Open Source Softwares: A Boon To Information Management In Libraries

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Abstract: The paper gives a brief history of open source softwares. A comparison has also been drawn between the commercial or proprietary software and the open source software.The benefits of using the open source software have also been highlighted. A brief idea about each open source software like Koha, NewGenLib, Evergreen, Greenstone, DSpace, Fedora and Eprints has been given in the paper.

Keywords: Open source software, Proprietary software, Koha, NewGenLib, Evergreen, Greenstone, DSpace, Fedora, Eprints

INTRODUCTION

The concept of 'library' has undergone a radical change. The libraries within the four walls are now almost a redundant concept. The librarians have garbed themselves as information managers instead of being mere custodians of books within four walls. They have to always provide with quality service, i.e., they have to minimize the gap between the users' expected service and the service perceived by the users. To manage information in this situation, one of the barriers is the escalating rates of printed journals and books and the subsequent reduction of subscription of these journals. One of the main solutions to this problem is to avail of the facilities offered by the open source softwares.

BRIEF HISTORY OF OPEN SOURCE SOFTWARES

The free open source movement was launched by Richard Stallman in 1983 as a reaction against the trend of developers who did not publish the modifiable 'source code' with the help of which the users can read, copy, modify, redistribute a software. In 1983, he published the 'GNU Manifesto' and launched the 'GNU Project' to write an operating system free from constraints on use of its source code. In 1985, the Free Software Foundation (FSF) started which used the word 'free' to mean 'freedom to redistribute' and not 'free of cost' In February 1986, a 'free software' definition was published. In 1989, the first version of the GNU General Public License was published. In 1991, the 'Linux kernel' started by Linus Torvalds was released as a free source code which could be modified. The combination of almost finished GNU operating system and the Linux kernel gave birth to the first free software operating system In 1998, a group advocated the use of the term 'open source software' instead of 'free software' which is less ambiguous. In 1990s and 2000s, the adoption of Linux gained momentum .In English –speaking world, 'Ubuntu' and its derivatives have become popular. In 2006, Microsoft launched its 'Code Plex', an open source code hosting site. On May 8, 2007, Sun Microsystems (Sun) released the Java Development Kit (JDK) under the GNU General Public License. In 2008, Sun Microsystems (Sun) acquired 'MySQL AB', owner of the popular open-source "MySQL' database. In January 2010, Oracle in turn purchased Sun acquiring their copyrights, patents and trademarks. In September 2008, Google released the first version of 'Android', a new smartphone operating system as open source. In August 2010, Oracle sued Google on the ground that is use of Java in Android has infringed on Oracle's copyrights and patents. In May 2012, Google vs. Oracle case ended finding that Google has not infringed on Oracle's patents.

COMPARISON BETWEEN COMMERCIAL/PROPRIETARY AND OPEN SOURCE SOFTWARE

Commercial/Proprietary Software	Open Source Software
❖ Only the binary code is available against fees. ❖ Since the source code is not available, the customization is not possible. ❖ The license agreement allows the use of the software for a limited period and it is mandatory.	❖ Both the source code and the binary code are available free of cost. ❖ Since the source code is available the customization is possible. ❖ The license agreement allows the use, change, modification and the redistribution of the software for indefinite period and it is mandatory.

BENEFITS OF USING OPEN SOURCE SOFTWARES

Reliability: The term means absence of defects which cause incorrect operation, data loss or sudden failures. The defects can be fixed within hours of their detection because of the availability of the source code.

Lower Costs: These softwares cost much lower than the proprietary softwares. There are no license costs associated with open source softwares. Libraries can take advantage of this lower cost.

Absence of Lock-in: Libraries can take advantage of what is better operational with open source solutions. If a software vendor goes out of business, the proprietary software may stop existing or be sold on. Open source softwares are always available since there's always a community involved in its development.

Greater Adaptation and Innovation: Libraries have to innovate if they adopt open source softwares. There is no need to wait for the next update or release.Instead, libraries can develop the required functionality either in isolation or in collaborative manner. In this way they can fulfill and even exceed the user expectations.

