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NEED FOR ADOPTION OF KOHA INTEGRATED LIBRARY MANAGEMENT SOFTWARE IN NIGERIAN ACADEMIC LIBRARIES

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ABSTRACT

The main objective of this paper is to justify the need for Nigerian libraries which have not automated their functions to adopt of Koha ILMS as their automation software. The paper therefore examined the need for automation, the reasons for the choice of Koha ILMS and potential benefits accruable to the libraries, and functions that Koha can facilitate their perform in their libraries. The paper identified the need for automation to include need to handle information explosion, for effective management of library operations, to improve operation speed, resource sharing etc; the choice of Koha was informed by its features and benefits which include Koha in Nigeria libraries could be linked to its powerful features which include MARC 21 compatibility, Z39.50 search, Customizability to suit individual library needs and taste, sustainability etc; the paper identified the library operations facilitated by Koha to include acquisition, cataloguing, circulation, patron management, OPAC etc. the paper however highlighted data migration and lack of skilled manpower as limitations to Koha adoption. The paper therefore recommends that a committee should be constituted to oversee the automation project. As part of feasibility study, the committee should visit libraries where Koha is in use for on the spot assessment. Management should make the requirements for installation available, while staff training should be conducted in-house. in addition, libraries in Nigeria utilizing Koha should come together to form a network of libraries to facilitate resource sharing.

Keywords: Academic Libraries, Automation, Koha, Nigeria, Software

INTRODUCTION

Libraries need up-to-date technology to effectively and efficiently function in the face of information overload and variety of media, and provide services to an increasing number of users. The use of computers in library operations gave birth to library automation and electronic library services such as database subscriptions, e-books and e-journal collections, open educational resources, open access collections, institutional repositories etc.

Therefore the fundamental motive behind the rapid adaptation of information technology in libraries is the desire for efficiency and rationalization in dissemination and management of library resources. Paper-based or traditional library has been seen to have serious limitations that make automated and electronic libraries a matter of necessity. For example, it is a strictly localized medium since the resources and the users must be in the same place at the same time and only one person can in general; use a single paper document at a time. Thus, multiple copies of books would be acquired for multiple users. Secondly, a book, as a medium is rather inflexible since no reformatting can be done, and finally collections on paper become bulky and create space and storage problems.

One of the factors that have influenced the application of Information Technology in libraries is improved performance and efficiency as well as reduction in space requirements. Other factors include decline in the price of personal computers, new forms of wide area networks using even virtual connections and availability of high density distribution media e.g. the CD-ROM.

We must further realize that library services are labour intensive and about two-thirds of library budget usually goes for labour and therefore since machines can be made more cost-effective in ways that human beings cannot, the use of machines is a viable alternative to increasing labour costs. Consequently, automation of library operations makes easy and less tedious the performance of library operations. Automation improves cost-effective performance of library functions.

Library automation covers routine library processes such as cataloguing, circulation, serials management with the aim of reducing cost and at the same time, improving scope of services and efficiency of these operations. One of the greatest innovations in the library is the emergence of copy cataloguing. Original cataloguing has been a major challenge in the process of getting new

library materials to the shelf. It is very slow, tedious and demanding. But with library automation, especially with the Z39.50 search innovation, cataloguing has been revolutionized. In addition, the online public access catalogue (OPAC), which is the online version of the card catalogue, has made searching the library and its collection very easy and enjoyable.

STATEMENT OF PROBLEM

The major goal of any library is to provide access to relevant and adequate information to information seekers in a timely manner. However, many libraries in their current state cannot meet this goal. The reason is simple. The library has not embraced the deployment of critical library infrastructure, especially the adoption of automated library system. This may be as a result of resistance to change, financial constraints, lack of will-power in the part of management or library leadership, lack of technical know-how or any other factor. No matter how much the library tries to meet its mandate of providing adequate information to its users in this digital age, without library automation, that mandate is dead on arrival. Unsatisfied library users no longer visit the library to use its resources but have devised means of meeting their information needs by searching the internet and online-libraries. Without automation, libraries can no longer keep track of publications in this digital era as most of them are available in electronic versions (such as e-books, e-journals, database, open access etc). Many publishers around the world no longer publish hard copies. Moreover, the cost of imported books has sky-rocketed even beyond the reach of many libraries. Librarians in such libraries still spend most of their times carrying out routine manual activities, which are very slow, error-prone and cumbersome, unlike librarians in automated libraries who perform their functions with speed, precision and with ease. This paper therefore seeks to x-ray the need for the adoption of Koha ILMS in the automation of academic Libraries in Nigeria.

