Vol II Issue VII Jan 2013

Impact Factor : 0.1870

ISSN No :2231-5063

Monthly Multidisciplinary Research Journal

Golden Research Thoughts

IMPACT FACTOR : 0.2105

Welcome to ISRJ

RNI MAHMUL/2011/38595 **ISSN No.2230-7850**

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

International Advisory Board

Editorial Board

Address:-Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.isrj.net

Golden Research Thoughts
Volume 2, Issue. 7, Jan. 2013
ISSN:-2231-5063
Available online at www.aygrt.net

ORIGINAL ARTICLE

OPEN SOURCE MOVEMENT INITIATIVES: IMPACT ON SCHOLARLY COMMUNICATION

MAMATA. MESTRI

Assistant Librarian,
Gulbarga University, GULBARGA: Karnataka

Abstract:

The present paper discussed briefly the open source movement. Further, the outcomes of open source movement are e-prints, institutional repositories (digital repositories) and Open Source Software. Now the scholarly communication is made easy through these initiatives, as much information is freely available to the research scholars. Further, it also become helpful for the libraries, as there is no need to subscribe more journals and saves budget of the library.

KEYWORDS:

Open Source Movement, Open Source Software, Open Journals, e-prints, institutional repositories, digital repositories.

INTRODUCTION

The communication of information began with the beginning of civilization. The records reveal that the people recorded their experiences in inscriptions and later manuscripts (papyrus) during ancient times. They were regarded as information sources for providing the information about ancient times. Later Gutenberg invented the Printing Press and it revolutionized publishing in printed book form.

The twenty first century is the digital era and the storage and communication of information in various digital formats was started. As such the Information and Communication Technology today, playing a very important role in Collection, Storage, sharing and communicating of the information through digital forms. Now the web is providing much of the free resources for the information needs of the research communities. The Open Source movement is a revolutionary change since the last 2-3 years, which is providing open access e-books and journals, information, open source software, open archives searching etc.

A number of developments in the last two decades have threatened to defeat the very purpose for which the scientific community invented the scholarly communication system. A substantial proportion of the scholarly periodicals being published today (including those which are published on behalf of societies and professional bodies) are controlled by a limited number of large commercial publishing houses; a few conglomerations control the publishing industry. The publishing industry has witnessed some major mergers, take-over, etc since the 1990s. A direct consequence of all this has been a sharp increase in the cost of subscription to journals in the last two decades; this combined with the growth in the number of periodicals, the falling purchase power of currencies of developing countries have resulted in a crisis in which academic and research institutions can no longer afford access to the full range of required periodicals. Institutions have been forced to cancel subscriptions, divert book budgets for purchase of periodicals, etc1.

Due to such situation, there was started the open source initiatives, which provide many open source information, software, journals, e-books etc freely subject to certain conditions.

Title :OPEN SOURCE MOVEMENT INITIATIVES:IMPACT ON SCHOLARLY COMMUNICATION
Source:Golden Research Thoughts [2231-5063] MAMATA. MESTRI yr:2013 vol:2 iss:7.

OPEN SOURCE MOVEMENT:

The concept of Open source began with the "Open Source Software" or "free software" which was founded in 1998 by John "maddog" Hall, Larry Augustin, Eric S. Raymond, Bruce Perens, and others2.

In basic terms, the goal of the open access movement is to make scholarly articles freely available in digital form worldwide with minimal restrictions on their use (e.g. proper attribution of authorship). In reality, it is more complex than this because of differences of opinion about what open access should or should not try to achieve. Some advocates say that free access to scholarly articles is enough;minimal restrictions are not needed. Others say that the basic goal is correct, but permanent archiving is also required. Still others say why stop at scholarly articles, make all types of scholarly literature freely available in digital form. Such doctrinal differences are normal and healthy in such an important and dynamic movement3.

As outlined in the "Budapest Open Access Initiative"4, there are two basic strategies used to achieve open access:

(1) Self-archiving (making electronic preprints and postprints available on author home pages or depositing them in digital archives and repositories); and
(2) Open access journals.

Among the Open source available, open source software become popular in providing and using free software. For conducting research activities there is need for the latest information, which is published in journals, research papers, conference proceedings, research reports, and theses. Many of the institutions and organizations were already providing these documents freely to the research scholars. This has improved and developed the communication of information throughout the world. In providing open access, the information sources may be classified as under:

1. Open Access Journals and E-prints
2. Institutional/ Digital Repositories
3. Open Source Software

1. Open Access Journals and E-prints:

According to Warner5, the E-prints include:
Journal articles;
Pre-prints;
Technical reports;
Books;
Theses; and
Dissertations.

