Creation of Institutional Repositories in Academic Libraries Environment

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Abstract

In the developmental process of digital library formation, institutional repositories are the most advanced collections that are taking the academic yield of the scholastic community. In the higher learning institutions these are the university communities. The influential responses are supposed to be based on two premeditated issues. In the provision of an essential constituent in reforming scholarly communication, and the valuation of the user services undertakes in the benchmarking activities i.e. indicators of an institution's quality. Thus increasing its vision, kudos, and reducing the vacuum of public digital information use. This paper examines institutional repositories from these complementary perspectives, describing their potential role and exploring their impact on major Stakeholders in the reflective communication practices.

Keywords: Institutional Repositories, Academic Libraries

1. Introduction

Institutional repository (IR) component simply expands its limitations to access (Recommendation of NKC) to add to research mentality and reorientation of fellows, reasserts control over scholarship by the academy, increases competition and increases the power of printed journals. It definitely brings economic relief and heightened relevance to the institutions and libraries that prop them up; and the potential indicators of a university's quality demonstrate the scientific, societal, and economic relevance of its research activities in each and every department for all under the university system, the main motto of university education. Admittedly institutional repositories present a strategic response to systemic problems solving in the collection development in online, subscribed and free e-journal system and the rejoinder can be functional without delay, in harvesting and reaping both, the short-term and ongoing benefits for universities and their faculty .The nature of advancing the positive transformation of communication over the long term. Thus "institutional repository a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organizational and access or distribution" (Lynch, 2003).

2. Past of IR

William Gardner and Steven Harnad in 1990 brought the concept into light about the use of electronic communication becoming it a viable tool for dissemination of scholarly literature. Later in 1994, an institutional archive came in response

to Harnad's "Subversive Proposal for Electronic Publishing" (1995, Okerson and O'Donnell). Nobel Prize winner Joshua Lederberg introduced another thought of 'disciplinary archives' above the institutional repository. By the years 2001 and 2003, the issue of high scientific journal prices and the institutional repositories were illuminated (Crow, 2002), developed by the Scholarly Publishing and Academic Resources Coalition (SPARC), set up by the Association of Research Libraries (ARL). In 2001 only the release of EPrints.org and in 2002 the release of DSpace was undertaken. By 1999, Virginia Tech and Hawlet Packerd brought the Networked Digital Library of Theses and Dissertations (NDLTD) easing the route to the e – repository creation.

By 1999, the development of the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) build bridge for interoperability and searching repositories and in 2001; the OAI group produced a first stable version of the protocol. That the use of simple Dublin Core at the most basic level and by providing a simple URL based query schema, this protocol noticeably lowered the implementation barriers for interoperable citations. Where OAI protocol was to reduce the cost of journals, in Indian environment, it brought another revolution of open archiving in increasing the access, and use of scientific journals as well as less use of paper could be made possible.

3. Underlying Principle of IR

The rationale for universities and colleges implementing institutional repositories rests on two interrelated proposition, one that wires an extensive, institutional landscape changes another that offers direct and immediate benefits to each institution that connoted with the repository.

Institutional benefits are immense like registration for Paper (on electronic) processes, submission to journals for academic divisions of the departments, author – researcher - publisher interrelationships, certification of Peer review for the pre-print and post prints and correlation with academic referees are much easier than earlier. Awareness about the internal publishing in Library journal selection and supports are made easy. Librarians, publishers of academic institutions perpetually remain interdependently functional in this total e-publishing management.

4. Publishing Models

In any institutional repository, it could be constructed to centralize, preserve and make accessible an institution's intellectual capital resource for the administrative machinery functions and reverences. On the other hand they will form part of a global system of distributed, interoperable repositories that provides the foundation for a new aggregated model of scholarly publishing. Furthermore this model unbundles the principal functions of scholarly communication, thus presenting the potential to realize market efficiencies previously hidden by the vertically integrated publishing model that now characterizes in the university periodicals (journal, newsletter, reviews and bulletins) publishing.

4.1 Content Creation

In the content layer, the major function of institutional machinery is to have a basic category of a structure in which the institutional publications are kept in a classified bundled form. This could be made as per the local availability and the variation features. It may be the creators of intellectual products, author proxies (departments,

officer communities, and scholarly societies), special initiative for the institutional research fellows deposit scholarly research and other intellectual product in one or more content repositories. This could be subject specific, chronology specific or any other strata maintained submission. Institutional repositories represent but one type of content archive, forming part of a global system of decentralized, distributed repositories. Such a system offers reasonably a number of benefits. The sum total content basically segregates in the institutional production and the harvested metadata systems content development. The IR conforms to the server subsystems, its capacity input and the retention of backups in mirror servers based on the client-server-client futuristic domain.

4.2 Archiving

Presently, there is no globally recommended or accepted archival standards format for ensuring the prolonged existence and preservation of digital formats. Rather, an evolving and fluid set of technically best found process and perform guides are the most digital preservation planning and e-content management stake holdings undertaken so far. The long-term retention of digital objects requires proactive administration and substantial possessions. Many librarians remain dubious of the publishers' suitability for this task given their inherently shorter-term perspective. Institutional repositories, in the context of a scholarly publishing model, keep responsibility for the preservation of research materials in the hands of librarians, those professionally equipped and committed to handle it.