OBJECTIVES

The purpose of this paper is to examine the need for the adoption of Koha ILMS in the automation of academic Libraries in Nigeria. The specific objectives are:

1. To examine the need for automation of academic Libraries in Nigeria.
2. To explore the reasons for the choice of Koha ILMS and benefits accruable to the libraries.
3. To identify the library functions that Koha can perform.

NEED FOR AUTOMATION IN ACADEMIC LIBRARIES IN NIGERIA

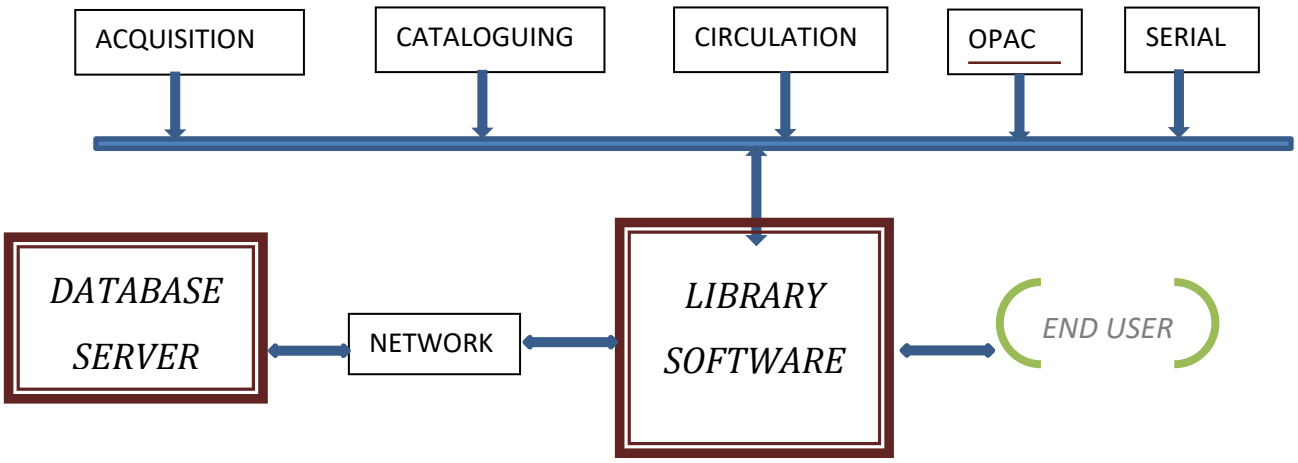

Fig. 1 Automated Library System

In a traditional library enterprise all the works are being done manually. From acquisition to accessibility to readers' services, almost everything is done manually. Even the E-library as it were, the students must come to use the computers to access the internet, and not the library's Collections. Therefore, the needs for automation of academic Libraries in Nigeria are given below:

1. Information Eruption: Due to information explosion tones of information is producing day by day. To handle a Meta Data activity, automation of the Library is essential.
2. Various types of information in various formats: Now a days information is being generating in various formats viz. txt, jpeg, pdf, docx, gif etc. To handle the data in various formats, automation of the Library is essential.

