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### Full Length Research

### Awareness of Library Automation among the Professionals in Academic Libraries at State of Eritrea

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Eritrea is the small country in Spine of East-Africa in which nine colleges serving under the Institutions of. Higher Education (IHE), Eritrea. Some of the colleges haven't well-equipped library facilities omitted EIT this institute only Implemented library automation with RFID technologies through Open Source Software (KOHA). However, not at all library is self-sufficient and they are growing organism. The main impartial of the academic library is to deliver the right of entry to the important information in a little potential period. In the era of the material blast, single horizontal the information converts the same expensive and additional horizontal, the rising difficulties of the consumers and the weakening stages of economics type's actual essential condition to the academic libraries. Thoughtful this worldwide believed, it is right important to the reason for automation of the academic libraries in the State of Eritrea. The article notices that nobody of the 8 academic libraries is automated. The libraries variety use of librarians with related exercise in computer applications fixed with in-house and supported seminars and workshops. The study commends that parental organizations must give importance to the improvement of library automation and digital library enlargement through open-source software based library automation systems.

Keywords: Library Automation, ICT, Digital Library, Open Source Software, OPAC and Eritrea.

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#### INTRODUCTION

The historical library automation was commonly recycled in the previous for the maintenance processes of the library. Nowadays it has used this one opportunity and comprises all those types of machinery which libraries and information centers use for collection, processing, storage, retrieval, dissemination, and transmission of all kinds of information at local, regional, national, and international equal. Seeing since the 1960s the major procedure of library automation was the use of PCs to collection bibliographic documents and to permit the circulation of routine. The scheme to a residence

against computer the routine of the US library of congress resulted in finally in the growth of MARC (Machine Readable Cataloguing), first up the opportunity of libraries replacing bibliographic archives and hopeful co-operation among books. In the 1970s the LMS (library management system) developed the highest maintenance implement in enormous libraries and this leaning was sustained complete the next two periods, departure real limited libraries short of a certain form of scheme. These were the cumulative control in the routine of the particular computer; the cumulative majority of noncopyrighted software, hopeful race but just as highly enabling cumulative conversation of records over webs,

and the growth of the internet.

2011 (Breeding, Marshall) observed at the growth of library technology, converging on Library Automation, ILS (Integrated Library Systems), and the use of open-source software. Supplementary subjects deliberated comprise the rivalry among chains of Integrated Library Systems and exclusive library services sellers, the reductions in library economics, and hearing between library facility firms finished the defilement of antitrust rule. 2011 (Rai, Namrata) debated the growth of LMS (Library Management Software) and to suggestion out the features and leanings of software with different position to bundles that deliver any net line for several of their components or overall net-based resolutions for all organization components. That article similarly pursues to associate facilities and services and technologies combined in the library automation System.

An integrated library system (ILS) is an automated library system (ALS) in which all of the functional modules share a common bibliographic database. In an integrated system, there is only one bibliographic record for a book. All transactions involving this book will therefore be linked to the bibliographic record. An integrated library system enables the library to link circulation activities with cataloging, serials management etc. at any given time. It makes use of a file server and clients in a local area network.

#### What is library Automation and Networking?

Library automation canister is clear purely as the usage of computer and introduce you skills in the library. Description: Automation is a development of using the technologies for relaxed functioning and good the moral authority and time.

#### **Definition of Library Automation**

Library automation may be defined as the application of automatic and semiautomatic data processing machines (computers) to perform traditional library house keeping 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)

# What is the difference between library computerization and library automation?

reflect there is no alteration amongst L automation and computerization. Computerization is a wider duration and earnings ringing out any mission with the support of machine which finally moderates or reduce the human strength. Library automation means consuming machineries for resounding out the library effort.

#### **OBJECTIVE OF THE STUDY**

The objective of the study is as

- To uphold the bibliographical records of all the materials, in a digitized and computerized form.
- To provide bibliographical details through to count how many things of library holdings of particular access point.
- To reduce the repetition in the scientific and technical processes of housekeeping operations.
- To offer the access of the information at a quicker and faster rate.
- To contribute and crave up the resources through library networking.
- To execute the new IT processes to provide the elevated and high quality of the information.

#### Need for the Library Automation

From the above definitions, we can say that the need of library automation has several reasons. Need of computers is present in all areas depending upon its usage. They range from acquisition control, serial control, and cataloguing and circulation control. They are also used for library manager's evaluation of reports, statistics, etc.