VARIOUS OPEN SOURCE SOFTWARES

For Library Automation

Koha

- ❖ It is an open source Integrated Library System. The name was coined from a Maori term which means a gift or donation. It was created by Katipo Communications in New Zealand.
- ❖ Initially released in January 2000.
- ❖ The latest release was 19.05.00 on May 30,2019.
- ❖ Works in Linux operating system.
- ❖ It is written in Perl.
- ❖ It is licensed under GNU General Public License.
- ❖ Its modules are: Acquisition , Cataloguing, Circulation, Serials Management, Authorities, Flexible reporting, Label printing , Multi format notices, Offline circulation when Internet access is not available, OPAC.
- ❖ The official website is **koha.community.org**

NewGenLib

- ❖ It is an Integrated Library Management System developed by Verus Solutions Pvt. Ltd in Hyderabad.
- ❖ The NewGenLib version 1.0 was released in March 2005.
- ❖ The latest version was 3.1.2 on May 15, 2015.
- ❖ It works both in Windows and Linux operating systems.
- ❖ It is written in Java.
- ❖ It is licensed under GNU General Public License.
- ❖ Its modules are: Acquisition, Technical Processing (Cataloguing) and Circulation.

Evergreen

- ❖ It was initiated by Georgia Public Library Service for Information Network for Electronic Services (PINES) and Evergreen Community.
- ❖ Its initial release was in September 2006.
- ❖ Its stable release was 3.3.1 on May17, 2019.
- ❖ It works in the Linux operating system.
- ❖ It is licensed under GNU General Public License.
- ❖ Its website is **evergreen.ils.org**
- ❖ In 2007, the original Evergreen Community formed a commercial company known as Equinox Software to provide custom support, development, training and consultation for Evergreen.

For Digital Libraries

Greenstone

- ❖ It is a software used for building and distributing digital library collections on the Internet or CD ROM.
- ❖ It is open-source, multilingual software, licensed under the terms of the GNU General Public License.
- ❖ It is produced by the New Zealand Digital Library Project at the University of Waikato and has been developed and distributed in cooperation with UNESCO and

the Human Info NGO in Belgium.

- ❖ Its stable release was 2.86 in Greenstone 2 and 3.08 in Greenstone 3.
- ❖ Its website is **www.greenstone.org**
- ❖ In 2010, Greenstone version 2.83 was included along with Koha Integrated System.

DSpace

- ❖ An open source repository software used for creating open access repositories of scholarly and published digital content focused on the long term storage , access and preservation.
- ❖ Its original authors were developers from MIT and HP Labs.
- ❖ Its initial release was in November 2002.
- ❖ Its stable release was 6.3 on June 27, 2018.
- ❖ It is written in Java.
- ❖ Its website is **dspace.org**
- ❖ Currently DSpace software and user community receives leadership and guidance from DuraSpace, a non-profit organization, formed as a joining of the two organizations, DSpace Foundation and the Fedora Commons.

Fedora

- ❖ Fedora or Fedora Linux was distributed by the community-supported Fedora Project and sponsored primarily by Red Hat.
- ❖ **Fedora**
- ❖ Its initial release was on November 6,2003.
- ❖ Its stable release was on October 30,2018.
- ❖ Its official website is **getfedora.org**
- ❖ Since the release of Fedora 21, three different editions are currently available : Workstation for personal computers, Server for servers and Atomic focused on cloud computing.

Eprints

- ❖ It is a free open-source software package primarily used for institutional repositories and scientific journals.
- ❖ It has been developed by University of Southampton School of Electronics and Computer Science and released under a GPL license.
- ❖ It is written in Perl.
- ❖ It was created in 2000.
- ❖ Its stable release is 3.4.1 released on April 5,2019.
- ❖ Eprints became the first and one of the most widely used free open access institutional repository softwares and inspired the development of the others.

CONCLUSION

It can be thus concluded that open source softwares have been a boon for the purpose of managing information The fund otherwise needed for maintaining the proprietary software can now be utilized in procuring additional resources like books and journals. The fund saved can also be used for hiring expertise who would be the patrons in advising regarding as how to better utilize the already existing resources in the libraries. But still, there would be many more hurdles that will have to be overcome gradually.

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