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Multidisciplinary International E-research Journal

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INDIAN YOUTH : CHALLENGES AND OPPORTUNITIES

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Open Source Software's for Library

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Abstract:

As we know "Library is growing organisms", in the sense of fifth Law of Library science by Dr. S. R. Ranganathan all things those come in knowledge era that's in under Library. Like online book surfing, audio books, CD's, DVD's, various types of library software's etc is in under Library science and match with fifth law of library science. Open source software is, software that users have the ability to run, copy, distribute, study, change, share and improve for any purpose. Open source library software's does not need the initial cost of commercial software and enables libraries to have greater control over their working environment. Library professionals should be aware of the advantages of open source software and should involve in their development. They should have basic knowledge about the selection, installation and maintenance. Open source software requires a greater degree of computing responsibility than commercial software. Library professionals do not think seriously about the advantages of open source software for automation and hence are reluctant to use it. They do not have the expertise to support open source software. Paper highlights major open source library software.

General Terms : Open source Digital Library Management Software, Information Dissemination.

Keywords : Open source, Digital Library, Digital Library Management Software, Information Dissemination.

Introduction :

In the present era digitalized databases are being compiled in majority of the library services, which are based on information technology as well as resources available in electronic formats. In order to manage all kinds of resources and information, libraries require high quality integrated software, along with cutting edge retrieval tools. However, the high price of such software prevents most of the libraries from using them. So as to deal with this issue, and for the benefit of research scholars and the user communities of libraries, different NGOs, organizations and individuals have developed software, which are distributed free of cost. Known as free/open source software, these are extensively available on the internet and can be downloaded, installed and distributed.

What is Open Source Software?

Open source software is software that provides access to the source code, meaning that users are free to see how the product is made. Additionally, users have the right to modify the product (change the code) to their liking, experiment with different versions, and give away or resell the new product with the guarantee that they must also provide their source code, and so on. Modifying the product and redistribution are the two main components of open source software.

Ideology :

If you value fair use of information and intellectual freedom, open source software is right for you and your library. But remember; think of "free" as in freedom, not necessarily "free" as in price, although it often is. The free software movement differs slightly from open source software ideology in that free software promotes the freedom of all software everywhere and abhors proprietary software. Open source software proponents believe that this is not completely realistic and prefer promoting collaboration methods as superior to proprietary software. If a piece of software is called "free software," then it is also open source software. Live free, code free, improve the world.

Reasons to Use Open Source Software :

It promotes creative development those who can't afford proprietary software can Download open source programs for free Money saved can be used to purchase other needed materials Can easily modify your software to suit patron's needs and your needs Little to no upgrade costs No more grueling over software that doesn't meet your standards -- create it yourself based off of a close preexisting piece of software The price (free) makes it easier to change your mind when the software doesn't live up to its expectations Little to no viruses!

Definitions :

Proprietary :

The software costs money and the source code is restricted. You cannot modify, 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. You can modify, fix, add to, take away, and change the code any way you wish.

Selected open source software's :

Major software's developed and available are described briefly hear;

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 license. 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 electronic resources.

Features :

Koha is web-based ILS, with a SQL database (MySql preferred) backend with cataloguing data stored in MARC and accessible via Z39.50. The user interface is very configurable and adaptable and has been translated into many languages. Koha has most of the features that one expects in an ILS, including:

Simple, clear interface for librarians and members (patrons)

Various Web 2.0 facilities like tagging and RSS feeds

Union catalog facility

Customizable search

Circulation and borrower management

Full acquisitions system including budgets and pricing information (including supplier and currency conversion)

Simple acquisitions system for the smaller library

Ability to cope with any number of branches, patrons, patron categories, item categories, items, currencies and other data

Serials system for magazines or newspapers

Reading lists for members

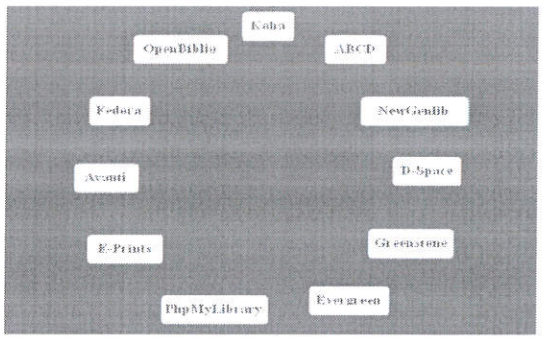

Figure no.1.Some of open source software's.

