

## Library Automation : Issues and Applications

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### Abstract

The emergence of new technologies has made information accessible at fingertips. This changed scenario compelled the libraries to embrace automation to cope up with the day-to-day information needs of their user community. Information Technological (IT) is a wonderful gift provided by the present day technological advancements and innovations. Due to the adoption of new technologies the libraries are moving manual to automate for provide better library and information services to the right users in right time at the earliest. Library automation refers to automation of housekeeping functions such as acquisition, cataloguing, circulation and serial control. Automation is necessary to handling of increased volumes, library activities and improved control over the collections of library. The speedy changes in the Information and Communication Technology (ICT) are creating new challenges for library and information science professionals. Library automation motivates the library staff a lot. Library automation also helps in development of human resources. A well-equipped and manage library in indeed the foundation stone of the modern educational structure. This paper highlights on library automation, objectives of library automation, development of library automation, need & benefit of library automation, use of computer in libraries, requirements of library automation and areas of computer application in libraries.

**Keywords:** Meaning, objectives, need & benefit, use of computer and housekeeping operations.

### •Introduction

The library is the heart and main information resource center of any institution. Library automation means every service work is completed by computer instead of hands, thus it can enhance drastically the work efficiency and improve the serving quality of library. The library automation puts all major functions of the library together including acquisition, cataloguing, periodicals and circulation. The modern age of information explosion poses stiff challenges in providing right information to right users in right time. In such situation Information Technology (Library Automation) comes to rescue of libraries and information centers. Therefore, library automation is important and necessary to handle the vast amount of information and for providing faster, accurate, precise, efficient, and effective information and services as well.

### •Meaning of Automation

The term “automation” was first introduced by D. S. Harder in 1936, who was then with the General Motor Company (GMC) in the US. He used the term automation to mean automatic handling of parts between progressive production processes.

According to Webster's Third New International Dictionary of English Language. Automation is, “The technique of making an apparatus, a process or a system operates automatically.”

According to Encyclopedia of Library and Information Science, “Automation is the technology concerned

with the design and development of process and system that minimize the necessity of human intervention in operation.”

#### •Meaning of Library Automation

According to Encyclopedia of Library and Information Science, “Library automation is the use of automation and semi-automation data processing machines (computers) to perform such traditional library housekeeping activities as acquisition, cataloguing, and circulation. Although these library activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval, automatic indexing and abstracting, and automatic textual analysis (Allen Kent, 1977),”

Library automation, stated in single term, is the application of computer and utilization of computer based product and services in the performance of different library operations and functions in provision of various services and production of output products.”

#### Library Automation: Issues and Applications

Library automation may be defined as the application of computer to perform conventional library housekeeping activities such as acquisition, cataloguing, circulation, and serial control, reference services. Automation is used to reduce the amount of staff time devoted repetitive activities.

#### Objectives of library Automation

- To full fill needs that cannot be achieved by manual system.
- Sharing of library resources.
- Issue, return and renewal of books can be performed quickly and searching of documents through online public access catalogue (OPAC) which is a powerful tool of library automation.
- Time and human power saving with qualitative services.
- To reduce the repetition in technical processes of housekeeping operations.
- To provide access to information at a faster rate.
- To improve the level of service and quality of output.
- Improvement of human services
- Recording keeping activities of library can be done effectively in automated environment.
- Preparation of repots and correspondence.

#### Need and Benefits of Library Automation

Need and Benefits of Library Automation are as follows:

- Improved productivity/efficiency;
- Library automation improves the efficiency of library staff;
- Capacity of handle any amount of data and information;
- Avoid duplication of in housekeeping operations;
- Avoid of wastage of time in repetitive jobs;
- To improve the quality, speed, and effectiveness of services;

- Increasing of numbers of users and their needs;
- Availability of information in various formats;
- Overcome geographical and other barriers to communication;
- Library automation improves the efficiency of work;
- Impact to communication technology.

### **Uses of Computer in Libraries**

The capability of computers associated peripheral media and its application in library activities and services led to highly significant quantitative and qualitative improvement especially on online technology. The role of computers and their associated peripheral media are being increasingly used in library and information services for acquisition, storage, manipulating, processing and repackaging, dissemination, transmission an improving the quality of products and services of library and information center. Computer has greatly influenced every moment and walk of life today. Computerization of library system has become need of the hours. Since the inception of the computer, there is on field is left without computer. Major working system of the library, the acquisition, the cataloguing, the periodicals and the circulation are being covered by an integrated automation software package.

