



OSS AND KOHA LIBRARY MANAGEMENT SOFTWARE: AN OVERVIEW

¹Vijaykumar Kaushikbhai Suthar, ²Dr.Bhartiben M. Solanki,

¹Research Scholar, ²Research Guide,

¹Hemchandracharya North Gujarat University, Patan, India

Abstract: The most potent instrument for transitioning traditional to automated, automated to electronic, electronic to digital, and digital to virtual library settings is library software. In libraries, computerization and automation improve the effectiveness and efficiency of library services. As a result, several libraries used automation to meet their users' needs. Open source library software is now available on the internet as a collection of tools for building and improving library operations. The article covers an overview of open source software as well as Koha. The first open source library software, as well as the benefits of open source software, Koha architectures, operating skills, installation, and software requirements.

Index Terms - Koha, library automation, Open source software.

I. INTRODUCTION

In today's society, library automation has become a requirement. We can see the rise of information and communication technologies (ICT) and its usage in libraries in the twenty-first century. A change service and a source were formed as a result of the use of computers in libraries. Librarians turned to library automation to give quick and effective service to their vendors. Currently, library management software is an integrated system based on a relational database design, with system files integrated in such a way that changes in one file trigger changes in other files nearby. Vendor-developed software is quite expensive, and it costs them a lot of money. It also makes them reliant on the provider in the event of a problem. The professional began to think differently as a result of the open source software.

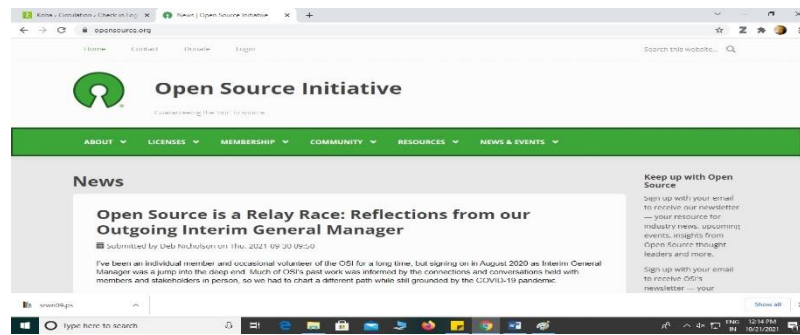
II. OPEN SOURCE SOFTWARE

The two types of LMSs are closed source commercial LMSs and open source free-to-use LMSs. The following are the requirements for a program to be termed "free": it can be used for any purpose, it can be changed to match individual needs, and the source code and software can be easily shared with others. In other words, any software that allows users to share, study, and alter it is deemed free. Open source code, according to the Open Source Initiative (OSI), encourages reusability and quality in software by allowing for independent peer review and rapid evolution. A program's license must guarantee the freedom to read, redistribute, alter, and utilize it in order to be certified as open source. In 1983, Richard Stallman established the open source movement. In 1997, the foresight institute's Christine Peterson invented the term "open source."

It refers to the four different sorts of freedom given to software users.

- The freedom to use the program for whatever we identical
- The freedom to share for copies so that we neighbor can benefit
- The freedom to improve the program and make it public so that everyone benefits having access to the source code is required for this.
- The ability to study the program's operation and adjust it to our own needs. In order to do so, we must have access to the source.

The program is free software if the user has all of these freedoms. As a result, you should be able to redistribute copies to anyone, anywhere, with or without modification, either freely or by altering a free for distribution license. You don't have to ask permission to do these things since you're free to do them. A specific license known as the GNU license is often used for the distribution of open source software. The free software organization GNU provides an open source software directory on its website. Since 2003, UNESCO has been working on the directory, which was first published in 1999. The following is a list of open source software that complies with industry standards.



III. EASE OF USE ADVANTAGES OF OPEN SOURCE SOFTWARE

- Libraries can tailor this software to match the demands of their customers;
- OSS allows libraries to be self-sufficient.
- It assists libraries with cost-effective financial management, allowing them to reinvest surplus funds in other useful services.
- Fault debugging is an important OSS application.
- Provides a new dimension to librarians' service and position.
- OSS is unaffected by the kind or size of the library.
- It enhances librarians' abilities to implement, administer, and support an ever-growing range of information goods and services.

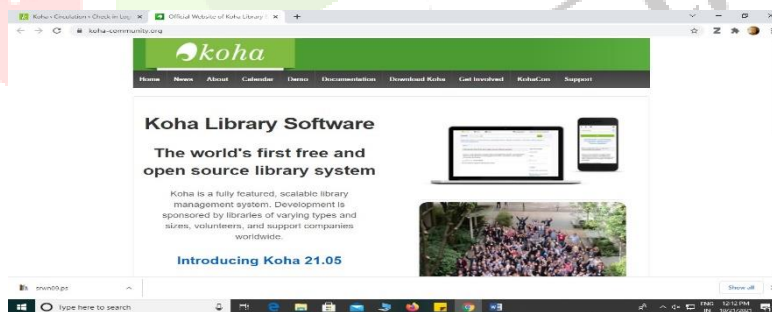
IV. OPEN SOURCE PROGRAMS HELP THE LIBRARY RESOURCE CENTER

The use of library items has increased dramatically since the library was beset by a serious financial crisis. The expansion of information has inspired the creation of open source software, as has the reliance on suppliers to correct any weaknesses in proprietary software. Libraries can use OSS licenses to save money on software and put it toward other things. OSS products aren't restricted to a single vendor. Closed-source software systems continue to have security and performance issues, and their costs are rising. Apache is an example of open source software, which means that anyone with access to the source code can modify it. Linux is an operating system, Mozilla is a Netscape-based web browser, Open Office is a replacement for Microsoft Office, and Perl is a powerful programming language. We use My SQL and PostgreSQL for database administration.