3. Effective Management: To handle big collection and various patrons an effective library management is essential which can be done only through automation of the Library.
4. Effective approach towards Information Storage and Retrieval: Library Automation is efficient approach towards ISAR. Any information can be stored and retrieved within friction of seconds.
5. Time saving: Library Automation not only saves the time of the readers / users but also it saves the time of library staff as ISAR can be done without wasting time of every one.
6. Better Library Services: Library Automation is very helpful in providing best library services as compared with manual system.
7. Proper utilization of Resource Sharing Activities: As every record / data / information is digital which can be accessed worldwide. One can share their resources to everyone when and where it is demanded.
8. Economic Feasibility: Due to Library Automation effective resource sharing activities can be performed. There is no need to invest on such information which are available with other libraries they can be gathered via Resource Sharing hence forth Library Automation is economically feasible.
9. Reduces Operating Cost: Expenses incurred in manually managing the library is very high because of a lot of paperwork, manpower, printing cost, etc. involved on a daily basis. Putting all the information on digital media frees you of all the printing and papers, once and for all! You or your patrons can easily search the whole library in just a matter of a few clicks and few minutes. The manual process takes a much longer time and also requires one to be physically present in the library. The paperless solution, reduced man-hours, increased efficiency all lead to lower operating costs.
10. Helps You Manage The Library Constructively: Thousands of books, thousands of magazines and heaps of journals are definitely difficult to manage, not to mention the time and manpower required. Using a library management system you can very easily, quickly and constructively carry out all the activities such as - acquisition, cataloguing, stock verification, circulation, serial control, binding, indexing, etc. Since the whole process is automated, the tasks are streamlined, which means you do not have to do repetitive work. Also, needless manual practices eliminate the risk of human errors and increase efficiency considerably.

11. Makes Your Library A Smart Library: An organized, neat and systematic library is sure to prosper rather than a poorly organized one. The library automation software helps you make your library systematized, organized and smart. A smart library is not just neatly organized but also the one which facilitates quick and effortless searching of books. The software enables you or your patrons to find a book in your library in some seconds via powerful search tools. One more advantage of using the software is that you can also search for rare books or apply for interlibrary loans and vice-versa. This makes it very easy for your students to access all the books of many libraries from a single place.

THE CHOICE OF KOHA ILMS FOR ACADEMIC LIBRARIES IN NIGERIA

Koha is an Integrated Library System (ILS) that is freely available to the public. It is used to automate library functions from checking books in and out and creating library cards to more administrative tasks such as statistical work and setting up branch libraries. The word Koha is a Maori word meaning gift or donation. Koha development is steered by the collaboration of a growing community of libraries and a team of volunteers from around the globe. Koha is developed using technologies like Perl (Practical Extraction and Report Language), HTML, CSS, Javascript, Apache and MySQL. Development started in New Zealand in 1999-2000 by a web development company called Katipo for libraries in rural areas of New Zealand. Katipo worked with Horowhenua Library Trust (HLT) to write the first version of Koha, and then released the code under the GPL (The GNU General Public License) (Koha Library Software Community, 2011). There are more than 500 libraries including academic, public and special libraries that use Koha as their ILMS including such large libraries as Delhi Public Libraries, Antioch University as well as a major Koha consortium in Vermont called VOKAL (Vermont Organization of Koha Automated Libraries) (Sirohi,& Gupta, 2010). Other libraries that are using Koha include Michael and Cecilia Ibru University Library, Agbarha-Otor; Edwin Clark University Library, Kiagbodo; Babcock University Library; Federal University Lokoja Library; Adeyemi College of Education Library; Redeemers University Library; Tai Solarin University of Education Library, Lagos State University Library; Bowen University Library; University of Ilorin Library etc.

Apart from Koha, there are myriads of open source integrated library management software such as Genesis G4, Destiny Library Manager, Oliver v5, Insignia Library System, Accessit Library, SirsiDynix Symphony, Atriuum, OPALS, LIBERO, Library Manager, VERSO, LiBRARYSOFT, LIBRARIAN, Evergreen ILS, FIRST LMS etc.

Among all the library management software listed above, Koha is the most adopted in Nigeria and this is evident from the findings of Iroaganachi, Iwu-James and Esse, (2015) which revealed that Koha software has gained popularity over the years especially in academic Libraries in Nigeria, being the highest adopted library software in the country. The adoption and usage of Koha in Nigeria libraries could be linked to its powerful features which include:

- MARC 21 compatibility
- Z39.50 search
- MARC Import/Export capabilities
- Multi-language web OPAC
- Comprehensive advanced search
- Customizability to suit individual library needs and taste
- Printing functions for barcode labels and reports
- Virtual book shelf
- Copy cataloguing
- Branch library management and items transfers
- Budget management capabilities
- Koha is flexible as it can run in Linux, windows etc.
- Interface for both librarians and users
- Union catalog facility etc.

