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LIBRARIAN INSIGHTS: COMPREHENSIVE REVIEW OF INFORMATION AND COMMUNICATION TECHNOLOGY AND ITS USAGE IN DIGITAL ERA

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ABSTRACT

Information and technology is the key factor in any kind of learning process including research. With rapid development of information everyday there is need for change in working ability of traditional libraries. More so over the newer generation more inclined to technology based resources rather than visiting libraries and borrowing resources. The way of using resources has been changed in a way that users need quick and easy access to required information. Any progress in development in terms of economic, intellectual or cultural requires knowledge of information. This can be achieved only through efficient deliverance of information to all. Development in information technology has influenced the academic libraries of India for its overall betterment. Academic libraries use technology to manage user's services, communication facilities, housekeeping operations, search engines, standardization and development of library activities. The term automation refers to a wide variety of systems and processes that operate with little or no human intervention. The applications of automation are widespread especially in libraries owing to the amount of resources. Bringing information technology in libraries doesn't serve the purpose until unless effective implementation and its use by the end users.

Keywords: Automation, Information technology, Learning, Resources

INTRODUCTION

The Information and Communication Technologies (ICT) have achieved radical changes in delivering and storage of information. The conversion of traditional library pools to digital or virtual pools presented the librarian with new prospects and challenges (1). In the present era

digitalized databases are being compiled, which are based on information technology as well as resources available in electronic formats in majority of libraries. In order to manage all kinds of resources and information, libraries require high quality integrated software, along with cutting edge retrieval tools (2). It is well recognized that

libraries all over the world are undergoing transformation, especially owing to the developments in the areas of information and communication technologies.

Automation is defined by the Oxford Advanced Learners Dictionary (3) as the use of machines to do work that was previously performed by people. In academic libraries, work done by people includes selection and acquisition, cataloguing, circulation, reference services and serial control.

Lam (4) defines library automation as the use of computer and networking technologies in the library.

Kofi and Opare-Adzobu (2010) add that these systems reduce the time and energy of the staff in the overall management of the library systems, operations and services on one hand, and that of the users for accessing information and services on the other hand, at their convenience regardless of location and time of use (5).

WHY WE NEED AUTOMATION/ TECHNOLOGY IN LIBRARIES:

There has been rapid increase in the use of computers, internet, electronic resources, databases and the World Wide Web in every aspect of human activities, including

the most important I.e. education. Information processing and retrieval is a promising and vital component enabling structure of LIS career development in the future.

The library with books in the shelf made difficult for librarians to maintain and provide them to students and other users. The newer generation's students are more addicted to technology and are more oriented in this area. As mentioned above is the one reason for decline in use of print materials from the library. This is an alarming situation for both teachers and librarians in the learning process.

The implementation of technology in library changes the role of librarians from dispensing books to educators, supporting the students learning. A proper collaboration between the teaching faculty and librarian brings out required changes in students attitudes towards use of library resources. The studies also showed that implementing new information technology has expanded the role of librarians as educators. The study also found that collaboration with faculty member was one of the key features. Making students and faculty to use new ICT have become one of the important roles of librarians and information managers (6).

By implementing the technology in libraries, these information centres are able to provide access to:

1. Sharing the information to all sectors of the community.
2. Online resources for learning, research available all over the world.
3. Comprehensive statistical databases and content page services.
4. Search engine using key words, phrases to find the relevant data.
5. Authenticated resources for students. Most important aspect in finding genuine content for learning and research.
6. Resources for users whenever they require.

Today we are living in the age of information. Information technology plays a vital role in library and information science in terms of collection, storage, organization, processing and analysis of information.

Library field may face many challenges in their profession due to applications of information technology. -A development of uniform guidelines and use of standard software's will overcome this problem by

easing information handling and creating information society.

With the advent of Information technology, libraries have become automated which is the basic need towards advancement and one more effort towards virtual libraries. The emergence of e-publications, digital libraries, internet usage, web tools applications for libraries, consortium practices leads to the further developments in library profession. The latest technology trend in library science is use of cloud computing for various purposes and for achieving economy in library functions. Since cloud computing is a new and core area the professionals should be aware of it and also the application of cloud computing in library science (7).

Use of technology in libraries enhances user's satisfaction. It provides numerous benefits to library users.

Following are listed below:

- Provide speedy and easy access to information
- Provides remote access to users
- Provides round the clock access to users with availability of internet.
- Provides access to unlimited information from different sources but caution must kept to take help of

librarian in finding authenticated resource.

- Provides information flexibility to be used by any individual according to his/her requirements
- Provides increased flexibility in selecting resources of interest.
- Facilitates the reformatting and combining of data from different sources

DIGITAL LIBRARIES AND E-LEARNING:

Krishnamurthy (2005) defines digital libraries as “electronic libraries in which large number of geographically distributed users can access the contents of large and diverse repositories of electronic objects. Academic libraries apply appropriate communication technologies to provide support to e-learning and e-research by providing seamless access to electronic resources and services (8).

The range of electronic resources include online catalogues, databases, multimedia, online journals, digital repositories, electronic books, electronic archives, and online/electronic services (9).

The use of cutting edge technologies and automation in academic libraries provides useful resources to students whenever they

want to have it. The main purpose of libraries is to support learning so that performance of students is improved.

Information has emerged as the prime in the 21st century. ICT has exerted a profound Influence on working of traditional academic libraries. With the benefits of using ICT in libraries many of them had no option but adapt themselves to new developments. Hence, networking of information centres is inevitable. The prime objectives of the library is pooling information resources and information related infrastructure and sharing them. In this process, many libraries have re-examined their traditional methods and services to overcome inadequacies through automation and computerization.