D-Space :

D-Space is an open source software package that provides the tools for management of digital assets, and is commonly used as the basis for an institutional repository. It supports a wide variety of data, including books, theses, and 3D digital scans of objects, photographs, film, video, research data sets and other forms of content. The data is arranged as community collections of items, which bundle bit streams together. D-Space is also intended as a platform for digital preservation activities. D-Space was released by HP-MIT Alliance in 2002 and since its release is very popular open source software. It has been installed and successfully working extensively and widely in universities, higher education colleges, cultural organizations, and research centers etc. It is shared under a Berkeley Software Distribution license, which enables users to customize or extend the software as needed.

Evergreen :

Evergreen is an open source Integrated Library System (ILS), initially developed by the Georgia Public Library Service (2006), Public Information Network for Electronic Services (PINES) and the Evergreen Community. It is distributed under the GNU General Public License. Evergreen has been written primarily in Perl and Postgre SQL, with a few optimized sections (Singh, 2007) rewritten in C. The catalog interface is primarily JavaScript with XHTML, and the staff client user interface is written in Mozilla's XUL (XML + JavaScript). The user interface for most new staff client functionality is being built with the Dojo Toolkit JavaScript framework. Python is used for the internationalization built infrastructure. EDI functionality for the acquisitions system depends upon Ruby support.

Php My Library :

Php My Library is a PHP/My SQL web-based library automation application meant for smaller libraries. The software has the facilities of cataloguing, circulation, and OPAC module. The software also has an import export feature. It strictly follows the USMARC standard for adding materials. This software is compatible with the content management system and has as facility of online reservation system for library and also supports import from ISIS database with an ISIS2MARC program.

Fedora :

Fedora software gives organizations a flexible service oriented architecture for managing and delivering their digital content. Digital objects exist within a repository architecture that supports a variety of management functions. All functions of Fedora, both at the object and repository level, are exposed as web services. These functions can be protected with fine-grained access control policies. This unique combination of features makes Fedora an attractive solution in a variety of domains. Some examples of applications that are built upon Fedora include library collections management, multimedia authoring systems, archival repositories, institutional repositories, and digital libraries for education.

E-Prints :

E-Prints has been developed at the University of Southampton School of Electronics and Computer Science in 2000 and released under a GPL license for building open access repositories that are compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). It shares many of the features commonly seen in document management systems, but is primarily used for institutional repositories and scientific journals.

OpenBiblio :

OpenBiblio is an easy to use, open source, automated library software written in PHP. This software has facilities of OPAC, circulation, cataloging, and other administrative work. OpenBiblio is well documented, easy to install with minimal expertise and designed with common library feature.

Avanti :

Avanti Micro LCS Software is developed by Avanti Library Systems in Java language. This is a small, simple, and easy to install and use open source software. It is a platform independent, and can run on any system that supports a Java runtime environment. This software is useful for small libraries; it has a powerful and very flexible architecture that allows it to be adapted for use in libraries of any type. This software incorporates standards such as MARC and Z39.50 as modules and interfaces.

Greenstone :

The Greenstone Digital Library Software (GSDL) is a top of the line and internationally renowned 'Open Source Software' system for developing digital libraries, promoted by the New Zealand Digital Library project research group at the University of Waikato and is sponsored by the UNESCO (http://www.unesco.org). The software is issued under the terms of GNU General Public License. Greenstone provides a way of building, maintaining and distributing digital library collections, opening up new possibilities for organizing information and making it available over the Internet or on CD-ROM.