Open access journals as journals that use a funding model that does not charge readers or their institutions for access. From the BOAI, Budapest Open Access Initiative, definition of "open access" we take the right of "users to read, download, copy, distribute, print, search, or link to the full texts of these articles" as mandatory for a journal to be included in the directory. The journal should offer open access to their content without delay. Free user registration online is accepted. In the case of OA journals a publication process similar to that of the print world is evident, with formal procedures such as peer review being undertaken. The published output is produced far more quickly than the case with print and lower production costs. These costs (also known as APCs or Article Processing Charges) are often charged directly to the author. It may become standard in the future to build such publishing costs into research bids or establish an institutional fund to absorb them and it is envisaged that the cost to the institution of supporting individuals' OA publishing strategies will be considerably lower than those funds currently being committed to print and electronic subscriptions6.

The process of scholarly communication currently undergoing a revolution comparable with the one occasioned by the invention of printing. Because, the information communication is faster through web techniques such as e-mail. The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) had its initial focus the sharing of metadata describing e-prints repository holdings. It was formally introduced to the public in January 2001. The journal articles in this format become popular, as it is having flexibility and utility for sharing the digital metadata.

The Open Access Journals and e-prints have already been widely popular and beneficial for the Research Scholars, Readers, Libraries and different organizations in providing free information. The importance of e-prints and open access journals varies widely over different subject areas. These are most popular and mostly used by the Scientific and technical subject experts.

2. INSTITUTIONAL REPOSITORIES/DIGITAL REPOSITORIES:

The increasing open access movement is opening alternative channels for the dissemination of scholarly work and feeding the growth of institutional repositories (IRs). Many academics still prefer to publish their research in books and journals, they are disseminating their unpublished work more frequently through open-access, digital outlets. This work, often called “grey literature”, includes conference presentations, technical reports, and preprints as well as datasets, supplements to published work, and electronic theses and dissertations. 'Institutional repositories are digital collections which capture and preserve the intellectual output of a single or multi-university community, with the aim of increasing competition and collectively reducing the monopoly power of journals, thus bringing economic relief and heightened relevance to the institutions and libraries that support them'7.

An institutional repository (IR) is defined to be a web-based database (repository) of scholarly material which is institutionally defined (as opposed to a subject-based repository); cumulative and perpetual (a collection of record); open and interoperable (e.g. using OAI-compliant software); and thus collects, stores and disseminates (is part of the process of scholarly communication). In addition, most would include long-term preservation of digital materials as a key function of Irs8.

The above definition discusses the potential of Institutional Repositories to change the scholarly communication system:

Institutional repositories – used to mean digital collections capturing and preserving the intellectual output of a single or multi-university community – provide a compelling response to two strategic issues facing academic institutions. Such repositories:

Provide a critical component in reforming the system of scholarly communication – a component that expands access to research, reasserts control over scholarship by the academy, increases competition and reduces the monopoly power of journals, and brings economic relief and heightened relevance to the institutions and libraries that support them; and
Have the potential to serve as tangible indicators of a university's quality and to demonstrate the scientific, societal, and economic relevance of its research activities, thus increasing the institution's visibility, status, and public value.

Chang9 stated that “an effective institutional repository of necessity represents collaboration among librarians, information technologies, archives and records managers, faculty and university administrators and policy makers.

The benefits of institutional repositories as stated by Westell10 to institutions and individuals are numerous. Most importantly, they ensure the long-term preservation of an institution's academic output. They can also increase its visibility and prestige, and act as an advertisement to attract funding sources, potential new faculty and students. For the individual, they provide a central archive of a researcher's work, they increase its dissemination and so, potentially, its impact on the research community, and they can act as a full CV as all the researcher's output is gathered in one place.

Many institutions have set up IRs to meet a variety of institutional needs, including:

a showcase for the scholarly output of faculty;
· a relatively inexpensive means for disseminating faculty research results; and
· a possible tool to leverage journal prices downward11.

3. OPEN SOURCE SOFTWARE:

Open Source is a model for software distribution which provide the executable version of a program and the source code-text files that the programming language statements to perform various operations within the program. 'Open source describes practices in production and development that

promote access to the end product's sources. Before open source became widely adopted, developers and producers used a variety of phrases to describe the concept; the term open source gained popularity with the rise of the Internet and its enabling of diverse production models, communication paths and interactive communities. Subsequently, open source software became the most prominent face of open source12.

The term 'open source software' has captivated the popular vocabulary of computer enthusiasts since 1998 when the Open Source Initiative drafted the term in favor of its prior incarnation as “free software” under the Free Software Foundation. Since then, the open source initiative has become a certification group to determine which software licenses qualify as “open source software” under a commonly agreed upon definition. Despite these measures, most computer users remain unaware of the existence of open source software much less what the term means13.

