



LIBRARY AUTOMATION: ISSUES AND APPLICATIONS

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Abstract:

In this theoretical essay, the significance of automation in libraries is discussed. Libraries always work to meet user information needs so they can achieve their goal of having an automated library. This essay explains the idea of library automation, the requirement for library automation, Benefits of library automation, as well as its advantages and drawbacks. Simply expressed, library automation is the use of computers and computer-based products and services to carry out various library operations and functions, provide a range of services, and produce output products.

Keyword: *Library, Library Automation, library computerization, ICT.*

Introduction:

The heart of any academic institution is its library. It serves as the central component of the teaching-learning process and is the essence of any institution of higher learning. The information age is another name for the current era. Information is expanding like an explosion every day. Libraries today shift their service delivery methods from manual to digital. They want to provide has serviced as per the user's demand and quick in time. Today, we have only recently entered a new millennium or technological era. ICT has significantly altered many fields, including library information services. Through the use of ICT, automation industries as well as library information networks and services have been established globally in recent decades. Through information services, the utilization of information technology tools enables a massive flow of information to end users. ICT introduces a number of

changes to the field of library information services, including book acquisition, serial-control cataloguing, Web-OPAC, CAS, and SDI, among others. Libraries use established networking systems to connect to other libraries for this purpose and apply automation-based services to library operations. For library automation, the librarian and his employees must also acquire new information, technologies, procedures, and abilities. Automation for libraries is a human-operated, electronic system. The uniformity of library work is greatly aided by library automation. Library automation aids in providing people with the information they need and improving library services. The diversity, quantity, and quality of resources available in the library's collection can all be improved thanks to automation. Additionally, it can make it easier to purge the collection of old, out-of-date, and irrelevant books and materials, which keeps the library's collection more

organized and makes it simpler to find the proper item. In the twenty-first century, libraries must be automated and networked.

Meaning of 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. Information and communication technology are expanding quickly and changing quickly in every facet of today's information era. A lot of library activities are repetitive and routine in nature. These tasks can be automated to save staff members' time, the library's money, and manpower. The basic goal of library automation is to free up all library staff members and enable them to participate more significantly in the efficient distribution of knowledge and information. Automation is a form of automatic functioning in which the professional material's handling procedure, production process, and design are all interwoven. This is an endeavor to create a chain of processes that runs automatically and self-corrects.

Definition of Library Automation:

“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 semi-automatic data processing machine 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 field such as information retrieval fields such as, automatic indexing and abstracting and automatic textual analysis” (Kent,1977).

Need of Library Automation:

It is possible to refer to the rate and size of information generation as an "information explosion." Faster services must be offered if this information is to be disseminated to users at a rate that will enable them to keep up with technological advancements. Better services with enhanced quality are needed to keep up with the speed at which information is assimilated from diverse fields and distributed to the users dispersed in different groups. The services should be planned to speed up data processing and information retrieval for users, saving both staff time and user time. This is possible by pooling resources through library networking, making it possible to quickly exchange information with other libraries. Users can now obtain information more quickly thanks to this. New IT processes should be put in place to make optimal use of these resources, offer high-quality information, and conserve time and manpower. The following are the reasons why libraries must be automated:

- Quick information processing and retrieval;
- Flexibility when looking for information;
- Uniformity in library practices;
- Participation in sharing resources and network programming;
- High rate and higher performance quality;
- Prevents or eliminates plagiarism;
- The financial effects of cutting-edge information technology;

Areas of Library Automation:

Automation of libraries is an important initiative in library services because it allows for the rapid assimilation and distribution of information in the age of information explosion. The first and most important tasks are the gathering and cataloguing of information. Information circulation and series control are advancements in this field. Users must use interactive software that is user-friendly and quick to use, such as OPAC, in order to get this information quickly and easily. The automation of the library reduces administrative and stock verification work, but security and information safety are the factors that provide new issues and must be appropriately addressed.

Important Conditions for Library Automation:

Hardware: There are many different types of hardware available on the market, and hardware is the main requirement for library automation. Hardware specifications are determined by the available funds.

- The amount of data to be stored.
- Usage volume
- Necessary speed.
- Upgradeable features when need.
- The accessibility of services.

Computer: Standalone, Server or On Cloud, RAM Operating system (Linux, Ubuntu, Windows), Supporting software of library automation software. Keyboard & Mouse, Printer, Scanner, Barcode Printer, Barcode Scanner, Software.

Pre – requisites for Automation:

Although library automation appears to be the most comprehensive answer for the demanding user needs with easier and faster information dissemination, it has typical prerequisites. The most significant obstacles to overcome are institutional support and financial allocation. LAN/WAN capabilities, internet access, and service planning are other crucial requirements. To make effective and productive use of automation services, system analysis with the most up-to-date and appropriate hardware and software is required. The most crucial factor in keeping personnel up to date to meet problems and satisfy users is staff training.

Benefits of Library Automation:

Compared to traditional library services, library automation offers a number of advantages. Automation's primary benefit is that it expands library services beyond their traditional boundaries. Literally anywhere in the world can access the library's services. It boosts output both in terms of work and in terms of service. In contrast to traditional library services, it can reach the greatest number of customers at once. It provides easy access to electronic information resources which require less maintenance.

Advantages of Library Automation:

Automation in libraries has a number of benefits. The fact that it is user-friendly is its main benefit. Users are not

compelled to look for the hard copies themselves. Through programmes like OPAC, it is simple to search the online resources. The online resources are readily available and can be specifically targeted for the desired information. It makes managing the circulation job simple. Automation's capacity to offer many accesses simultaneously is crucial. The national and international data bases can be accessed as quickly as possible and in the shortest amount of time necessary depending on the situation.

Disadvantages of library Automation:

Despite the fact that library automation has a number of benefits, there are some drawbacks. Complete automation of libraries presents the first and most significant barrier because it is a lengthy and laborious procedure. Nowadays, it is possible to access data in electronic form. However, digitizing older books and other resources is a laborious task. Another challenge with automation is that it is entirely dependent on the machinery, and any issue with the hardware or software could render the system inoperable. Since these systems depend on electricity to function, frequent power outages in rural and semi-urban areas can seriously impair the facilities' ability to function. The personnel needs regular training in order to acquire computer literacy and stay current on technological advancements. The other significant elements among the drawbacks of library automation are the ongoing system upkeep and updating, as well as the associated financial costs.

Barriers of Library Automation:

Although library automation benefits, it also there are a number of difficulties encountered while automating libraries.

- Fear that the technology may be too expensive.
- Lack of skilled or trained staff /professional.
- Lack of competent and willing manpower.
- Lack of Management support.
- lack of infrastructure facilities

Suggestions for Library Automation:

- The government should offer financial assistance,
- In accordance with library and information policy, verify local authorities and library systems as well.
- Conduct staff training programmes about library automation periodically.
- Decide on the best automation hardware and software.
- With the use of various security tools, such as the usage of an antivirus programme, a firewall, and routine data backups, all data or information should be kept secure.
- Power backup should be provided via an inverter.

Conclusion:

"Works of the library aided by machinery and new technologies known as library automation," to put it simply. The automation of libraries is a lengthy process that requires careful budgeting, planning, and execution from time to time. In the automation process, it's crucial to choose an integrated library management system that meets both the needs of the users and the library. In libraries, automation is utilized to prevent repetitive tasks that waste time and manpower. The library should be mechanized in order to provide information in digital format. The main

purpose of automation is to encourage the usage of information. Library employees should be prepared with up to date understanding of computers and their technologies in this electronic age of information.

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