The automation of library has major impact on learning process in students.

- The students used the online resources more frequently.
- Many institutions added e learning in their curriculum.
- Faculties were able to use the resources frequently and its must for them to use in teaching process.

- It has changed the functioning of library in terms of library resources and services to support learning, teaching, academic activities and research.
- Finally technology provides a link for collaboration between librarian and teaching faculty.

ADVANTAGES OF AUTOMATION IN LIBRARY SERVICES:

Antherjanam & Sheeja (2008) carried out a study to find out the impact of ICT on LIS and its major shifts and practices in university library of CUSAT. The major findings of the study were: (10)

- (a) Users are making very good use of the available ICT facilities.
- (b) With the help of telephone, e-mail, Fax etc. reference queries are answered faster than before.
- (c) SDI, CAS etc. are also done faster than before.
- (d) Issue & return of books, renewals are done faster than before.
- (e) Book selection, price checking are also done very efficiently using ICT.
- (f) About 90% of the users of the library search OPAC for getting information about the where about of books.

The main function of library is to provide information to users called as reference services. The technology plays a important role in in library to serve reference service. Bunge (1999) categorized reference services into three broad groups: (11)

- (1) Information services that involve either finding the required information on behalf of the users, or assisting users in finding information;
- (2) Instruction in the use of library resources and services (broadly defined as information literacy skills); and
- (3) User guidance, in which users are guided in selecting the most appropriate information sources and services.

In India numbers of libraries have now begun to offer technology-based reference services in order to deal with the rising cost of reference sources and staff and also of the huge initial investment required for introducing new services in libraries.

One of the advantages of technology-based reference services is that users can ask for such services from a remote location at any time of the day.

THE OVERALL INFLUENCE OF AUTOMATION WILL BE FOLLOWING: (12)

It will help to improve the library services in terms of quick service, allowing users accessing the information from remote areas, easy cataloguing of learning resources etc.

- Automation of the library processes can enhance its reputation by providing authenticated resources to user with help of librarians, provides all the resources available worldwide, and improves seeking, processing of information and making it to be used by people.
- It can provide the librarians with management information skills which in turn makes library use easy and increased use by users.
- It can help the librarian in reporting on the various operations of the library.
- Tasks will be completed more accurately and quickly with increased control on system.
- Increased demands for services can be counter balanced with improved productivity especially with either static or declining budget resources.
- It can facilitate co-operation between libraries across the places. It provides an opportunity to share the

information across the libraries that allows user to use it from there places.

- It can provide the means to offer new improved services to patrons.
- It may obviate the need to hire additional staff with increased demand for services.

IN TERMS OF ACADEMIC WORK FOLLOWING ARE THE BENEFITS:

- It fulfils the teaching and research needs of the institutions.
- Provides instruction in the use of the library.
- Provides general and specific information about literature search.
- Promotes resource sharing, networking and exchange of databases.
- Provides documentation and information services and bring out relevant publications.
- Helps to develop libraries and promote standards, guidelines and best practices.

COMMON SOFTWARE'S USED IN LIBRARIES IS BEEN LIST BELOW:

1. Computerized Documentation System/Integrated set of information System (CDS/ISIS)

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| 2. Window version of the CDS/ISIS (WINISIS) | operations as well as information retrieval (13). |
| 3. Software for Universities Library (SOUL) | - How it matches the library's requirements |
| 4. Alice for Windows (AFW) | - Product quality |
| 5. LibInfo | - Features and functions |
| 6. MIDAS Library Management System (MIDAS LMS) | - Staff training and support service |
| 7. Library Management System (LMS) | - Operating system |
| 8. Library System (LIS) | - Hardware and software requirements |
| 9. KOHA | - Functionality: What modules are available, values additions to existing functions |
| 10. PhPMMyLibrary | - User interface: Navigation, error alerts, intuitive, customization |
| 11. LibSys | - Design: Flexibility, switching from one module to another, multifunction modules, does it enhance the productivity |

SELECTION OF LIBRARY MANAGEMENT SOFTWARE:

Selection of library management software (LMS) is not a simple task. Sometimes librarians go with either renowned software or maximum number of usage of the library. Selection of LMS may consist the following points/steps, which might help the librarians (Kumar, 2010) to select the right software for their house-keeping operations as well as information retrieval. While examining the software, librarian must have the followings information about the software which might help them to select the right software for housekeeping

- Conforming to standards: MARC, Z39.50, ISO-2709, etc.
- Scalability: Single user-multi use network. Can it be used in client server LAN architecture or fully web browsing architecture?
- User-controlled customization
- Reports that help take decisions
- Security levels
- Migration of data or data transfer

CONCLUSION

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The main function of libraries is information dissemination among the users and bringing changes in the community to have knowledge society. The implementation of technology brings positive changes in use of library resources and its implementation and success rests on the librarian. Once any new changes implemented in the library it's the responsibility of librarian and informational professionals to share the new system with teaching faculty, administrators and students. The main focus should be providing details about benefits in the learning process, research areas, academic uses etc.

The librarians should use various platforms to convey the message such as conducting workshops, seminars and discussion sessions at regular periods. It should be noted that one session may not bring changes in the use of library resources we should be reemphasising the library uses at regular intervals.

This effort will bring positive changes in teaching faculty who will implement changes in teaching ways. This in turn allows the students to use the library resources very often be it a print materials or e resources.

The librarians as teachers should bring changes in the library and information sciences curriculum which provides basic skills and awareness about information technology. This will have great impact on providing future library services to users of various communities and more importantly improving the academic performance of students in education institutions.

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