

LIBRARY AUTOMATION: AN OVERVIEW

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ABSTRACT

This article focused on the overview of library automation and the changing scenario of library management. The impact of ICT has changed the library operation and its functionality in to a fast to faster mode. Clients need not to visit shelf to shelf to find out a document. They just get their documents sitting in front of a desktop. Automation has reduced the man power. This article will discuss about the concept of automation, its requirement and various components helps to automate library. Some software package has given which are available for automation purposes.

Keywords

Automation, Cataloging, Library software, OPAC

1. INTRODUCTION

The library plays a critical role in our society it is an important component of any educational institution, which is hub of the teaching, and learning activities where students, researchers and teachers can explore the vast resources of information. In the age of information communication technology, computers are being used for day-to-day housekeeping activity of the library which saves the time of the end users, and library professional also and at the same time avoid duplication of work and make the library service smooth and effective. In the age of ICT library scenario has been drastically changed in terms of collection, organization and services. Simultaneously, user's demands and attitudes have changed in its kinds. Also the information seeking behavior of user has dynamically changed. They want relevant, authentic information very quickly within a single place at their hand .This concept has posed challenges for library professionals for quick delivery of library services and information. This development in library field has brought the idea of Library Automation.

2. CONCEPT AND MEANING OF LIBRARY AUTOMATION

The word "automation" has been derived from Greek word "automose" means something, which has power of spontaneous motion or self-movement. The term "automation" was first introduced by D.S. Harder in 1936, who was then with General Motor Company in the U.S. He used the term automation to mean automatic handling of parts between progressive production processes.

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” (Kent, 1977). According to McGraw Hill Encyclopedia of Science and Technology 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 systems” (McGraw, 1982). Webster’s Third new International Dictionary of English Language Automation is defined as “automatically controlled operation of an apparatus, process or system by mechanical or electronic device that takes place of human organs of observation, effort and decision”. (Gove, 1966)

According to the Oxford English Dictionary automation as “application of automatic control to any branch of industry or science by extension, the use of electronic or mechanical devices to replace human labour”. (Simpson & Weiner, 1989). Library automation, stated in single term, is the application of computers 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 may be defined as the application of automatic and semiautomatic data processing machines (computers) to perform traditional library housekeeping activities such as acquisition, circulation, cataloguing and reference and serials control. Today “Library Automation” is by far the most commonly used terms to describe the mechanization of library activities using the computer. (Uddin, 2009).

Encyclopedia of Library and Information Sciences “Library Automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing, and circulation. These 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 fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis” (Kent, 1977).

3. NEED AND OBJECTIVES OF LIBRARY AUTOMATION

Information explosion has resulted in the production of a large amount of literatures in every field of knowledge .Accordingly the print documents are coming to the library in huge numbers which is not possible for a library to manage the collection manually.

Now a days no user has time to search the required and relevant information from the dense heap of information collection .They have no time to go shelf by shelf to pick up a book . So it necessitated for library automation. In most of libraries are yet to be automated. The various factors that necessitated changing a manually operated library system an automated library system are as follows.

- Recording keeping activities of library can be done effectively in automated environment.
- 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.
- It will be cost effectiveness
- Maintain bibliographical records of all the materials, in a computerized form.

- Provide bibliographical details through a single enumerative access point of holdings of a library.
- Reduce the repetition in the technical processes of housekeeping operations.
- Provide access to information at a faster rate.
- Share the resources through library networking and implement new IT processes to provide high quality information.

4. WHAT TO BE AUTOMATED?

All routine works and services of the library can be automated through library automation. Besides in some automation software packages there are provisions for article indexing, abstracting etc. Basically these followings works of library are automated:-

- Online public access catalogue
- Circulation
- Acquisition
- Serial control
- Intranet
- Internet
- Digital Libraries

5. AUTOMATED LIBRARY SERVICES

There are various types of automated services provided by the automated library. The automated services are:

1. Current awareness Service (CAS)
2. Online Search Service
3. Printed Indexes
4. Selective Dissemination of Information (SDI)
5. Inter Library Loan
6. Stock Verification
7. Reference service