For the good administration of the library computers are used in all levels of work. Above all, the unique characteristics of computer made it the right choice for the library in Eritrea state. Computers right from the beginning are considered to aid man, in doing various operations

#### Eritrea State

The idea and execution of the system of colleges has come to stay for the last 25 years in the kingdom of Institutions of Higher Education (IHE) in Eritrea. The system of linking colleges was designed at a time when the number of colleges was small. There were only 8 colleges at the time of Independence in 1993. Eritrea becomes the world's 181 independent country measuring about 45,000 square miles with an estimated population of 5,01,000 in July 2016 (Eden, undated Cite an authoritative and dated source instead), given it a population density of 96 persons per square mile. Eritrea is located in the siren of Africa: a region badly affected by conflict, war and drought. Despite of serious natural and war faced obstacles, the country is moving towards development in all sectors including economy and social services (Cite a document that highlights this). The Government of Eritrea is mainly giving focus on education (Cite a document that highlights this). . There are 824 schools across the country (Ministry of Education, 2005) in Eritrea, University of Asmara and the Eritrea Institute of Technology (EIT) as well as several other colleges and technical schools are functional. The other educational colleges affiliated to Ministry of Education includes the Marine Engineering College, Massawa, the College of Agriculture, Hamalmalo, the college of Arts and Social Sciences, Mai Nefhi, the college of Business and Economics, Halhale, College of nursing Barentu, College Library Ad-keih, Winna Institute Library, Nakfa, and the College of Nursing and Health, Asmara (Efrem, 2006).

#### Status of College Libraries in Eritrea

The existing colleges of the State of Eritrea to provide tertiary education are as follows:

- College of Agriculture, Hamalmalo, (CoA)
- College of Arts and Social Sciences, (CASS)
- College of Business and Economics, Halhale,(CoBE)
- College of Marine Science and Technology, Massawa, (COMSAT)
- College of Nursing and Health, Asmara (CoNH) (Efrem, 2006).
- Eritrea Institute of Technology (EIT).
- Winna Institute, Nakfa (WI)

#### Lock of Library Automation in Eritrea

The main problem in maximum automation schemes is the lack of willingness of staff to receive alteration and purchase capability in using Information Communication Technology and the ILS. This problem requirement is lectured even previously in the systems examination period. Employer willingness is further simply lectured than staff willingness. One more foremost drawback is the deficiency of funds to preserve the scheme. Budgets of working and preserving automated systems can be from top to bottom. Different workshops where the events are immovable and automation characteristically increases profit, automation in libraries may not result in reduced costs of operation. It might in fact increase them. The benefit is really on improved services to users. Another pitfall for many libraries is data conversion. Care must be taken in developing an action plan for data conversion. Without a plan, it can go on and on. Systems are available for copy cataloging and acquiring digital records. Librarians must decide on standards and procedures to finish data conversion in the least possible time. Not as critical but nevertheless a cause of problems is the delay in the delivery of hardware and network components and the absence of facilities for fast access to the Internet. In many cases, even telephones are not available at the site.

## Solution of Library Automation through Open Source Software's

Open-source systems are now competing with moneymaking off-the-shelf systems. These open-source systems are accessible free of charge through the Internet in worldwide and include the source codes of the package with our oven requirement customizations. The user's container manipulates the package to uniform their requirements. The scheme is established through gifts from users. If the library has accomplished systems analysts, librarians, library professional staffs and ICT staff, open-source systems can be used. Then, the use of off-the-shelf software that follows to values is suggested as long as the library can have enough money the acquisition price and the yearly conservation prices.

## Issues to reflect in choosing for open source systems are:

Staff willingness, information, and skill the systems frequently run under a UNIX operating system or Windows operating system (OS) environment and an open-source relational database management system (RDBMS). Further staff exercises on the OS and RDBMS may be wanted improvement group. The customization of the system is not possible through one person alone. It has to be a team effort. Availability of Internet access, regular participation in discussion lists is important when using open source systems.

#### Popular open-source Integrated Library System

Open Source Software (Koha) a full-highlighted opensource ILS established by Katipo Communications Ltd in New Zealand. It has engrossed the greatest designers to its double. It is presently preserved by IT staff from everywhere the world. It is used in experimental libraries everywhere around the globe. It was possible to develop a worldwide ILS. Practical maintenance is delivered through the internet and discussion online environment. The system operates under Linux or Windows, on any other web server, any SQL database system, and with Perl modules. This (PHPMyLibrary) was started in the Philippines as a likely low-cost solution to library automation. Its board addressees are minor academic and special libraries. Certification is lowly. Maintenance is provided via internet and discussion online environment. It runs below Linux or Windows, PHP, and any SQL database system. Cataloging using the MARC standard is completely executed. Change from a CDS/ISIS database is possible.