The GNU web site offers the following definition of OSS14:

The freedom to run the program, for any purpose (freedom 0).
The freedom to study how the program works, and adapt it to your needs (freedom 1). Access to the source code is a precondition for this.
The freedom to redistribute copies so you can help your neighbor (freedom 2).
The freedom to improve the program, and release your improvements to the public, so that the whole community benefits (freedom 3). Access to the source code is a precondition for this (www.gnu.org/philosophy/free-sw.html).

Open Source Software groups are usually organized into a network of individuals working collaboratively on the Internet. Some develop a major software project that sometimes rives commercial software, but are committed to the production of quality, free alternatives to those produced by commercial companies. Groups and individuals develop software to meet their own and others' needs in a highly decentralized way, which has been likened to a bazaar. These groups often make substantive value claims to support their projects and foster an ethic of community, collaboration, deliberation and intellectual freedom15.

Role of the Library Professionals in Open Source era:

To enable the use of the Open source resources, the Library professionals have to change their role and perform their functions as under:

Helping to create sensible open source policies and procedures and to provide feedback about how they work in practice.
Assisting in designing the Open Source user interface so that it is clear, easy to use, and effective.
Helping to identify current self-archiving activity on campus to aid the content recruitment effort.
Acting as change agents by promoting the use of Open Source e-prints and other resources to faculty and graduate students in their subject areas.
Informing faculty and graduate students about Creative Commons licensing options in case of Open Source Software and publisher e-print policies.
Depositing digital materials for faculty in their subject areas if such assistance is desired.
Participating in the creation of metadata, such as local controlled vocabularies (e.g. subject categories for Institutional Repository documents).
Preparing web-based and paper documents that explain and promote the IR and advocate scholarly publishing reform.
Training users in using Open Source resources and searching procedures.
Assisting local and remote users with open source utilization, answering questions about Open Source policies and procedures, and using the IR to answer reference questions.

CONCLUSION:

With the advent of the Open Source initiatives, the concept of paperless library came into reality. Further, the libraries are the beneficiaries from the open source movement, as much of information is available for free or lesser cost. Further, the communication of information is also made easy. The institutional repositories made the functions of the library inexpensive. Open Source Movement is supposed to be an "enabler" for growth in developing countries. Moreover, economic growth driven by Open Source depends on the wide dissemination of Open Source usage and competences. The skills

development aspects of open source encourage this, provide support for the generation of research information locally and furthermore facilitate a reciprocal relationship where developing economies and local players can quickly start contributing to the global information developer community and hence to the global economy.

REFERENCES:

1.Raghavan, KS: Open Access Remodelling Scholarly Communication. 4th International Convention CALIBER 2006. Gulbarga: Gulbarga University, 2-4 Feb 2006. P. 747-755.
2. Open Source Movement. Wikipedia. The free encyclopedia.
3. Ho, Adrian K and Bailey, Charles W: Open access webliography. Reference Services Review. Vol. 33. No.3. 2005. P. 346-364.
4. Budapest Open Access Initiative. http://www.soros.org/openaccess/read.shtml accessed on 25th December 2012.
5. Warner, Simeon: E-Prints and the Open Archives Initiatives. Library Hi-Tech. Vol. 21. No. 2. 2003. P. 151-158.
6. McCulloch, Emma: Taking stock of open access: progress and issues. Library Review. Vol. 55. No. 6. 2006. P. 337-343.
7. Joint, Nicholas: Institutional repositories, self-archiving and the role of the library. Editorial. Library Review. Vol. 55. No. 2. 2006. P. 81-84.
8. Bailey, Charles W: The role of reference librarians in institutional repositories. Reference Services Review. Vol. 33. No. 3. 2005. P. 259-267.
9. Chang, Sheau-Hwang: Institutional Repositories: the Library's new role. Editorial. OCLC Systems & Services. Vol. 19 No. 3. 2003. P. 77-79.
10.Westell, Mary: Institutional Repositories in Canada. Institutional Repositories: Proposed Indicators of Success. Library Hi-Tech. Vol. 24. No. 2. 2006. P. 211-235.
11. Bell, Suzanne and Others: Reference Librarians and the Success of Institutional Repositories. Reference Services Review. Vol. 33. No. 3. 2005. P. 283-290.
12. Rao, Vani P and Nikham, Khaiser: Open Source Software: A Case study. Proceedings of the National Conference SALIS 2006. Coimbatore: SALIS & Karunya Deemed University, 8-10th June 2006. P. 39-44.
13. Tamizhchelvan, M: Open Source Software in Library Management: Koha-An Overview. Proceedings of the National Conference SALIS 2006. Coimbatore: SALIS & Karunya Deemed University, 8-10th June 2006. P. 110-114.
14.Muir, Scott P: An Introduction to the Open Source Software Issue. Library Hi-Tech. Vol. 23. No. 4. 2005. P. 465-468.
15.Berry, David M: Internet Research: Privacy, Ethics and Alienation: An Open Source Approach. Internet Research. Vol. 14. No.4. 2004. P. 323-332.