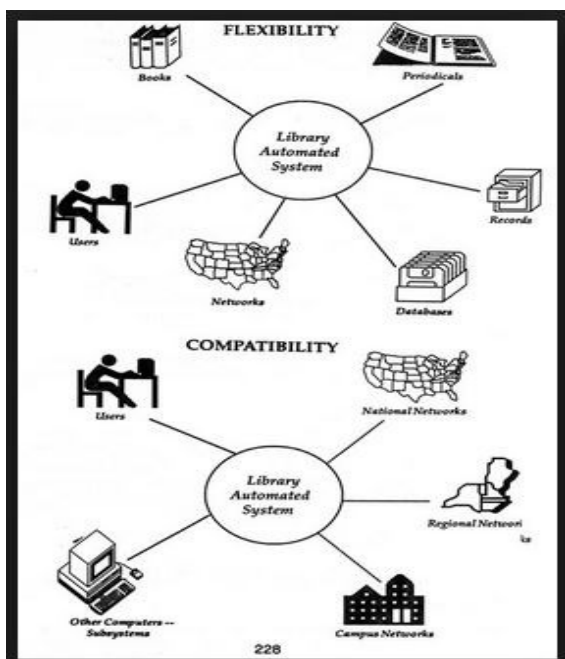


Figure- 1: System of Automated Library

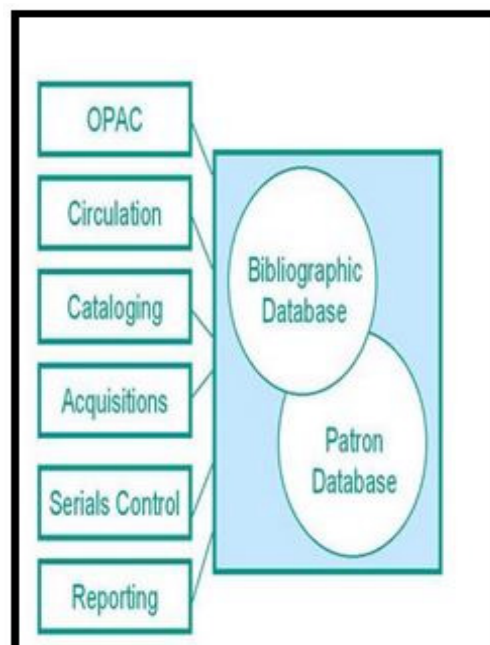


Figure- 2: Library Modules

6. REQUIREMENTS FOR LIBRARY AUTOMATION:

The basic requirements for any library automation Programmers are software hardware, manpower and finance. These four basic components are discussed below.

6.1 Software

The success of library automation mostly depends upon the nature of the software used for the purpose .The different types of available library software are of following types.

- a) In house development software or custom designed
- b) Software packages developed by commercial agencies, organizations and institutions.
- c) Cooperative Ventures.

Therefore selection of good library software is one of the most important functions of library automation programme. Every software has its own advantages and disadvantages. But it should be selected keeping in mind the need of the organization. List of Some commercial library automation software packages are given below.

No. Software Package	Developing Agency
1. Archives(1,2,3)	Microfax Electronic; Systems, Bombay
2. Acquis, Ascet, Ascir, Asire, Seras	Ober Information System, Calcutta
3. Basisplus & Techlibplus	Information Dimention Inc (IDI), USA (Marketed in India by NIC)

4. Catman	INSDOC, New Delhi
5. Defence Library Management System	DESIDOC, New Delhi
6. Golden Libra	Golden Age Software Technologies, Bombay
7. Granthalaya	INSDOC, New Delhi
8. Libman	Datapro Consultancy Services, Pune
9. Libra	Ivy System Ltd., New Delhi
10. Librarian	Soft-Aid, Pune
11. Library Management	Raychan Sysmatics, Bangalore
12. Library Manager	System Data Control Pvt Ltd., Bombay
13. Libris	Frontier Information Technologies Pvt. Ltd.,
14. Lib Soft	ET & T Corpn., New Delhi
15. Libsys, Micro-Libsys	Libsys Corpn., New Delhi
16. ListPlus	Computer Systems, Bangalore
17. Maitrayee	CMC, Calcutta (for the CALIBNET Project)
18. MECSYS	MECON, Ranchi
19. NILIS	Asmita Consultants, Bombay
20. Nirmals	Nirmal Institute of Computer
21. Salim	Expertise, Tiruchirapalli, Uptron India Ltd., NeDdhi
22. Sanjay	DESIDOC, Delhi (Under a NISSAT Project)
23. Slim 1.1	Algorithms, Bombay
24. Suchika	DESIDOC, Delhi.
25. Trishna	NISTADS, New Delhi. (Under NISSAT Project)
26. Tulib	Tata Unisys Ltd., Bombay
27. Ulysis	WIPRO Information Technology Ltd., secunderabad
28. Wilisys	Wipro India, Bangalore

6.2 Hardware

Hardware is the next important elements of library automation programme number of products and manufacturers are available for this purpose. The hardware configuration mainly depends upon the software. There are two types of PCs are available in the market such as

(i) The branded PCs from reputed firms like HP, Compaq, IBM etc. (ii) The assembled PC by commercial firms

6.3 Manpower

For running any programme including library automation programme, trained manpower are required. Hence the library professionals should be trained properly with requisite computer knowledge for making the automation programme successful. Some software package manufacturers are giving onsite training to the staff at the installation

time of software .The user also needs to be trained about the OPAC system.

6.4 Finance

For any programme finance is the important component .The finance of any automation programme includes both installation and ongoing expenditures which includes maintenance, stationeries etc.

7. PROBLEMS FOR AUTOMATION

There are many inherent problems associated with library automation programme. The problems can be summarized as below.

1. Initial investment for automation programme is very high.
2. Library staff has to undergo intensive training on automation.
3. The professionals are initially psychologically traced.
4. Other departments of the organizations need to be systematic for successful running of the programme.
5. Retrospective conversion of data for big libraries.
6. Recurring expenditures needs to be bear positively approved by the authority.
7. Regular update of the software package.

Ramesh, L.S.R.C.V. in his article “Technical Problems in University Library on Automation-an overview” has given the following barriers faced by the library during automation.

- Fear of adverse impact on employment.
- Apprehension that the technology could be too expensive.
- The library staff has to undergo extensive training.
- Lack of support from the management, may be owing to budget constraints.
- Retrospective conversion of data.

8. CONCLUSION

Now a day Library Automation has become the buzz word in library profession and has become a bare necessity for any libraries. An automated library can provide better library services to their users and can maintain the library more properly which a manual library can't do. The record keeping activities and various report generation becomes very easy in an automated library system. But the success of any library automation programme depends upon its proper planning and execution. Hence library professionals need to take right initiatives in right direction.

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