



OPEN SOURCE SOFTWARE IN LIBRARIES

Mr. VIPIN KUMAR

Research Scholar Department Of Library Science OPJS University, Churu, Rajasthan (INDIA).

Dr. YOGESH KUMAR ATRI

Research Supervisor Department Of Library Science OPJS University, Churu, Rajasthan (INDIA).

ABSTRACT

Open source software is the software that allow to run, copy, study, distribute, change, share and improve for any purpose to the users. The software is mostly free of cost and the source code is completely open. Library professionals should be aware of the pros and cons of open source software. They should have basic knowledge about the selection, installation and maintenance of digital content. They should involve in their development. This Paper highlights major open source library software and the selection criteria of open source softwares.

KEYWORDS : Free and Open Source Software, Library technology, Software for Libraries, selection criteria, Information Technology

1. Introduction

In last eighties when the personal computers are in existence, it is necessary to make the computer affordable for the student and researchers in whole world and to fulfil this purpose do efforts to reduce the cost of information technology infrastructure. There are many things included in personal computer i.e. hardware, software, operating software etc. there are make more affordable on daily basis.

Universities and other research institutes were spending much more money on research. The results of these research becomes publishing in eminent journals and articles, once again universities and research institutes were purchasing these journals from the publishers and senders. In this process these publisher and sender were make so much money. Now US government starts open source system for the benefit of society.

2. Free and open source software

Free and Open Source Software provides the right to use, copy, distribute, examine, change and improve the software to the user. These rights are imposed in the licenses, which apply to free and open source software. Free and Open Source Software is a term founded by Richard Stallman, who is the programmer in MIT Artificial Intelligence Lab. According to him open source software provides the freedom one can get from using this software. This software could be used, modified, redistributed without any permission.

There are some features laid down by Richard Stallman who are creator of GPL (GNU-General Public License)

- 1) The freedom to run the program for any purpose
- 2) The freedom to study how the program works and modify it.
- 3) The freedom to redistribute copies.
- 4) The freedom to distribute the modified copies so as to help the entire community

Open sources software is computer software with its source code made available with a valid license in which the copyright holder provides the rights to study, change and distribute the software to any one and for any purpose.

Opponents have said that the term "Open Source" fasters on ambiguity of a different kind such that it confuses the mere availability of the source with the freedom to use, modify and redistribute it. Developers have used the alternative terms Freedom Source Software (FOSS), or Free/Libre/Open Source Software (FLOSS), consequently, to describe open source software which is also free software. The OSI would choose that people treat open

source as if it were a trademark, and use it only to describe software licensed under on OSI approved license.

People are confused in the term free software and open software and use them in place of each other. But both terms are separate. The difference between them by choosing one term over the other one lets others know about what one's goals are. According to Richard Stallman, "Open source is a development methodology; free software is a social measurement.

The definition of both open source software and free software are same. There are very few cases in which they are different from each other. Open source emphasis that the source code is accessible to all. But the free software is defined in terms of giving the user freedom.

2.1 Definitions

Proprietary: The software is not free of cost and the source code is restricted. It cannot be modifying, fix, add to, take away, or change the code in any form.

Open Source: The software is most likely free and the source code is completely open. It can be change, fix, modify, take away, add to and change the code any way you want.

2.2 License

Open source licenses allow software to be freely used modified and shared. OSI certified is a trademark licensed only to people who are distributing software licensed under a license listed on the Open Source Initiative's list. Both softwares are free from problematic licensing restriction. It may be used copied, studied, modified and redistributed without restriction. Free software is not the same as freeware, software available at zero price.

3. Advantages of Open Source Software

- **None or low licensing fees:** Open source software don't require licensing fees and no any maintenance fees.
- **license management:** Obtain the software once and install it as many times. There's no need to count, track, or monitor for license compliance.
- **Lower hardware costs:** Open source softwares are compatible and portable, and as a result require less hardware power to accomplish the same tasks. The result is it can get by with less expensive or older hardware.
- **Support:** Open source support is freely available and accessible through the online community via the Internet. Many technical companies are now supporting open source with free online and multiple levels of paid support.
- **Scaling potential:** Multiple options for load balancing, clustering,

and open source applications, i.e. database and email, give organizations the ability to scale up for new growth or to do more with less.

• **Unified management:** Specific open source technologies such as Common Information Model and Web Based Enterprise Management provide the capability to integrate or consolidate server, service, application, and workstation management for powerful administration.

• **Increased quality:** Evidence and research indicate that open source software is good quality. The peer review process and community standards, tend to drive excellence in design and efficiency in coding.

4. Open Source Software for Libraries

Koha: Integrated Library System

Koha is a full featured open sourced by libraries. Many smaller libraries who cannot afford to purchase, install, and maintain an ILS, Koha is a perfect alternate for them. Koha is using library ILS standards and the OPAC interface. It has no vendor-lock in, so libraries can receive tech support from any party they choose.

NewGenLib (New Generation Library)

NewGenLib is an Integrated Library Automation and Networking Solution outcome by Verus Solutions Pvt Ltd and The Kesavan Institute of Information and Knowledge Management, India. On January 2008, it has been declared Open Source Software under GNU GPL Licence by the Verus Solutions Pvt Ltd, Hyderabad, India.

Evergreen

Evergreen ILS is developed by Equinox Software. Evergreen is developed to be capable of reduced the workload of large libraries. Flexible administration, work-flow customization, adaptable programming interfaces offered by Evergreen. It too is standards compliant and uses the OPAC interface.

