library housekeeping operations, predominantly by computerization is known as library automation. The advancement in technology will continue to improve the effectiveness of the libraries and serve as an indispensable tool for handling the messages between libraries and library patrons to librarian and vice versa.

From the above facts it can be made clear that in everyday life, wherein the use of manpower is very less or libraries having total automation system. Today library automation has attained very high position and it happened due to computers and other machines only. By using these machines libraries serve in many ways to its users very fast and whenever needed and this is the main objective of establishing a library or an information centre. It does not mean that with the use of machines, problem of unemployment arises but where the services are required fast, accurate, in a fraction of time and in a little space more and more data/information can be collected and maintained for a long time, automation is a blessing.

### **Need of Automation**

In university libraries for automation following fields are to be considered,

- Collected development
- Serial control
- Management and non book material
- Thesis and dissertation processing
- Cataloguing and subject indexing
- Reference and documentation service
- Circulation

- Financial control (Budget)
- Personnel management
- Stock verification and inventory control
- Library statistics and research

We already know that library is a trinity of collection of information, organization of information and dissemination of information. Computerization of all the library housekeeping operations is called library automation and the need for automation has several reasons. Need of computers is present in all areas depending upon its usages. They range from acquisition control, serial's control, cataloguing and circulation control. They are also used for library manager's evaluation of reports; statistics etc. For the good administration of the library computers are used in all levels of workflow. Above all the unique characteristics of computer made it the right choice for the library world.

The factors responsible for the use of computers consists of all the reasons including economical and technological. The factors are,

- Information explosion
- Availability of information in machine readable form
- Multi use of machine readable records
- Economic feasibility
- Routine jobs
- Increase in users
- Speed, accuracy and storage capacity

The necessity of Library automation can be easily understood from the above points. But to understand it more easily and clearly, one can say that when compared with manual library system automation is very essential because accurate, fast, easy, instant service, authentic and updated source of information etc. Analysis of required information/ data can be made available instantly in any required format and economical in the long run. It is not at all easy to keep pace with the drastically and frequently changing technologies but looking to its worldwide acceptance automation is undoubtedly very useful.

Traditional libraries are becoming digitalized very fast. Moreover, they are working for catering services to its users 24 hours a day and seven days a week i.e. 24x7, just like ATM. Audio-visual media has taken the place of print media which has prepared a new path of drastic change for the libraries and information centers of today and tomorrow.

Traditional method to get the information, time consuming and costly system to make changes in traditional system and sometimes not possible to collect and give the information in required format, these are the drawbacks of our age-old, traditional library system. Against this, fast, accurate, efficient, best use of the available space i.e. Collecting and maintaining information thousand times better in a proper way, which helps the library staff, users and the collection of books/documents for the library. The above benefits are for and to the triangular network of users, library staff and collection of information in the form of books/data/ documents/ articles.

In the library triangle of users, staff members and reading material lying in different forms. One of the important duties of the library is to satisfy the need of information to the user. Many new changes have occurred on the part of the user. Library staff means those library professionals, who have to administer and to manage the available information with them. The library staff does not have sufficient knowledge to utilize plenty of ready to use resources and when the five basic library principles are not fulfilled then the words, library and automation not merely becomes the series of giving and taking information, but expand its area and makes possible to obtain information from international level.

If we try to understand the importance of library automation, means use of computer at every stage / in every field. Computers can collect and store plenty of information in many formats. Out of the technical works of library, correspondence of placing of order for books and managing of finance, require speed and accuracy. Which is not at all possible without machine and there are more chances of occurring mistakes and wastage of time.

At library, catalogues are placed systematically arranged in the Cabinet to facilitate the users. For this, expert library staff, sufficient finance and to keep it modern, sometimes it becomes boring and monotonous. And also the user gets irritated on not getting the required information quits library with gloomy and wrong impression, which show the importance of library automation.

In the library circulation counter, it is important that minimum time to be consumed to find and to issue the book, which is not always possible by library staff, but by automation. In present times, bar-coding of books in libraries help both staff and user to easily trace out the required books in few seconds, proves the need of library automation.

To provide different services in libraries and in information center, like bibliographic services, indexation service, abstracting service, translation service, current awareness service, selective dissemination service, Xerox and reprographics service etc. are very times consuming, costly and sometime not feasible at all.

It rotates us round the globe while sitting in a chair in a library or in information center through national network of library, international network of internet which shows us the world in finger-tips. Give an opportunity to walk through libraries, of the world sitting in library with the help of library automation.

From the above points, it is crystal clear that library automation is not necessary but essential. As it is easy, fast, accurate, high quality performance, watch on each and every work, economical as compared to human being/man-power. Consistency and connectivity, safety and security give priority to be needed for library automation.

### **Conclusion**

Library and Information Centers are rich source of knowledge. Knowledge is wide-spread under different heads, in different form, and in many languages. If the above said information's could not be used or updated properly, then the society or the users could not get benefits of the main objectives of a library, because the aim of the library is to provide the required details/information fast and accurate. This is possible only

when the library is well equipped, man-power is properly trained, books and periodicals are easily made available.

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