



NewGenLib: OPEN SOURCE SOFTWARE'S IN INDIAN LIBRARIES

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Abstract: *Open system is not known for being easy to use. Usability could be one of the most effective changes to make in open source system. NewGenLib is an integrated library management system developed by various solutions pvt.ltd. Domain expertise is provided by Kesavan .In this paper highlights the features of NewGenLib open source software, the first of its kind developed in India. Discuss the issues like History of OSS, their Definition, selection criteria of library automation software; factors pushing the use of OSS; the features of NewGenLib open source software and evaluation of these in the line of advantages and disadvantages.*

Keywords: *NewGenLib, Library automation, Open Source, Software*

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1. INTRODUCTION:

The free software movement was launched in 1983. In 1998, a group of individuals advocated that the term free software be replaced by open source software (OSS) as an expression which is less ambiguous and more comfortable for the corporate world. Software developers may want to publish their software with an open source license, so that anybody may also develop the same software or understand how it works. Open source software generally allows anyone to make a new version of the software, port it to new operating systems and processor architectures, share it with others or market it. The aim of open source is to let the product be more understandable, modifiable, duplicatable, reliable or simply accessible, while it is still marketable.

Open Source definition, notably, presents an open source philosophy, and further defines a boundary on the usage, modification and redistribution of open source software. Software licenses grant rights to users which would otherwise be prohibited by copyright. These include rights on usage, modification and redistribution. Several open source software licenses have qualified within the boundary of the Open Source Definition. The most prominent example is the popular GNU General Public License. While open source presents a way to broadly make the sources of a product publicly accessible, the open source licenses allow the authors to fine tune such access.

2. DEFINITION OF OSS:

Open source means several things:

1. Open source software is typically created and maintained by developers crossing institutional and national boundaries, collaborating by using internet based communications and development tools.
2. Products are typically a certain kind of "free", often through a license that specifies that applications and source code (the programming instructions written to create the applications) are free to use, modify, and redistribute as long as all uses, modifications, and redistributions are similarly licensed.
3. Successful applications tend to be developed more quickly and with better responsiveness to the needs of users who can readily use and evaluate open source applications because they are free.



4. Quality, not profit, drives open source developers who take personal pride in seeing their working solutions adopted.
5. Intellectual property rights to open source software belong to everyone who helps build it or simply uses it, not just the vendor or institution who created or sold the software.

The Open Source Initiative (OSI) identified ten criteria for a software product to be called open source. The OSI certifies a software license as an 'OSI Certified License' on the basis of the following '**Ten Commandments**':

1. Free Redistribution

The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other fee for such sale.

2. Source Code

The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, downloading via the Internet without charge. The source code must be the preferred form in which a programmer would modify the program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.

3. Derived Works

The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.

4. Integrity of the Author's Source Code

The license may restrict source-code from being distributed in modified form *only* if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software.

Source code:

1. No Discrimination Against Persons or Groups



The license must not discriminate against any person or group of persons.

2. No Discrimination Against Fields of Endeavor

The license must not restrict anyone from making use of the program in a specific field of endeavor. For example, it may not restrict the program from being used in a business, or from being used for genetic research.

3. Distribution of License

The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

4. License Must Not Be Specific to a Product

The rights attached to the program must not depend on the program's being part of a particular software distribution. If the program is extracted from that distribution and used or distributed within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.

5. License Must Not Restrict Other Software

The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

6. License Must Be Technology-Neutral

No provision of the license may be predicated on any individual technology or style of interface.

3. FACTORS PUSHING THE USE OF OSS

According to Chudnov [2] there are three factors pushing the use of OSS in libraries:

A OSS licenses allow libraries to cut budget on software and use it to other issues needing more funds.

B OSS product is not locked into a single vendor. Thus even if a library buys an open source system from one vendor, it might choose to buy technical support from another company or get it from in-house experts.

C The entire library community might share the responsibility of solving information systems accessibility issues.



4. OSS IN LIBRARY & INFORMATION MANAGEMENT

Open source software has had an increasingly high profile in the library and information management profession since 1999. A September 1999 meeting of 80 senior American academic library managers created three “keystone principles” to set a foundation for future developments of library services. One of these, “libraries are responsible for creating innovative information systems for the dissemination and preservation of information and new knowledge regardless of format” had an action item to “create interoperability in the systems they develop and create open source software for the access, dissemination, and management of information”. Members of the profession have continued to have a high level of interest in OOS software, with more than 200 articles and conference papers published in the last 4 years to describe specific projects. The oss4lib portal (<http://www.oss4lib.org>), originally set up in 1999, listed over 1090 library-related projects in Nov 2008.

5. GENESIS OF NewGenLib

NewGenLib, stand for New Generation Library is an Integrated library automation system developed in India, has recently joined the open source community. This product was introduced in 2003, primarily intended for libraries in the developing world. It has been adopted by about 122 libraries, primarily in India, but with some sites in Syria, Sudan, and Cambodia. Two groups collaborate in the development and support of NewGenLib. Kesavan Institute of Information and Knowledge Management (KIIKM) is a non-profit professional trust that spearheads the project. This organization describes its primary goal as “acting as an independent, non-governmental centre for the study, training and advocacy in information and knowledge management.” The key activities and funding for the trust relate primarily to NewGenLib, the development of a textbook on library automation, and on the creation of e-learning modules on library automation. Versus Solutions, a small software development company performs the technical development of the software.

