Needs and Purposes of library automation: A Review

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Abstract

Library is considered as heart of institution and soul of any learning institution, which is pivot of teaching-learning process. A well-equipped and well maintained library is the foundation of modern education structure. College library plays an important role in providing overall library and information services to the patrons. College libraries are the hub of the teaching and learning activities where students and teacher scan explore the vast resources of information. In the traditional libraries users have to send more time for searching a small piece of information and for that have to depend mainly on the library professional or library staff. But in the age of information communication technology, computers are being used for day-to-day housekeeping activity of the library which saves the time avoid duplication of work and make the library service smooth and effective. In the information technology age, the academic libraries are expected to use information and communication technologies (ICT) to provide information more expeditiously and exhaustively than before. Computerization of library 'housekeeping" operations is an important activity in this context, "Automation", when used in a library or similar environment refers to the computerization or mechanization of activities.

Key words: institution, Library, environment, Automation, computerization etc.

Introduction

The word 'library automation' is being used in literature for the last four decades. A perusal of the literature would indicate that many authors have not tried to define the term explicitly. They use the term 'Library automation' to mean the use of computers as an aid for library activities. However, some authors have tried to define the term. For instance Markers on (1967) says "Library automation in the broadest sense can be taken to mean the employment

of machines for library processes. In general, however, library automation has come to mean the application of computers and related data processing equipment to libraries.

Definition of Library Automation

McGraw–Hill Encyclopedia of Science and Technology (1982) defines automation as "*a coined word having no precise, generally accepted technical meaning but widely used to imply the concept,, development ˝ or use of highly automatic machinery or control system.*"

Review of literature

(Upadhyay, Pandey, & Shrivastava, 2012) Studied "*A Review of Status, Problem and Prospects of Library Automation in Engineering Colleges of Jabalpur City*" and found that Library is Heart of any institution. It is soul of any learning institution, which is pivot of teaching-learning process. College library plays an important role in providing overall library and information services to the patrons.

(Kamble, 2016) Studied "*A Study Of Library Automation In Pharmacy Colleges Libraries Affiliated To Jntu, Hyderabad*" and observed that We live in an information age, and libraries are expected to use Information and Communication Technologies (ICT) to provide information more expeditiously and exhaustively than before. Computerization of library "housekeeping" operations is an important activity in this context. "Automation," when used in a library or similar environment, refers to the computerization or mechanization of activities Jawaharlal Nehru Technological University Situated in the heart of the Hyderabad city at Kukatpally a major landmark- Jawaharlal Nehru Technological University, Hyderabad has an environment of academic excellence with 'A' Grade accreditation by NAAC (National Assessment and Accreditation Council).

(Md. Ashikuzzaman, 2014) Studied "*History of Library Automation*" and found that In 1930s, the efforts of library automation system was started by Herman Hollerith of the US Census Bureau who invented punched card technology, with the help of Dr. Jolul Shaw Buildings, the then Director of Surgeon-General's Library. In 1935, Dr. Ralph H. Parker Created a circulation control system at the University of Texas at Austin using the Hollerith Punched Card or IBM Punched card equipments. However due to slow progress in the

development of computer systems the efforts was put into experimental project of library automation system.

(Chaudhary, 2016) Studied "*Library Management System: An Open alternative*" and observed that Library is defined as a place in which books, manuscripts, recordings, films, or reference materials are kept for private or public use. Typically, a library must be able to handle some housekeeping actions such as acquisition, interlibrary loan, cataloging, circulation, serials management, statistical reports and references. Library management system software is designed especially to handle such housekeeping tasks.

(Waghmode, 1936) Studied *"Library Automation"* and found that the term automation is introduced used first D.S. Harder in 1936. He defined it as, "the automation is handling of parts between progressive production processes. Since then the term has been applied to a wide variety of automatic machinery and automatic systems. And is action for human efforts of intelligence. Automation work is used for automatic technical process.

(Adhe, 2014) Studied "*Library Automation: Issues and Applications*" and observed that 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 computer advancement, telecommunication and audio-visual technologies gave way to new possibilities in information handling In India; the use of computers is limited to only some specialized libraries unlike the case of developed countries.

Needs and Purposes of library automation

The motto of Library Automation is to provide the right information, to right person, in right manner, in right time. While justifying need of library automation more than cost-effectiveness the benefits derived by the library users become the major consideration. Since library does not happen to be an economic entry such benefits need to be looked at in a different perspective. To appreciate the advantages it becomes necessary to highlight the different levels of library automation. For convenience it can visualized at following levels:

1**. Library Cataloguing system**: The automated library cataloguing system means creation of bibliographical information in MARC standard format for most of the library activities and

services such as acquisition, reference, bibliographic service, inter-library loan, cooperating cataloguing etc..

