RESEARCH ARTICLE

IMPACT OF THE FREE SOFTWARE ON DEVELOPMENT OF INSTITUTIONAL REPOSITORIES AT HIGHER EDUCATION

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ABSTRACT

The richness of Software is based on retrieving key knowledge and relevant information. This can possible who can change the software to tailor it more closely to their information requirements. Factors associated with the successful adoption of free software and open software applications for libraries, match with an organization's culture, technical infrastructure, staff skills, software functionality, and the extent of community support available. Institutional Repositories (IRs) are one of the most powerful tool to empower and strengthen open access movement. . The technology is free, the software is also available free of cost. At present the need is universities are having the necessary willingness to implementing IRs at their premises. It's high time that universities have take a decision and a strong commitment to develop IRs and convince the faculty members and research scholars to deposit papers in the Institutional Repositories

INTRODUCTION

The free and open source software development model gives organizations a new option for acquiring and implementing systems. This means in practice for libraries and information centers, which have specialized requirements and make extensive use of technology to provide services to their users. If asked, most computer-literate people would say that open source software includes the original code for the program, whatever language it is written in and that it also may be modified for local use and then subsequently redistributed for "free". However, the official definitions of "free software" and "open source software" cover other aspects of software use and distribution that are important in understanding how this type of software differs from commercial or proprietary software.

Concept of Free Software

"Free software" means software that respects users' freedom and community. Roughly, the users have the freedom to run, copy, distribute, study, change and improve the software. With these freedoms, the users (both individually and collectively) control the program and what it does for them. The Free Software Foundation (FSF) maintains a formal definition of free software It identifies four aspects of freedom, from the software users' perspective: The freedom to run the program, for any purpose (freedom 0), the freedom to study how the program works, and adapt it to local needs (freedom 1), the freedom to redistribute copies so others can benefit from the software (freedom 2), the freedom to improve the program and release the improved version to the public, so that the community can benefit (freedom 3).

A program is free software if users have all of these freedoms. Thus it should be free to redistribute copies, either with or without modifications, either gratis or charging a fee for distribution, to anyone anywhere. Being free to do these things means that you do not have to ask or pay for permission to do so. It should also have the freedom to make modifications and use them privately in your own work or play, without even mentioning that they exist. If you do publish your changes, you should not be required to notify anyone in particular, or in any particular way. The freedom to run the program means the freedom for any kind of person or organization to use it on any kind of computer system, for any kind of overall job and purpose, without being required to communicate about it with the developer or any other specific entity. In this freedom, it is the user's purpose that matters, not the developer's purpose; you as a user are free to run the program for your purposes, and if you distribute it to someone else, she is then free to run it for her purposes, but you are not entitled to impose your purposes on her.

The freedom to redistribute copies must include binary or executable forms of the program, as well as source code, for both modified and unmodified versions. (Distributing programs in runnable form is necessary for conveniently installable free operating systems.) It is OK if there is no way to produce a binary or executable form for a certain program (since some languages don't support that feature), but you must have the freedom to redistribute such forms should you find or develop a way to make them.

"Free software" does not mean "non-commercial". A free program must be available for commercial use, commercial development, and commercial distribution. Commercial development of free software is no longer unusual; such free commercial software is very important. We may have paid money to get copies of free software, or we may have obtained copies at no charge. But regardless of how we got your copies, we always have the freedom to copy and change the software, even to copies. Whether a change constitutes an improvement

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is a subjective matter. If your right to modify a program is limited, in substance, to changes that someone else considers an improvement, that program is not free.

Most free software licenses are based on copyright, and there are limits on what kinds of requirements can be imposed through copyright. If a copyright-based license respects freedom in the ways described above, it is unlikely to have some other sort of problem that we never anticipated (though this does happen occasionally). However, some free software licenses are based on contracts, and contracts can impose a much larger range of possible restrictions. That means there are many possible ways such a license could be unacceptably restrictive and no free. When talking about free software, it is best to avoid using terms like "give away" or "for free," because those terms imply that the issue is about price, not freedom.

Open source concepts

In 1998, some of the people in the free software community began using the term "open source software" instead of "free to describe what they do. The term "open source" quickly became associated with a different approach, a different philosophy, different values, and even a different criterion for which licenses are acceptable. The Free Software movement and the Open Source movement are today separate movements with different views and goals, although we can and do work together on some practical projects.

The Open Source Initiative (OSI) maintains the Open Source Definition (OSD), version 1.9 at 12 September 2003, which has 8 clauses:

1. The source code for the program must be available, and, if not included in a distribution, must be easily available Software must be able to be freely distributed, without requiring a royalty or fee for sale. (for example, downloadable from a web page) in a form which allows a programmer to modify the program.
2. Modifications and derived works must be allowed, and these must be able to be redistributed under the same terms as the original software.
3. The integrity of the original source code must be able to be maintained, either by requiring modifications to be distributed as "patch files", or by requiring modified versions to have a different name or version number.
4. There must be no discrimination against persons or groups.
5. There must be no discrimination against any field of endeavor.
6. The license must apply to anyone receiving a copy of the program, without
7. The license must not be specific to a particular product or distribution.
8. The license must not apply to other software distributed along with the licensed program(s) (Open Source Initiative 2003). Requiring them to agree to another license.