The following are potential benefits accruable to libraries that adopt Koha ILMS:

Improved Users Services: Automating with Koha facilitates easy and speedy processes in acquisitions, cataloguing, circulation etc. in a more efficient manner. Thus, materials are easily acquired, and new acquisitions get to the shelves speedily in manner that is practically impossible in a non-automated library. The extra time saved is channeled into increasing the scope of services offered in the library.

Improved Cataloguing: Automated cataloging standards, such as MARC (Machine Readable Cataloging), and the Z39.50, allow for quicker cataloging of library items. The Z39.50 Cataloging service allows libraries to access WorldCat to search and retrieve MARC records for cataloging, edit records in their local systems, and set holding information in WorldCat. It is estimated that original cataloguing takes between about 20-30 Mins., while copy cataloguing facilitated by Z39.50 takes 3-5 Mins.

Easier Access: Not only does Koha OPAC make it easier to find books within the library, but it also makes it easier to access materials in other libraries and online resources. Koha adoption allows the library to be more flexible in content and in use.

Collections: Adoption of Koha in the library allows for an improvement in the form, scope and quality of information resources that are available in the library's collection. It helps in tracking the circulation of library resources also.

Sustainability: Koha, unlike many library management software, is sustainable. The reason is because it constantly updated to suit technological advancement by a "Community" of libraries. Many library automation projects in Nigeria have packed-up as a result of unsustainable library software.

Customizability: Koha is flexible and could be adapted to suit a library's peculiar need without any violations.

LIBRARY FUNCTIONS AIDED BY KOHA ILMS

Koha aids the performance of the following library functions:

1. **Library Public Catalogue**

Koha provides a full-functioned Online Public Access Catalog (OPAC). With Koha:

- Library users can carry out searches using many approaches that are impossible in the conventional public access catalogue (Keyword, Subject, Title, Class, Barcode, author, publisher, etc.). As in the librarian interface, they can order the results according to several criteria.

- Library users who are logged-in members can place reservations on library items.
- Library users can select records from an OPAC search and retrieve them by e-mail, either in human-readable form or in an ISO2709-format file.
- Library users can submit suggestions for acquisition. Koha automatically informs the user (by e-mail) of the action taken on each suggestion. These functions are practically not possible in the traditional library setting.

2. **Administration/Authority Control**

The administrator can allot one or more of the following capabilities to each staff member:

- Super-librarian: access to all functions. This is usually the Head of the library.
- Circulation: carry out circulation tasks.
- Catalogue: search the catalogue.
- Parameters: administer the system parameters.
- Borrowers: manage the public users (addition, modification, restriction, etc.).
- Permissions: administer staff access to functions.
- Reserves for others: place reserves on items for any borrower.
- Reserves for oneself: place reserves for oneself.
- Loan: loan items to borrowers.
- Cataloguing: manage the catalogue.
- Charges: manage the fines and fees levied against members.

Just like departmentalization of functions in a conventional library, this function enables the librarian or administrator to share responsibilities among staff members.

3. **Circulation (Charging and Discharging)**

This function allows users to borrow books from any branch (not just the branch where the borrower first registered). It further facilitates the:

- Returning an item at any branch.
- Reserving an item at any branch.

- Circulation rules can be easily be defined very finely by the library explaining clearly each member category, item category, and holding branch of the item, the duration of the loan and the maximum number of books loan able can be defined.
- Returning items ("checking-in") is extremely easy as the circulation staff can simply scan the barcodes of the items being returned.

4. Cataloguing

- MARC Management: The cataloguing function is one of the principal strong points of this software. Several "frameworks" can be defined to do different cataloguing for monographs, electronic resources, periodicals, etc.
- Export/Import: Importing records in ISO2709 format (the MARC reservoir) and through Z39.50 (client) for fast cataloguing.
- Copy records: One or more copy records can be attached to each bibliographic record.
- Fast cataloguing: To accelerate cataloguing, Koha provides, Management of a MARC record reservoir, in ISO2709 format, A Z39.50 client that can access several Z39.50 servers.
- MARC view and simple view: Catalogue data can be displayed in MARC format, in simplified form.
- Searching: searches can be performed on any MARC field. Advanced functions, search on one word, the beginning of the field, greater than, less than, etc are also available.