JOOMLA :

JOOMLA is a free and open-source content management system (CMS) for publishing web content. It is built on a model–view–controller web application framework that can be used independently of the CMS. JOOMLA is written in PHP, uses object-oriented programming (OOP) techniques (since version 1.5) and software design patterns, stores data in a MySQL, MS SQL (since version 2.5), or Postgre SQL (since version 3.0) database, and includes features such as page caching, RSS feeds, printable versions of pages, news flashes, blogs, search, and support for language internationalization.

As of February 2014, JOOMLA has been downloaded over 50 million times. Over 7,700 free and commercial extensions are available from the official JOOMLA! Extension Directory and more are available from other sources. It is estimated to be the second most used content management system on the Internet, after Word Press.

Advantages of open source software's :

The advantages of digital libraries as a means of easily and rapidly accessing books, archives and images of various types are now widely recognized by commercial interests and public bodies alike.

Traditional libraries are limited by storage space; digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain it.[12] As such, the cost of maintaining a digital library can be much lower than that of a traditional library. A physical library must spend large sums of money paying for staff, book maintenance, rent, and additional books.

Digital libraries may reduce or, in some instances, do away with these fees. Both types of library require cataloging input to allow users to locate and retrieve material. Digital libraries may be more willing to adopt innovations in technology providing users with improvements in electronic and audio book technology as well as presenting new forms of communication such as wikis and blogs; conventional libraries may consider that providing online access to their OP AC catalog is sufficient. An important advantage to digital conversion is increased accessibility to users. They also increase availability to individuals who may not be traditional patrons of a library, due to geographic location or organizational affiliation.

- **No physical boundary** : The user of a digital library need not to go to the library physically; people from all over the world can gain access to the same information, as long as an Internet connection is available.
- **Round the clock availability** : A major advantage of digital libraries is that people can gain access 24/7 to the information.
- **Multiple access** : The same resources can be used simultaneously by a number of institutions and patrons. This may not be the case for copyrighted material: a library may have a license for "lending out" only one copy at a time; this is achieved with a system of digital rights management where a resource can become inaccessible after expiration of the lending period or after the lender chooses to make it inaccessible (equivalent to returning the resource).
- **Information retrieval** : The user is able to use any search term (word, phrase, title, name, and subject) to search the entire collection. Digital libraries can provide very user-friendly interfaces, giving click able access to its resources.
- **Preservation and conservation** : Digitization is not a long-term preservation solution for physical collections, but does succeed in providing access copies for materials that would otherwise fall to degradation from repeated use. Digitized collections and born-digital objects pose many preservation and conservation concerns that analog materials do not. Please see the following "Problems" section of this page for examples.
- **Space** : Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information; simply because digital information requires very little physical space to contain them and media storage technologies are more affordable than ever before.
- **Added value** : Certain characteristics of objects, primarily the quality of images, may be improved. Digitization can enhance legibility and remove visible flaws such as stains and discoloration.
- **Easily accessible**

Limitations of Open Source Software :

For any up gradation/change in the OSS, the library needs support. In case of OSS, there is nobody to solve problem, either one has to hire some expert to solve the 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. Generally, a commercial software company will immediately respond on customer requests for any problem. With OSS, if one doesn't do it himself, he/she is at the mercy of a disjoint community of developers.

Conclusion :

The Library & Information Science (LIS) professionals should keep eyes on development in order to choose appropriate technology depending upon Institution's needs. Since, numbers of libraries worldwide are using OSS for managing their library systems more economically and effectively. Librarians and programmers should worked together in order to implement open source integrated library systems and at the same time, library professional are also required to acquire new skills for developing and managing the library by using open source LMS. For taking benefit from OSS additional technology, education, and training of the professionals is essentially required.

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