Both organizations are located in Hyderabad, India.

The software has been distributed under the traditional commercial license model since 2003. In January 2008, the decision was made to offer the system as open source software under the GNU GPL (General Public License). According to L.J. Haravu, one of the three principals of KIIKM, the move to an open source model would result in wider adoption of



the software. The organizations involved would move from a license-based business model to one based on service.

A new company was formed, Versus IT Services Pvt. Ltd., to provide service and support for the product as it moves into the open source realm. The relationship of this new company to NewGenLib closely resembles that of Liblime to Koha and Equinox Software to Evergreen. NewGenLib, as an ILS tailored for libraries in developing countries, may not necessarily be of direct interest to libraries in our region. It does, however, show that the open source approach for library automation system has also made some advances internationally.

NewGenLib version 1.0 was released in March 2005. On 9 January 2008, NewGenLib was declared Open Source Software under GNU GPL Licence by Verus Solutions.[7] Currently NewGenLib 3.0.3 U2 is the latest version running. It is estimated that 2,500 libraries across 58 countries are using NewGenLib as their Primary integrated library management system.

I think it is the only one community from India who gives a guaranteed release of new features and bug fixes for every 45 days.

6. SALIENT FEATURES OF NewGenLib SOFTWARE

- 1** Functional modules are completely web based. Uses Java Web Start™ Technology
- 2** Compatibility - Complies with international metadata and interoperability standards: MARC- 21, MARC-XML, z39.50, SRU/W, OAI-PMH
- 3** Uses chiefly open source components
- 4** Scalable, manageable and efficient
- 5** OS independent - Windows and Linux flavors' available
- 6** z39.50 Client for federated searching
- 7** Internationalized application (I18N)
- 8** Unicode 3.0 complaint
- 9** Arabic version available
- 10** Easily extensible to support other languages
- 11** Data entry, storage, retrieval in any (Unicode 3.0) language
- 12** RFID integration
- 13** Networking – Hierarchical and Distributed networks
- 14** Automated email/instant messaging integrated into different functions of the software
- 15** Form letters are configurable and use XML-based Open Office templates



16 Extensive use of set up parameters enabling easy configuration of the software to suit specific needs, e.g., in defining patron privileges

17 Supports multi-user and multiple security levels

18 Allows digital attachments to metadata

7. ADVANTAGES OF NewGenLib

The advantages of NewGenLib open source may be perceived as follows in the light of the advantages of open source software as pointed out by Richard W Boss

1 Ability to tailor to fit local needs: The availability of the source code means that a user can modify and enhance the software to more closely fit its own needs. Unlike with proprietary products, the user, not a vendor, sets the development priorities. The user is also able to set its own priorities for bug fixes.

2 No restriction on use: unlike commercial software, there are any contractual restrictions on how the software is used. While some developers use the GNU General Public License that assures users that they have the right to distribution and those to whom they distribute also have the right to modify and distribute, other developers merely declare that their software is in the public domain. A subsequent user may, therefore, decide to protect the enhancements that it makes by copyrighting them.

3 Low cost: There is no charge for the software; therefore, the capital outlay required by commercial software is avoided. The major costs are ongoing development and maintenance. If the number of users is large, and they share their efforts, each user's cost is reduced. However, if the number is small or a user does a lot of tailoring to fit unique local needs that are not shared by other users, the cost can escalate.

8. DISADVANTAGES OF NewGenLib

However I pointed out some disadvantage of this type of open source software. There are lack of coordination, inadequate training and technical support, lack of participation, lack of guarantees and remedies, scalability and speed etc. However, the developer of the NewGenLib open source is expected to solve these disadvantages. The of open source software may not offer the liability and speed of proprietary software because the easy-to-use and general-purpose programming languages used are not very scalable and are slower than other languages. But NewGenLib open source has overcome this problem. On the



other hand the Versus Solution Pvt. Ltd organizes workshop and training programmers for appropriate support.

9. TYPE OF LIBRARIES

NewGenLib can be used for any type of library. In fact it is used by all types of libraries. This is because NGL is targeted towards public libraries. The type of libraries in which NewGenLib can be used are:

- A University libraries
- B College/School libraries
- C Public libraries
- D Libraries in Research Institutes
- E Libraries in Offices/Corporate

10 . MIGRATING TO NewGenLib

- 1 Implement in your library to automate the various services.
- 2 You can get all your data (in any format i.e.-Excel, CDS/ISIS, Internal-LMS whatever) imported into NewGenLib database. And ready to use.
- 3 Get all the good features of NewGenLib database
- 4 Get all new updates, upgrades, versions, and bug fixes of NewGenLib free-of-cost for life-time. NewGenLib guarantees life-time open source releases.

11. CONCLUSION

OSS has much potential for libraries and information centers, and there are a number of projects, including Greenstone, Koha, NewGenlib and Dspace, etc. that demonstrate its viability in this context. It gives library staff an option to be actively involved in development projects, and this involvement can take many forms, such as reporting bugs, suggesting enhancements, and testing new versions. Organization adopting OSS will need to provide their staff with additional development and training to enable them to take on these new roles effectively, and will need to have a long-term commitment to the projects. Systems librarians and library managers should watch this trend for future developments.

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