

# “Open Source Softwares for Libraries: An Overview”

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## **ABSTRACT**

*An Open Source Software (OSS) is a software, that users have the ability to run, copy, distribute, study, change, share and improve for any purpose. Information and communications technology has played a major role on libraries. Libraries have now been completely dependent on providing new services to its users based on computer applications. Different computer programs are available for libraries to provide range of services from library automation, library website management, knowledge management, digital library management to document editing. To manage vast amount of digital information, libraries need some computer applications which takes care of their requirements.*

**KEYWORDS:** Open Source Software, Information Communication Technology (ICT), OSS, Library Technology, Information Technology.

## **INTRODUCTION**

Open Source Software is a computer software which permits the users to study, change and improve the software and to reallocate it into modified and unmodified forms. The software provides source code that is available under a license. It is developed in a public or co-operative manner. Open software is also known as free software which can be accessed by any users. There are two types of software in open environment that is one is 'free software' and another one is *Open Sources Software (OSS)*. In free software, the resources are readymade programmers that are made available by the creator through internet. This helps the users to download, install, make modification and distribute the program as per their needs. Most of the software that we all use every day is known as "proprietary", which in a nutshell means that it costs money and that the actual code of the software is restricted, in that the code of the software cannot be modified, copied, or changed from its original construction. The code is "unreadable" and pretty much is what it is.

Open source software, on the other hand, is quite the opposite. The open source mentality revolves around sharing and collaboration and these two important elements describe open source software perfectly. First and foremost open source software is free for anyone to have; more importantly, not only is the software free, but it is also free for anyone to copy, hack, modify, etc. This increases the possibilities of a software program's potential because of this free-thinking model. Many large groups of programmers have customized basic open source programs into whatever they deemed necessary, and have in turn given these modifications back to the open source community for free where others can continue to build on their work. There are many different kinds of open source software solutions are there today that could be embraced by the library. There's basic operating system, document processing programs, Library Management Software (LMS) and Digital Library software.

### **DEFINITION OF OPEN SOURCE SOFTWARE**

**According to Wikipedia** “*Open Source Software (OSS)* is a type of computer software in which source code is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute the software to anyone and for any purpose. Open Source Software may be developed in a collaborative public manner. It is a prominent example of open collaboration”

**According to Mogan** “*Open Source Software* is more about building communities and less about computers programs. It is more about making the world a better place and less about personal profit”

### **ADVANTAGES OF OSS**

- **Lower Software Costs:** Open source solutions generally require no licensing fees. The logical extension is no maintenance fees. The only expenditures are for media, documentation, and support, if required.
- **No Vendor Lock-In:** Vendor lock-in is the major problem faced by IT managers in an organization Lack of profitability, expensive license fees and inability to customize are some problems. OSS gives you freedom and effectively address all these.
- **Quality Software:** Evidence and research indicate that open source software is good stuff. The peer review process and community standards, plus the fact that source code is out there for the world to see, tend to drive excellence in design and efficiency in coding.
- **Support:** Support is available for open source often superior to proprietary solutions. First open source support is freely available and accessible through the online community via the Internet. And second, many tech companies are now supporting open source with free online and multiple levels of paid support.
- **Simplified License Management:** Obtain the software once and install it as many times and in as many locations as you need. There's no need to count, track, or monitor for license compliance.
- **Lower Hardware Costs:** In general, Linux and open source solutions are elegantly compact and portable, and as a result require less hardware power to accomplish the same tasks as on conventional servers (Windows, Solaris) or workstations. The result is you can get by with less expensive or older hardware.
- **Scaling / Consolidation Potential:** Again, Linux and open source applications and services can often scale considerably. Multiple options for load balancing, clustering and open source applications, such as database and email, give organizations the ability to scale up for new growth or consolidate to do more with less.
- **Unified Management:** Specific open source technologies such as CIM (Common Information Model) and WBEM (Web Based Enterprise Management) provide the capability to integrate or consolidate server, service, application, and workstation management for powerful administration.

## **OPEN SOURCE SOFTWARE FOR LIBRARIES (LIBRARY AUTOMATION)**

There are ranges of open source library automation software available. Out of the available open source software very few are updated/ upgraded regularly and have a large user group. The CDS/ISIS, is first information storage and retrieval system developed by UNESCO available free but not under open source license terms and conditions and is heavily used only to un catalogued library collections. Koha, Evergreen, Invenio, Senayan Library Management System, NewGenLib, E-Granthalaya (not open source but available minimum fees after filling up the form), OPALS-Library Automation Software, ABCD, Glibms (not updated after 2002), Emilda (not updated after 2005), Open Biblio (not updated after 2008) are some of the software available free to end users for library automation. Out of these available software Koha has been installed widely across world and has a large user group from developed countries to developing countries hence it can be used in all types of libraries such as from School to National library. Many countries have used Koha effectively to complete their automation and bring their OPACs on the web. Recently during 2011, Breeding carried out a survey of automation software used in US academic and public libraries and it was found that many libraries in US continue to opt for open source ILSs rather than proprietary products. Evergreen and Koha ILS have become mainstream<sup>10</sup> in libraries from USA.

