International Journal of Research in Library Science (IJRLS)

ISSN: 2455-104X

DOI: 10.26761/IJRLS.8.4.2022.1602

Volume 8, Issue 4 (October-December) 2022, Page: 163-167, Paper ID: IJRLS-1602

Received: 4 Nov. 2022 ; Accepted: 23 Dec. 2022 ; Published: 31 Dec. 2022

Impact on Open Source Software's (OSS) on Library Information Centre: An Overview

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ABSTRACT

In this era of transition from information age to knowledge society, the libraries have much greater challenges to face. The whole insight of library has now changed from collection of books to a single window knowledge bank. This paper discusses the definition and features of open source library management software, criteria of selection of best open source library management software, their, advantages and limitations. Open Source library management software is a solution to reducing that cost. The paper describes in brief about the feature of some of the open source library management software like Greenstone digital Library, DSpace, KOHA, E-Prints, NewGenlib, OpenBiblio, etc., which are useful for developing digital library and institutional repositories.

KEYWORDS: DSpace, KOHA, E-Prints, ABCD, Greenstone Software.

INTRODUCTION

Open Source Software (OSS), term was coined by Eric Raymond, it is the software for which the source code is freely and publicly available, though the specific licensing agreements vary as to what one is allowed to do with that code. Open Source Software has gained importance worldwide and in the last few years open source has triggered a vast volume of research and has entered the mainstream software market, with the adoption of packages such as Linux(Operating system), mySQL (relational database), Perl, Python Apache Web server and the Zope content management system.

Evaluation of Open Source

The open source movement started in the 1980's with Richard Stallman who resigned from MIT founded GNU project. Unix is an operating system, whose functionality, he wanted to copy and build upon, but it required community effort.

Milestones in the history of open source software are:

1983-Richared Stallman formed GNU Project

1985 – Creation of Free Software Foundation

1991 - Development of Linux kernel by Linus Torvalds

1998 – Open Source Initiative (OSI) formed by Eric Raymond.

Definitions of Open Source Software (OSS)

"Open source promotes software reliability and quality y supporting independent peer review and rapid evolution of source code (Kamble, 2012). To be certified as open source, the license of a program must guarantee the right to read, redistribute, modify, and use it freely" (Rich christle, 1999).

Limitations with Open source Software

Open source software (OSS) is computer software whose source code is available under a license for users to look at and modify freely and permits user study, change, and improve the software, and to redistribute it in modified or unmodified form.

For any up graduation/change in the open source software the library needs support. In case of open source software there is no body to solve problem, either one have to hire some expert to solve problem or library should make arrangement with some company. Open source products require technical expertise to operate and maintain open source costs more to support because the software is typically self supporting.

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. Selections of Library Management software may consist the following points/steps, which might help the librarians to select the right software for their house – keeping operations as well as information retrieval.

How it matches the library's requirements

- Product quality
- Features and functions
- Staff training and support service
- Operating system
- Hardware and Software requirements

Reasons for the success of open source software's

Openness, Flexibility, Speed and Motivation

Openness

Generally open conducted development corresponds to the academic tradition to directly exchange results of scientific work, provide research data etc. So far, that 'rule' attaches itself to the experiences of many people uses established communication channels and co-operation methods.

Flexibility

Many Open Source Software projects integrate a large number of developers with very different emphasis and background. This facilitates the understanding for special requirements and, at the same time, offers the potential to quickly implement needed adjustments.

Speed

Speed by which there is reaction to problems, errors or security leaks of the software is legendary. A large group of people that want to make a product successful immediately undertake the tasks and test new version's is significantly faster and more successful than the proprietary competitors.

Motivation

Open source software developers are part of a community that works on a collaborative success. Often they are, by the way, no part-time hobby developers but professional developers that create OSS full-time.

Open source software in the field of Library and Information Management

In comparison to other sectors, the emergence of 'Free/Open source software' in the field of Library and Information Management are more viable option as the cooperation and coordination are they key issues in library services. Library professionals have always focused on cooperation, resource sharing, consortia and on open access, standards, archive initiatives, and so on in order to help each other in collection development and implementation of tools and technologies, among others.