Greenstone

The Greenstone software is an open-source system developed for the construction and presentation of information collections. It is produced by the university of Waikato under the New Zealand Digital Library Project. This software is for building and distributing digital library collections. Its aim is to empower users, particularly in universities, libraries, and other public service institutions.

Dspace

Dspace is a non-profit, academic, and commercial digital institutional repository that manages and distributes digital items. It is combined effort of Massachusetts Institute of Technology (MIT) Libraries and Hewlett-Packard (HP). It is free and easy to install. It enables and preserves easy and open access to all type of digital documents including images, text, videos, data sets, moving images. It supports the long-term preservation of the digital material stored in the repository. It is also make submission easy. Dspace is to supports the submission, management, and access of digital content.

Eprints

EPrints is a software package for building open access repositories. It has been developed by the University of Southampton School of Electronics and Computer Science and released under a GPL license. For Metadata Harvesting these are compliant with the Open Archives Initiative Protocol. It is primarily used for scientific journals and institutional repositories.

BibApp

BibApp is a tool for academic libraries which is used to connect the researcher in the campus with experts in their specific field of research. It help them to promote their work. It is social network which related to research. BibApp helps to find out that what research is being done on campus.

LibKi

LibKi is a free open source kiosk management system developed for library. Its administration is based on web that make it easy usable from any operating system. It is distributed under the open-source General Public License (GPL). It allows to manage your public computers in the library with minimal set up.

OpenBiblio

OpenBiblio is an automated library system, easy to use and open source software which is written in PHP containing OPAC, circulation, cataloguing, and staff administration functionality. The main purpose of this project is to provide effective library automation solution for private collections, public library, schools, small and rural library.

5. Selection criteria of open source software

Evaluation of open source software is different from proprietary programs. Often proprietary programs always hide all information from users and only allow running the software. Following criteria's can be keep in mind for open source software selection:

Status/reputation

Awareness about the software's reputation in the market, libraries and society is very necessary. We can know about the status from the existing users of software E-mail and letters.

Open Source Software on the WWW

Certain open source software are highly popular among librarian's community, for example Greenstone digital library software is a favourite candidate for the libraries who make use it for the collection and organization of digital materials. Librarians can select the software without much effort, if more popular software's are available for various library purposes. There are some websites which provide detailed listing of open source software are:

- SourceForge (<http://sourceforge.net/>)
- UNESCO Free & Open Source Software Portal (www.unesco.org)
- Free Software Foundations software directory (www.fsf.org)

Open source licenses

Open source licenses giving assurances the users freedom to use, copy, improve and distribution of software. GPL is the most popular license for free and open source software and it provides feasible terms of use. A user can modify the software without the permission of its creator with the use of GPL licenses.

Stable releases

Stable release of open source software shows its developer's ability to fix and correct bugs along with new features. Version history of open source software is available from project websites or any other project repositories like Source Forge, Savannah and Free Software Foundations software directory. These services help the users to get the information about software origin, releasing history, version numbering scheme, developer's details etc.

User interface

Mostly open source library software are available with web interface. Software with web interface is easier to learn and use. Graphical templates of open source softwares are possible to customize and users can add new design. Through redesigning the templates and style sheets open source software can easily integrate with library/institutional websites. Separate administrative and user interface is essential for remote access and maintaining security.

Documentation

Open source software documentation is available through project websites, wikis, blogs and email lists. They give information of software installation in various operating systems, software architecture, database structure, history of bug fixes, changes in new release, road map (wish list) of future releases etc. Individual documentation for developers, administrator and user is another advantage of open source software documentation. Software

community incessantly updates the online documentation and it is better to make use the online wiki or email lists for error fixing and clearing doubts. (cite)

Standards

Common standards are used in software programs. If you want to migrate from one to another it can be done easily. You should not depend on open source software completely if it is not working properly.

6. Conclusion

In this paper study about the free and open sources software that could be used to create a much more resourceful library. By using open source software in the library, money that is spent on software solutions can be used for other important resources, such as purchasing books, journals, etc. This free software is constantly being updated, changed, and customized to meet the library's needs. Hopefully this article provides some introductory information about some open sources software which are used by patrons.

Reference

1. Altman, Micah (2001). Open Source Software for Libraries: from Greenstone to the Virtual Data Center and Beyond. IASSIST Quarterly, Winter 2001, 5-11. Retrieved January 17, 2008, from Web site: <http://iassistdata.org/publications/iq/iq25/iqvol254altman.pdf>
2. Corrado, Edward M. (2005). The Importance of Open Access, Open Source, and Open Standards for Libraries. Issues in Science & Technology Librarianship. 42. Retrieved February 3, 2008, from Web site: <http://www.istl.org/05-spring/article2.html>
3. Free Software, Free Society: Selected Essays of Richard M. Stallman
4. Free Software/Open Source: Information Society Opportunities for free softwares
5. Kumar, Vimal (2007). Selection and Management of Open Source Software in Libraries. In Kumar, Manoj K., Eds. Proceedings CALIBER 2007: 5th International Convention on Automation of Libraries in Education and Research Institutions, 1-5.
6. Open source software. Wikipedia. Retrieved February 5, 2008, from Web site: <http://en.wikipedia.org/http://www.opensource.org>
7. Stallman R. M. (2003) The GNU Manifesto. The Free Software Foundation, available at: <http://www.fsf.org/gnu/manifesto.html>. retrieved on 15.4/2011.
9. UNESCO Free & Open Source Software Portal. <http://www.unesco.org/>