Note: Records can be added to Koha via original or copy cataloging. You can also choose to use the basic or advanced cataloging interface for all of your work. If you would like to catalog a record using a blank template in the basic editor, you will click the ‘New record’ button. If you want to catalog a record based on an existing record at another library in the editor you last used (basic or advanced) then:

- Click ‘New from Z39.50/SRU’
- Search for the item you would like to catalog using author, title, ISBN etc.

5. Serials Management

- It is possible to register subscriptions with reviews, and to track the arrival of periodicals.
- Koha manages late issues, skipped issues, and claims with the suppliers.

- Koha manages complex classifications, allowing the librarian to work with eleven different publication periods (from daily newspapers to annual publications), with delayed publications, and with publications out of sequence.
- A state of the collection can be defined which will synthesize the missing publications, received publications, etc.
- The state of the collection can be displayed differently in the OPAC and in the librarian interface.

6. **Acquisition**

- Full acquisitions: The full acquisitions module makes it possible to carry out selection, ordering, review of collection, manage Budgets and book funds, , vendors stock lists management etc.

7. **Reporting**

The Koha Software helps to track records. Reports are used to generate statistics, member lists, shelving lists etc. Koha's data are stored in a MySQL database which means helps the librarians to generate nearly any report you would like by either using the guided reports wizard or writing your own SQL query.

8. **Patron Management**

This capability enables you to perform functions of user registration as is done in the circulation unit of the library. Koha allows you to:

- Add a new patron
- Add a Staff Patron
- Add a Statistical Patron
- Duplicate a Patron
- Add Patron Images/photos
- Editing Patrons anytime there is a change in name status or user category
- Managing Patron Self Edits (this function allows the patrons to manage their own records while the librarian or administrator) manages the record.

REQUIREMENTS FOR KOHA INSTALLATION AND USE

Before starting the Koha installation, be sure that your computer meets the system requirements for both Ubuntu Desktop as well as Koha. However, the requirements for Ubuntu are more intense than Koha so the only requirements with which we should be concerned are those for Ubuntu Desktop (Cannonical Ltd., 2011). Even these requirements can be met by a good computer from about 2000:

- 1 GHz processor
- 1 Gigabyte of RAM
- 15 GB of hard drive space
- Monitor with at least 1024 by 768 screen resolution
- A USB port or a CD/DVD ROM
- Network facility
- Internet access
- Bar code Reader
- Bar code Printer
- End user systems

LIMITATIONS OF KOHA ILMS

Koha does have a few limitations as your library is still attached to a vendor of some kind. In other words, the library is still not fully in control of information on its Koha server. Somehow, the community that is responsible for maintaining Koha, has access to the server. Also, data migration from older software packages to Koha is cumbersome and requires a lot of expertise and technological deployment. Other challenges include lack of skills and manpower, power supply etc.

CONCLUSION

The main purpose of this paper is to x-ray the need for the adoption and use of Koha ILMS in academic Libraries in Nigeria towards meeting the increasing needs of their user communities. The adoption of KOHA Integrated Library Software is a great opportunity for Nigerian academic and research libraries to expand their technical capabilities because of its open technology. It is therefore imperative to deploy Koha in Nigerian libraries and save staff strength, time, and improve efficiency in library operations.

RECOMMENDATIONS

1. Management of each institution should set up a library automation committee to oversee the automation project.
2. The committee should undertake a feasibility study to ascertain the suitability of Koha in their library. As part of the study, the committee should visit some of the libraries in Nigeria where Koha have been adopted is being used. Emphasis should be on the strengths, weakness, opportunities, and threats of adopting Koha.
3. Management should make the requirements for installation available.
4. Training of all library staff should be conducted in-house before the full take off of the new system.
5. Regular power supply and internet access should be made top priority.
6. All libraries in Nigeria utilizing Koha should come together to form a network of libraries to facilitate resource sharing.

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