Selected Open Source Software's

- **Koha**
- **ABCD**
- **NewGenlib**
- **DSpace**
- **Greenstone**
- **Evergreen**
- **EPrints**
- **Avanti**
- **Fedora**
- **OpenBiblio etc.**

KOHA

KOHA has the distinction of being the first open source integrated library management system, which includes all the main functions related to library management It is web-based open source software distributed under the general public licence. Koha supports windows as well as Linux platform. The first version of it was released in year 2000.The "KOHA" development Team offers to host the website for KOHA library system on its server. KOHA also has the capacity to manage digital libraries and online and offline e-resources.

Features of KOHA

- KOHA web-based integrated Library Management system (ILS) with a SQL database backend with cataloguing data stored in MARC and accessible via Z39.50.
- Simple clear interface for librarians and members (patrons)
- Various Web 2.0 facilities like tagging and RSS feeds

- Union catalogue facility
- Customizable search
- Circulation and borrower management
- Full Acquisitions system
- Serials system
- Reading lists for members etc.

ABCD

ABCD represents the **"Automation of Libraries and Centres of Documentation".** The name itself expresses the ambition of the software suite to provide not only automation functions for traditional libraries but also other information providers such as documentation centres.

Features of ABCD

- ✓ The software is fully web-based, so can be used and managed from any current web-browser.
- ✓ All main functions of the library management are integrated using the same interface and databases.
- ✓ Bibliographic records can be imported from externals library catalogues / servers through Z39.50 facilities.
- ✓ Full MARC 21 compatibility with fields, indicators, and subfields define by Library of Congress.
- ✓ Access to both physical and electronic documents with the same interface.

NewGenlib

NewGenlib (New Generation Library) is an integrated library management system developed by versus solutions Pvt. Limited domain expertise is provided by kesavan institute of information and knowledge management.

Features of NewGenLib

- ✓ Functional modules are completely we based. Uses Java Web start Technology
- ✓ Compatibility – Complies with international metadata and interoperability standards: Marc-21 MARC-XML Z39.50, SRU/W OAI-PMH.
- ✓ Scalable, manageable and efficient
- ✓ Data entry, storage, retrieval in any Unicode 3.0 language.
- ✓ Allows digital attachments to metadata

DSpace

Dspace is an open source software package that provides the tools for management of digital assets, and is commonly use as the basis for an institutional repository. It supports a wide variety of data, including books, theses, and 3D digital scans of objects, photo-graphs, film, video, research data sets and other forms of content. Dspace is also intended as a platform for digital preservation activities.

Features of DSpace

- ✓ DSpace is written in Java
- ✓ It uses a relational database, and supports the use of Postgre SQL and Oracle

- ✓ It currently support two primary web interfaces –a classic one which uses JSP and the Java Servlet API, and a newer interface based on using XML and XSLT Technologies.
- ✓ The system is organised into communities, sub-communities, and collections.
- ✓ Access control over items in repository at collection and individual item levels.
- ✓ DSpace can be used for self archiving by institutions and faculties. It provides long-term physical storage and management of digital items in a repository.

Open Source Software for Libraries

Over the last decade, there has been increasing interest in the potential of Open source software in the library sectors regarding the cost and performance of proprietary software products. In 1998, open source trend came in to libraries and libraries started making use of these Open source software products for different functions carried out in libraries. Basically open source software tools are helping libraries to overcome problems of high budget allocations for buying commercial solutions. Lot of research is going on in using open source software based applications which are useful in libraries.

CONCLUSION

Libraries with small budgets always consider automation of housekeeping operations as a financial burden due to the high cost of commercial software. However, development of Open Source software is an effective way to automate library operations without undertaking substantial financial investment. Libraries are taking up open source software as a way to reduce the costs of expensive commercial products and as a viable alternative to the often expensive proprietary library automation systems.

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