Open source software can be downloaded and used for free, or it can be purchased from firms (such as Red Hat and SuSE) who have bundled open source software for a lower price. Due to a lack of code rules and standardized open standards, libraries and library projects may become open source. Indeed, one of the founding principles of the American Association of Research Libraries is that state libraries shall incorporate interoperability and open source software for information dissemination and administration into the systems they create.

V. KOHA LIBRARY MANAGEMENT SOFTWARE

Koha is the first open source integrated library solution, created by Wellington-based kapito communication limited for the Horowhenua Library Trust, a regional library system near Wellington. It is a software version that was launched in the year 2000. It is presently on version 21.05. Koha is being developed by a growing group of people who are collaborating to meet their technological objectives.



The future set of Koha is always evolving and extending to meet the needs of its users. Koha is a comprehensive library management system with all the bells and whistles. It's a library management system with a web interface. Koha is a fantastic open source integrated library system that is currently in use by numerous libraries across the world. A library management system is an enterprise resource planning system designed specifically for libraries. Koha uses Linux-based free source technologies such as Pearl MySQL and Apache to communicate over telnet. Koha supported MARC 21 and UNIMARC bibliographical formats and adhered to all library standards.

1. Koha Features

- Open source software that has won awards and is available for free Koha has a number of features
- Its offerings include reading groups, book clubs, and other community outreach initiatives, allowing libraries to manage them.
- Libraries can easily undo entire important batches from the catalog rather than having to delete each one individually.
- Improve the matching policy criteria for the 001 and 035 tags, allowing libraries to update their data with the latest version.
- Adhere to all industry requirements and standards. MARC record storage using XML tags Z39.50
- 9.50, SRU, and SIP2 allows for rapid access.
- Print your barcode
- Provide online reservations

- Export and import records
- SQL MySQL is a major industry standard database type.
- User-friendly interface for librarians and users
- Koha is a free, award-winning library management system.

Table 1 Library Automation Software's Comparison

Core Service	SOUL 3.0	LibSys	Alice for window	LibSuite	Koha
Acquisition	✓	✓	✓	✓	✓
cataloguing	✓	✓	✓	✓	✓
circulation	✓	✓	✓	✓	✓
Serials	✓	✓	✓	✓	✓
Web OPAC	✓	✓	✓	✓	✓
Data exchange	✓	✓	✓	✓	✓
Biblio format	✓	✓	✓	✓	✓
Standard	✓	✓	✓	✓	✓
Approximately Cost	80,000	4.5 Lakh	70,000	4 Lakh	Free

2. Koha operating skills requirement

- Cataloguing abilities are required for the cataloguing module.
- The Koha UI is user-friendly and ergonomically constructed. Such as retrieval tools for Marc Z39.50, how to add holding information, and so on.
- Computer abilities are essential to understand the system quickly and effectively.
- Employees should be knowledgeable about information technology as well as the environment.
- Administrators should know how to keep the operating system up to date.

3. Koha System architecture: Koha is based on a client-server architecture.

4. **Network server:** On a UNIX, Linux, or Mac server, Koha can be installed. Although Koha can run on any advanced operating system, the most reliable version of Debian Linux is recommended.

5. **Client workstation:** In the workplace, Koha requires the use of a web browser. As a result, Koha is compatible with Windows, Linux, Macs, and even UNIX workstations. Koha, as well as a TCP IP network, are required for the run. Low-bandwidth connections are supported by Koha. It can be used on standard phone lines without issue.

6. **Koha installation:** The library needs specific hardware and internet to use Koha and librarians have basic knowledge of the Linux operating system. Koha is very easy to install in a local server or cloud. Koha can also be installed by studying YouTube, Blog, and User Manual. Spoken Tutorials also provide a detailed overview of Koha installation and all modules. In any organization, the librarian can install Koha in his own way. Any computer-savvy person in the organization can also install Koha. Koha can also be installed by other companies at a very low cost with an annual maintenance charge. Apart from this, workshops and seminars on the installation of Koha are also organized from time to time by various associations of the library.

VI. CONCLUSION

Now libraries are turning to open source automation. In this group, there is a huge list of software that is both indigenous and manufactured around the world. The first open source software on the list, Koha, is now in its twenty-first version. In a number of respects, it improves on its predecessor, and it is widely available for usage on the internet. Koha is one of the greatest web-enabled open source library automation tools. The majority of libraries use open source software due to the high cost of standard software. Many organizations provide customer support to the library on the basis of AMC, while Koha is available free of charge and provides all needed software modules, such as technical assistance. Koha is a robust open source library management application that can be customized from the ground up to organize, search, and retrieve serials, as well as manage missing issues. This open-source software is updated and adjusted on a regular basis to match the library's demands.

Society has benefited greatly from the open source and free software movements. Individual users benefit from the OSS's inherent strength. Aside from that, the widespread adoption of OSS brings with it the benefits of open standards and open data. Without the assistance and incentive of management, the aforesaid software are not be implemented.

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