Utilization of computer and related techniques make the provision to provide the right information to right reader at the right time in a right form in a personal way. Automation of library activities provides the services very efficiently, rapidly, effectively, adequately and economically.

### **Requirements of Library Automation**

The following are the basic requirement for the automation of libraries:

- **Adequate Collection:** Collection of a library forms the basis for library automation. Larger collection is the more need of automation to increase efficiency of the library services.
- **Adequate Financial Assistance:** Computerization needs money. The expenditure is required to be made at the time of installation, purchase of library software, and training of the staff, entry of library data and also for running the facility as a matter of routing.
- **Computer Hardware:** There are many types and efficiencies of computer available in the market. Moreover, the libraries also have various categories. So, the computer to be purchased for the library should meet all specific need of the library. The technology used in the computers is changing very fast. Therefore, the latest model of the computers with adequate speed and memory should be acquired from the market to be sued for automation in libraries.
- **Library Software:** Library software should be user friendly and according to the need and size of the library. There is such software also which offer management of multimedia collection and also allow remote access not only from the libraries but also to the libraries from one's work place. Although these options are costly and out of reach generally for an average library, but for the medium and big libraries being larger enough may go for them for better result.
- **Training of the Staff:** Library staff need training in handling the computer hardware, software and performs the data entry work. Training of the staff in maintenance of the hardware and software and also in extraction of the required data from the documents is an essential part of the work of database creation.
- **Maintenance and Development:** During the period of using computer, there may be some disorders in

computer hardware, software and databases. For this purpose, professionally trained staffs with computer background are employed in large libraries.

### **Areas of computer Application in Libraries Acquisition**

Acquisition deals with suggestions, selection and approval, checking of duplication of documents, selecting vendor and then ordering. Sending reminders for items not received, checking of the material received and then sending bills for payments. Then document is sent for accessioning.

Acquisition module of computer system should include the following items:

- To receive the list of items to be acquired
- To check the duplication of the stock;
- Printing of the supply orders for vendors;
- To check overdue of order sending reminders;
- To check the supply of orders

### **Classification System**

Cell numbers of the books are assigned manually and relevant call numbers for each book is to be fed in computer through keyboard. Computer can help in alphabetical classification only by taking key word from acquisition module.

### **Cataloguing System**

Cataloguing or the technical process is one of the most important works of the library. In cataloguing the various approaches of users is taken into account for searching of books. Cataloguing module of the library must have the following features:

- Integration with acquisition module;
- Ability to print catalogue cards;
- Able to satisfy the various approaches of the users;
- Ability to solve, save and print search result;
- To directly catalogue a book and integrate the cataloguing information with acquisition module;
- Access to membership directly from circulation program.

### **Circulation System**

Circulation is one of the essential services of the library. It deals with the membership registration, issue & return of the documents, reservation and renewal of the documents. It also deals with the over dues, reminders, collection of fines, maintenance of circulation statistics and other Inter Library Loan (ILL).

### **Functions of Automated Circulation System**

Circulation systems have the following modules:

- Membership registration and renewal;
- Issue & return of the documents;
- Provide detail information of borrower and borrowed document at one instance and renewal of the documents;
- Tracing of documents;
- Maintaining records of reserved document;

- Printing of over dues reminders;
- Providing the daily statistics of circulation.

### **Serial Control**

Serial control involves a collection of many complex jobs from acquisition of periodicals to passing of bills. Sending reminders for the non-receipt of issue. Serial control deals with storing and circulating of the individual issues and binding of complete issues.

#### **Automated Serial Control has the following Modules:**

- Ordering the new serials and renewal of old serials;
- Registration of the issues as and when received;
- Sending reminders for missing issues.

### **Library Catalogue**

Catalogue is the mirror of library holdings. The catalogue has show what items are in the library and where they are located. All the library resources can be searched by using the catalogue. These resources can also be accessed from the outside library using the implementation of automation. OPAC enables searching through Author, Title, Key Words, Publisher, and Class Number etc.

### **Conclusion**

The most important factor leading to library automation is information explosion and growth in the collections of libraries. Library automation has helped to provide easy access to collections through the use of computerized library catalogues such as On-line Public Access Catalogue (OPAC). Automation saves the efforts, time resources involved in manual operation of libraries. In the present worldwide environment of knowledge, library automation is necessary to gain benefits like increased work speed, accuracy and reliability, budget-saving, and decentralization in access, storage, and retrieval. It is very important for libraries to interact with computer professionals as the library automation at all levels needs good coordination among both these professional.

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