2**. To reduce the staff:** Library automation means minimize the intervenes of human activities and maximizes the uses of latest technology. It's eliminating the repetitive work and cumbersome job of printing the card catalogue. It serve the stationary and space.

3. Increase the staff productivity: It increase the efficiency and productivity of library staff by using copy cataloguing, sharing of bibliographical records, making union catalogue, use of other external databases. It makes the consistency of the record and the standard quality.

4. House-keeping operations: Housekeeping operations covers acquisition, circulation and serial control, cataloguing. The all these features should be requires in the library software. The Circulation Data Migration facilities should be required it reflects your collection's use and is a valuable resource for library managers.

5. Advance in technology: Library should follow the new advance technology i.e. RFID. A new and innovative replacement for barcode technology is RFID (Radio Frequency Identification Devices). RFID is used in retail environments and is beginning to be installed in libraries. RFID brings many of the same advantages of barcodes, but uses a different type of reader to collect data.

6. System hardware and software: A computer operating system is the underlying software that is usually provided by the hardware manufacturer from whom you purchased your system. Arguments outlining advantages abd disadvantages of operating systems are beyond the scope of this document. Most library system vendors offer software that runs on more than one operating system take steps to plan for one and have it installed. Network planning is beyond the scope of this document.

7. Meet specific needs of library and information users: Your library system contains personal information about your patrons and their transactions, as well as invaluable information about your library's holdings, and the status of each item. Without this information, the library would not be able to operate. All networks are potentially vulnerable to intrusion from hackers.

Needs of Library Automation:

- Obtain increased operational efficiencies.

- the quality, speed and effectiveness of services,

- Improve access to remote users and other stakeholders, e.g., the general public.

- Improve access to resources on other networks and systems, including the web.

- The management of their physical and financial resources.

- Facilitate wider access to information for their clients.

- Facilitate wider dissemination of their information products and services.

- Enable participating libraries to resource sharing activities.

- Enable rapid communication with other libraries and professional peers.

- Increased operational efficiencies of the library staff.

Advantages of Library Automation

- **Improved Customer Service**

  Automation of the library helps take some of the workload off of librarians and other staff members in the areas of acquisitions, cataloging and circulation, which in turn allows them to better serve their patrons. This extra time can lead to more programs being facilitated in the library and make library staff available to answer reference questions and help people who having trouble researching or finding the right information.

- **Cataloging Improvements**

Automated cataloging standards, such as MARC (Machine Readable Cataloging), allow for quicker cataloging of library items. Not only does this allow the librarian more time to dedicate to improving customer service, but it also makes the sharing of materials from location to location much easier and much more affordable.

- **Easier Access**

  Not only does automation of library materials make it easier to find books, buy it also makes it easier to access journals and some books online from a home computer or elsewhere. The automation of library collections also allows the library to be more flexible when it comes to any increases in demand.

- **Collections**

  Automation of the library allows for an improvement in the variety, amount and quality of materials that are available in the library's collection. It can also help make weeding out old, outdated and irrelevant books and materials from the collection, which helps keep the library's collection more streamlined and easier to find the right item.

- **Lasting Effects**

  Automation is also a way of preparing the collection to become sustainable with the ever-increasing shift to a technology-based society, in terms of information dissemination, paired with the ever-decreasing amount of funding for libraries. Automation will help libraries who begin to struggle and are forced to lay off staff. Switching to an automated system allows libraries to add on features when they become available in the future, in stead of having to do a complete overhaul of their collections and cataloging methods.

Conclusion

Libraries have been seeking technological aids to facilitate and enhance their operations and services since very long period. Libraries are expected to use information and communication technologies (ICTs) to provide information to their users more expeditiously and exhaustively than before. Library automation is a process of using computer based system to carry-out housekeeping operations, such as the library automation software's available in the market should be able to fulfil these requirements and should have capacity to handle large volumes of bibliographic data. In India, large number of commercial software's are available

and are in use, especially, Lib Sys, SLIM, SOUL, Easy Lib, Lib Suite, Auto Lib, Lib soft, ALICE, Cybrarian, etc. Use of free/open-source software's in libraries has been the recent past activity, and many libraries are now appreciating use of them for library automation.

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