#### Eritrea Institute of Technology (EIT).

EIT has positively automated libraries in Colleges on an experimental beginning. The Koha software developed was used in the experimental implementation and the software is initiated to help the single-mindedness in all salutations and the structures accessible are worthy sufficient to automate college libraries

To follow additional with the development of automation in the EIT the following steps, recommended.

- RFID of books and making library book database at colleges suitable for Koha software by Colleting Metadata from OCLC
- ✓ Guiding One week' workshop for librarian and library Staffs on library automation using Koha software as well as the next features. a.
- Procedure of RFID based scanners
- OPAC and Stock verification by Koha software.
- Installation and maintenance of Koha software
- Documents record and preservation/ organization of database
- Adaptation of Koha software

#### Advantages of LAS

A library Automation system is more advantageous than a non-automation system because. There is no duplication of effort to create and maintain multiple copies of bibliographic records. In a manual organization, cards have to be entered more than a few times to deliver not the same right of entry themes (author, subject, title, etc...) to an item. In an ALS that is not integrated, the records have to be entered more than once for cataloging and again for circulation. The system automatically accesses the record whether the librarian is accessing it for cataloging, circulation, reference, etc. Library staff and patrons can have access to all pertinent information about the document at any time, including the status of the document, that is whether it is on the shelf or out to a borrower. The system records the transaction in the master file as soon as the record is accessed, hence, at any given time the user will know the status of a document. You are sure of the integrity of the database

because all transactions can be viewed from the master file/database. There is no redundancy in the data.

Many activities of a library are routine in nature; a few are repetitive. Automation of these activities helps in managing the library's resources in a better way at the same time saving time, money and manpower. For example, once the bibliographic details like author, title, edition, publisher, price, ISBN number, etc are entered at the time of ordering, the same data can be used for accessioning, cataloguing (OPAC), and circulation. Other important factors associated with automation are speed, and accuracy. One can imagine the time saved in literature searches and in preparing bibliographies. Automation also offers freedom from doing repetitive and routine works as well as enables providing efficient services properly and more efficiently cutting down time and improving productivity

#### Disadvantages

These are standing by to using software and henceforth are so-called off-the-shelf. There are advantages as well as disadvantages in using them. The greatest disadvantages are the cost of purchase other software and hardware and the cost of maintenance. The library has to pay the supplying company an annual maintenance fee on top of the cost of the software. Because of these costs, many libraries still do not have an ILS.

- Unanticipated Efforts: A library may find that it needs to do a great deal more work than anticipated to adapt the software to local needs.
- ✓ Lack of coordination: The decentralized development of open-source software means that progress can be chaotic and there may be delays in addressing bugs.
- Inadequate technical support Documentation tends to be limited and aimed at developers. Nearby generally is imperfect practical funding, particularly for consumers of the software
- Customization: Open source software may not offer the level of customization as it is being done in case of commercial software.

#### CONCLUSION

Still, the greatest of the college librarians do not have announcement services; a respectable mainstream of librarians have information on the Internet and email. Meanwhile, modifications perform in Message Knowledge from time to time; the librarians must also be given an occasion to study them in instruction to advantage their readers. It is recommended that work-related training for the staff on these outlines is essential. The information of web methods of libraries is not talented. Greatest of the Librarians articulated that without the libraries are automated, around is no meaning to implement the network idea. It is recommended that the corresponding organizations of college libraries and library professionals must initiate footsteps in the direction of systematizing their libraries. A respectable popular of librarians has conveyed that they enjoy the information about audiovideo technology. All the librarians should be provided with the necessary training in the use of LCD, DVD, ejournals, etc. It is pure from the debate, that the librarians have a viewpoint near automation, application of Information Technology, etc. Hence, a kind of inspiration is protracted to them by way of simplifying them to be present small period courses on automation and information technology requests in libraries from time to time.

#### SUGGESTIONS

The endorsements are complete to help as a leader to all libraries in over-all and particularly college libraries in Eritrea which propose to systematize their library developments. The endorsements are for colleges' managements, librarians, other librarians and procedure creators. The customary library software must be fixed to fulfill the current and future needs of the college's library. For the reason that these kinds of software's are additional dependable, well-organized; stretchy, security, employer approachable, component established and modernized with the newest technology (worldwide values of MARC 21 and Koha etc)

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