Free software vs open source software

The Free Software movement and the Open Source Software movement are like two political camps within the free software community. Radical groups in the 1960s developed a reputation for factionalism: organizations split because of disagreements on details of strategy. The relationship between the Free Software movement and the Open Source Software movement is just the opposite of that picture. We disagree on the basic principles but agree more or less on the practical recommendations. This is not against the Open Source movement but it don't want to be lumped in with them. This is acknowledgement that they have contributed to community but people should know this.

The benefits of Free and open software for libraries

The low start-up cost is associated with using Free and open software. The Free and open software also has reduced vulnerability to viruses and it is also technology neutral, meaning that applications will run on more than one platform (such as Windows, Linux, Unix, and MacOS X). This is true when they are written in languages such as Perl and PHP that are available for a number of platforms. Mutula and Kalaote, (2010) commented that the Open source software deployment in government across the world is gaining momentum purportedly to enhance universal access, reduce costs associated with commercial software bridge the digital divide, grow indigenous IT skills, etc.

There are also technical advantages: the Free and open software removes the requirement to constantly upgrade hardware in order to be able to run newer, more sophisticated software being promoted by commercial organizations, as there is no requirement to upgrade to new software versions. Casaló etc., (2009) the innovation and development has to face up the existence of free-riders which can benefit from the knowledge developed in the online social network. Krishnamurthy, (2008) viewed Open source software and open access to research findings are of great use to scholars in developing nations. Allen and Geller (2012) looked Open source adoption is perceived as an occasion for rapidly developing effective new business applications, even in the context of shrinking IT resources and a poor relationship between IT and the rest of the organization. IT management and staff see the potential to improve their strained relationship with users, and improve their image of themselves as product developers and explorers. Disruptive project strategies, that keep open source adoptions outside of normal resource allocation processes, are consistently associated with open source success.

Issues relating to the use of Free and open software

The main issues raised in the literature relate to the level of support available and the degree of technical knowledge required installing and using Free and open software. With no vendor responsible for the software, support for Free and open software applications can vary, and often depends on the user/developer community's commitment to the project. Freeman (2012) critically examines the often taken-for-granted ideals of open source software and elaborates a methodological tool for spotting power struggles on the level of speech Rossi etc., (2012) investigate the importance of factors for the adoption of free/libre open source software (FLOSS) in the public sector. They seek to evaluate how different factors impact during the initiation and implementation phases of the adoption process. Müller, (2011) examined the methodology meets the best practices in technology selection, with a multiple criteria decision analysis. It can also be easily adapted to the needs of all libraries

Current status of Free software in institutional Repositories

Currently available Free library-related applications include not only integrated library management systems (for example Avanti, Koha, and Php My Library), but also a range of innovative functionality, such as:

MOSST—Modular Online Software for Self-paced Tutorials, to create web-based tutorials
OSCR—Open Source Course Reserve, to manage electronic course reserve material, either PDF or URLs
RAKIM—a web-based real-time virtual reference environment

DSpace - Dspace is an Open Archive Initiative (OAI) - compliant open-source software released by MIT for archiving eprints and other kinds of academic content. The DSpace digital repository system captures, stores, indexes, preserves, and distributes digital research material.

Greenstone - Greenstone is a suite of software for building and distributing digital library collections. It provides a new way of organizing information and publishing it on the Internet or on CD-ROM. Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and developed and distributed in cooperation with UNESCO and the Human Info NGO. It is open-source, multilingual software, issued under the terms of the GNU General Public License.

FEDORA - Fedora is a general purpose repository system developed jointly by Cornell University Information Science and the University of Virginia Library. It is open source software gives organizations a flexible service-oriented architecture for managing and delivering their digital content.

CONCLUSION

The growth of open-access repositories at universities across the world represents a fundamental shift in the landscape of knowledge creation. The evolution of digital publishing technologies, networks, and data storage systems has placed the power for global dissemination of information within the hands of information producers themselves. No longer willing to serve as passive sponsors and consumers of knowledge, universities have embraced this revolution, using repository technology to meet their obligation to share the knowledge produced within their walls and preserve it for future generations.

When implemented properly, and with the cooperation of the entire campus, repositories have the ability to satisfy an extraordinary range of information needs.

Repositories provide faculty with greater control, exposure, and security for all the varied intellectual creations they produce, as well a platform for collaboration and data sharing. They offer universities the ability to showcase the work of their constituents and demonstrate its value to the community, and a vehicle for managing and preserving it over the long term. And they provide libraries with a means to realize their full potential as partners within the scholarly communication process, curators of the knowledge produced by their patrons, and advocates for the democratization of information access. Institutional Repositories can benefit both the universities and its scholars by raising the institutional profile while also bringing about broader dissemination, increased use, and enhanced professional visibility of scholarly research. IR facilitates nurturing of innovations of the university academics, which is the core mission of any university. Indian universities should be proactive in harnessing such a powerful tool with a promise to change the traditional setup surrounding the universities and libraries.

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