**Koha:** (<http://koha-community.org>) it is 100 percent open source integrated library automation software. New versions of Koha are released every fortnightly. It has a global community of its developers and has a large user-base across world (approximately more than 2000 installations). Many government organizations across world have officially decided to use Koha to support open source technology. Koha supports all modules of library applications as well as it supports for Z39.50 server, multilingual support, supports library standards such as MARC-21/UNIMARC, OAI-PMH, ISO2709 as well as support several next generation OPAC features. Koha community has been providing excellent support through its mailing lists and IRC rooms. Software has detailed online documentation manual and there are several power-point presentations available on various modules of Koha on internet. Many commercial vendors provide support for koha. In India OSS, Labs, Mumbai and Anant Corporation, Mumbai are the main commercial players who provide support for Koha. The software can handle millions of records and transactions. Koha can be the best option for libraries to bring their OPACs on the web from school libraries to national libraries. Libraries have to make sure that their OPACs are available on the web. Online bookstores provide details about any book published in any language but availability of a particular book can only be known if library catalogs are available on the web and can be Z39.50 compliant for searching and retrieving data.

**Digital Library Software:** Digital Libraries (DLs)/ Institutional Repositories (IRs)/ digital archives are been discussed heavily since 2000. Under open source license terms and conditions range of digital library software are available especially CDS Invenio, DoKS, DSpace, Eprints, FEDORA, Greenstone, MyCoRe, etc. Each of these software has their own advantages and disadvantages. DSpace and EPrints are the most popular software used across world for building digital repositories as per the statistics from Registry of Open Access Repositories (ROAR)/Directory of Open Access Repositories (DOAR).

**DSpace:** (<http://dspace.org>) It provides tools for management of digital assets and is commonly used for building institutional repositories. It was basically designed to manage, host, preserve and enable distribution of the scholarly output of MIT's faculty. In India, many institutions have taken steps to use DSpace for building digital repositories /

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institutional repositories. DSpace has more number of features over EPrints hence is heavily used across world. Prominent features of DSpace are that it supports unique identification number for every digital document that is added into DSpace repository. It provides digital preservation support, has excellent work-flow management and has access control privacy management, support authentication and authorisation policies at all levels.

**EPrints** (<http://www.eprints.org>) It is a generic archive software developed by University of Southampton. When first version of E-Prints was released it became the first and one of the most widely used free open access, institutional repository software for archiving pre-prints and post-prints of faculty members. Due to simple installation process, EPrints has been used by many libraries.

**NewGenLib** (New Generation Library) is associate degree Integrated Library Automation software package Developed by Verus Solutions Pvt Ltd and also the Kesavan Institute of knowledge and data Management, India. In March 2005, NewGenLib version 1.0 was free. Later versions two.0 and 2.1 have free. On ninth Jan 2008, NewGenLib has been declared as Open supply software package below wildebeest GPL License by the Verus Solutions Pvt Ltd, Hyderabad.

**Evergreen** is another open source software package that's licensed below wildebeest GPL. It helps the users to retrieve library materials, helps libraries in managing their day today activities. This integrated library system was employed by a lot of libraries round the world. It provides public catalogue interface and further as circulation, acquisition, resource sharing. It was initiated by Georgia library system in 2006.

**Biblioteq** could be a library management and cataloguing system adopted by many libraries. The software package is compatible with several of the Qt supporting systems. BiblioteQ could be a free and open supply library management software package.

**Invenio** is one among the safest, free and open supply Library automation software package solutions on the market these days. It's designed to manage the records; this software package comes with trendy design. The software package offers security to the users in terms of books connected knowledge and alternative data.

## **CONCLUSION**

Open source offers useful savings in time, money, and resources. Large percentages of library professionals have recognized potential for OSS systems and applications. Varieties of software are offered in the market. Libraries are fronting financial crisis for up gradation and technological operation in the library. Open source activity in the world brought drastic deviations. It opens the doors of the financial poor organization to upgrade their libraries with automation, repositories or creating the website. The above noted software and application are entirely open source and also very useful for libraries. With an exponential growth of information, user expectations are growing and more and more 'personalized' services are required. There is a great opportunity for librarians to play a leading role in organizing and presenting need based information by making use of these OSS tools. To save and preserve library data for future, it is important that libraries adopt as many OSS as they can and participate in the movement of sharing information globally with open standards and open formats.

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