Research Paper

Library Science



Library Automation and Planning

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ABSTRACT

Information technology is undergoing a vast and fast transition during last one decade. The world of information is at our fingertip now. India has made great strides in computer and telecommunication technologies. Information technology made possible the journey of libraries from storehouse to the current stage of information centers and e-libraries. Automation improves storage and collection of library books and journals. Root of the history of automation are sice early time when the electronicinstruments were used to make library use very effective and covenient. Lack of the qualified staff and affordability of the automation instrumets is the obstruction in the automation of library. Function atomization 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. Here electronic machines used to through the internet. In library automation planning process, it is desirable to formulate a model for automation listing all itemized and prioritized information systems being maintained on a manual basis by the library. The system sand subsystems listed in the article are palying important role in automation and may vary with differing library system environments.

Keywords : Library, Automation, Library Software

Introduction

Information technology is undergoing a vast and fast transition during last one decade. The world of information is at our fingertip now. India has made great strides in computer and telecommunication technologies. It was one of the first few nations, which realized the potentialities of computer for bibliographical information work and routine library housekeeping operations. 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.

According to Webster's dictionary "automation is the technique of making an apparatus, a process, or a system operate automatically". In other words, it is the machinery that mathematically manipulates information storing, select, presents and records input data or internally generated data. Automation word is used for automatic technical process.

Need of automation in library

The most important issue for libraries management is the change without losing their identity. Change is nothing but a transformation of today's requirement to tomorrow's performance is important. It is the only thing that has made possible the journey of libraries from storehouse to the current stage of information centers and e-libraries. Library automation helps in managing diver's library resources and provides better and wider access to resources. It also gives advantage in terms of space and time to search as well as read. Automation improves storage and collection of library books and journals. It also increased operational efficiency and accuracy of library environment. Therefore, complete automation in libraries has become the need of the current era because shortage of staff will not adversely affect the services and functions of the libraries in automated environment. Overall important factors to lead towards Library automation are information explosion, increase in the collection of libraries, inability of users to explore the unlimited literature and information of their interest, wastage of

user / staff time in locating the information, provide wide access to resources within the libraries and elsewhere, better access, quality in service and gives best cooperative efforts (Resource Sharing). Library automation can also lead to, provide new services not hitherto possible and improve the management of their physical and financial resources. It can facilitate wider access to information for their clients as well as wider dissemination of their information products and services. Library automation enables their participation in resource-sharing library networks, and rapid communication with other libraries (including outreach libraries) and professional peers.

History

The history of library automation started in early fifties in US. At that time library, automation includes using electronic devices and system application to make library work convenient. Library computerization entered into 1960s with the advent of computers. The notable ventures were MEDLARS, MARC, etc. Until the early 1980s, "automating the library" involved generally the same features as those in place since the advent of machine-readable cataloguing record in the late 1960s. Late 80s in few special libraries started library automation which now reached most of the university libraries and also now a day's available in college libraries of India. Library automation deals firstly with automation of library functions and secondly digitization library collections. Function atomization 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.

It is divided in four major parts:

- a) Preparation of bibliographic database
- b) Computerization of housekeeping operations
- c) Networking and acquisition of materials in digital forms
- d) Digitization of library documents.



Figure 1: Library automation networking

Obstruction in library automation:

- Most of the libraries are still under the influence of scientific management, which gives more importance to management than employees.
- Lack of staff developments programs and resistance to change in library staff are the byproducts of hierarchical, technical, rigid, static and seniority based system of libraries.
- Cost of automation

Library automation

Automation defines as a technique to make a system automated means self-active. Here electronic machines are used to automate the libraries like computer, bar coding system, RFID etc. Library automation means the application of machines to perform the different routines, repetitive and clerical jobs involved in functions and services of the libraries with good accuracy and minimal human recourses. Overall, libraries automation refers to the process of making automation of certain key functions like circulation, cataloguing Acquisition, serial controls, library management, utilization etc. Library Automation is the general term for information and communication technologies (ICT) that are used to replace manual systems in the library.

Library Automation Planning

In library automation planning process, it is desirable to formulate a model for automation listing all itemized and prioritized information systems being maintained on a manual basis by the library. For this exercise it is necessary to break down these procedures into their constituent parts. When further subdividing these activities, each item is to be considered of its functional elements. Library automation can be developed to handle basic housekeeping functions of a library either single function or an integrated one. The systems and subsystems listed below are only indicative and may vary with differing library system environments.

Acquisitions

Selection ordering claiming/cancellation receiving/invoice processing extended procurements, Gift tracking, Fund control, Maintains information about all library related funds, Ability to group funds (nesting), Track fund allocations and adjustments, Fund encumbrance fund expenditure cash balance, Free balance, Automatic updating of fiscal information through recording of specific transactions, Track year-to-date expenditures, Create purchase orders, Technical Services, Books, Serials, Special Collections, Cataloguing Book Serial, Special Collections, Circulation Charge/Renewal Discharge, Loan Periods Processing schedules Holds, Messages Blocks Notices, Transaction Recording Devices for off-line processing, Member control, Inventory Control, Serials Control, Receipt (check-in) claiming, Bindery control, Replacements Monographic serials Invoice processing, Reference Services, Desk services, User tools, Bibliographic utilization, Reprography, Inter-library communications General Administration Grants Administration Library Publications, Bindery, Periodical Citation Searching, OPAC, Bibliographic Database



Figure 2: Technical and support services Selection of Library Software:

For academic institutes selection of library automation done at competent priced resources like; SOUL/CDS/ISIS is best suited as it involves minimum investment on both hardware and software. Once a database with bibliographic details is developed by librarian, the same data can be used for circulation activities with ease. Here the selection of software becomes crucial because CDS/ISIS can efficiently handle only the cataloguing system. Major available library automation software's listed in table 1, user can select as per their requirement and specifications. Answer to the following points might conclude the librarians as well as management to select the right software:

- 1. Who are the developers, whether an institution, or reputed company or few individuals?
- 2. How many times the software has been revised since the time of its first launch?
- 3. How many parameters are available for each module. More the parameters better will be the flexibility and needs no or minimum customization.
- 4. Whether the software has facility to import bibliographic data available in ISO2709 format and similarly export of data in this format?
- 5. Up to what level training and guidance after installation will be given?
- 6. Whether available on major operating systems?
- 7. Whether it is web inter faceable?
- 8. Whether it can be interfaced with the e-mail system of the campus network?
- 9. How many installations it has got in the country, since when and major clients?
- 10. Whether it can offer OPAC and different rights to different logins?

lable 1: Available Library software for Au	tomation
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Commercial Open Source Freeware	Commercial Open Source Freeware	Commercial Open Source Freeware
Autolib Emilda FireFly	Emilda FireFly	Emilda FireFly
Easylibsoft	Glibms	WebLis
E-Granthalaya	Java Book Catologging	
Gyanodaya	System	
Libra 2000	Koha	
Librarian	Mylibrarian (For Schools)	
Library Manager	OpenBiblio	
Libsuite	Open-ILS	

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Libsys	PhpMyLibrary	
Nalanda		
NewGenLib		
NexLib		
Rovan LMS		
SLIM		
SOUL		

Conclusion

For the successful implementation of an automation for integrated library system all key factors must be in place: support from administration, staff competence, consideration of user requirements, presence of the infrastructure (hardware, software, network), available data, excellent managerial skill from the coordinator of the project. It offers speed, accuracy, and efficiency in the processing, presentation and retrieval of catalogue information.

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