4.3 Service Provision

The service layer comprises two major sub divisional e-content provisions depending on the MOU or an Approved Agreement between the librarian with administrators and the user community. Apart from the internal intellectual products of an organization, it is the administrators rule to provide the repositories resources to the domain generic or specific. Development in an articulated feature in inculcation and provision of the various value-added services that provide practical mechanisms for the registration, certification, and awareness functions. Besides the self-archiving allowance needs much apprehensive and collateral propagation in vertical and horizontal line to be brought into the central content creation is a challenging act. Self archiving in that sense may require collaborative network to bring the function on the desktops. These services facilitate and felicitate the earlier ones or replace those provided by the current journal publishing system. Again, these services assist the use of the content in institutional and complementary open online repositories, but remain logically separate from the repositories themselves.

5. Essential of IR

5.1 Software Requirements

Software for repositories available are DSpace, GSDL (Green Stone Digital Library), Eprint Archive, Fedora: An Open Source Digital Repository Management (Fedora Itore), Ages Digital Libraries Software (My Ages), CDSware: The CERN Document Server Software, Dienst, FirstSearch, Ganesha Digital Library version 3.1 (GDL), Libronix Digital Library System, Roads, ETD-db (Electronic Theses and Dissertations

database), LOCKSS (Lots of Copies Keep Stuff Safe), As GSDL installation is user- friendly and stores all types of data like Ph.D theses, faculty publications, lecture notes, student's dissertations, learning objects, PG level & NET/SET question papers, suggestive answers, links to open knowledge objects, project reports, gray literature, unpublished theses and necessary photographs successfully and enables the upload from every user terminal with the fantastic user interface so one may select GSDL for the digitization project.

5.2 System Security

Parallel to the integration, a system is needed, which can converse to establish institutional security mechanisms, it may be restricted by IP/ password with corresponding user barcode provision facility.

5.3 Archival Maintenance

Archive need to be fairly locked so that no open editing or reference modifications or any kind of alteration is not made beyond the authority.

5.4 Administrative Tools

Maintenance of repositories characteristically requires system specific trained administrator's technical tools to assist this supervision become extremely significant.

5.5 Metadata Harvesting and Archiving

To keep a reputable service network in the institution and beyond institution harvesting of metadata is necessary besides the proper archiving of the same.

5.6 Self Archiving for IRs

Using an OAI-compliant Eprint Archive to deposit a digital document for self-archive is a best possibility for public accessibility through any popular web site. Depositing involves a simple web interface where the depositor copy/pastes in the "metadata "with the document bibliographic details like author/creator, title, journal-name, volume number, and date as for DOI to be attached with the full-text document. Software is already being developed to allow documents to be self-archived in bulk. Additionally, the authors may also self-archive an extensive selection of other types of digital intellectual works, such as books, presentations, teaching materials, technical reports, and theses and dissertations.

Regarding the IRs the authors are categorically be distributed to Pre-published, Post-published, Copyright retainers, Copyright transferred to publishers, Pre-print versions and Institution domain specific type of articles to strictly follow the rules of publications. This methodology needs to be followed austerely to avoid the misuse and misleading use of electronic versions of scholarly publications. Besides this kind of persuasion of repository management is necessary to develop a fair environment in e-reference as well as the hallmark activity of every IR Model.

6. Trends in Indian Libraries

In Indian environment, some of the benchmarking educational and research institutes like ISI, CSIR, IITs and IIMs have already started their initiation in several phases in building IR. Some of the Universities like the Central University of Hyderabad, Delhi University and the University Grants Commission (INFLIBNET) have already developed a policy document on building University level Institutional Digital Repository (http://www.ugc.ac.in) in India'. DSpace is vividly used software in the Shodhganga Project for the ETD

(Electronic Thesis and Dissertation) submission that is creating a massive bibliographic as well as full-text data for the research scholars referring theses and dissertations. Vidyanidhi a project of Vidysagar University has a similar kind of experiences in the e-IR creation and maintenance.

UGC in the 7th International INFLIBNET CALIBER 2009' had an Institutional Repository Project for the same purpose, beside DRTC, Bangalore performed differently in the Librarian's Digital Library (LDL) are quite institute specific. They are working on the related standards for different kinds of digital documents, multi-lingual and multi-script documents processing, search and retrieval necessities and client interfaces at a choice of levels are so far regular functionality. In the University of North Bengal the situation is just on the move. Even then the Central Library of the university has already made an Institutional Repository of its entire administrative documents updated since 1962, the date of inception of the university, till current date. It is though a domain specific and restricted for only use of administrative purposes on the Institutional requirements. University of Calcutta has already made the bibliographic data of its retrospective collection of Ph. D .Theses. The content of the E-Journals has been used since last few years. Similarly, BUDLP (Burdwan University Digital Library Project), JUDLP (Jadavpur University Digital Library Project) have made their IR according to the authorization and other factors consideration.

7.   Conclusion

Those of the Open source software are simply non-expensive could be installed and taken into institutional account for IR creation. Motivation is a basic requirement on the infrastructural cost,

server installation and the Internet connections, with multi user, multi platform end user, beside the benefits are immense. Services of benchmarking activities could be enhanced from every corner through the IR model establishments.

References

1. www.cni.org

2. Crow, R. 2002. The Case for Institutional Repositories: A SPARC Position Paper [online]. SPARC. Available from: http://www.arl.org/sparc/IR/ir.html [date of visit 2/11/ 2011]

3. EPrints.org, "Self-Archiving FAQ," search date 12/11/2011 at http://www.eprints.org/openaccess/selffaq/.

4. Lynch, Clifford A., and Joan K. Lippincott. "Institutional Repository

Deployment in the United States as of Early 2005." D-Lib Magazine 11, no. 9 (2005). Search date 12/11/2011 at http://www.dlib.org/dlib/september05/lynch/09lynch.html

5. Okerson, A., O'Donnel, J. 1995. Scholarly Journals at the Crossroads: A subversive Proposal for Electronic Publishing [online]. ARL. Available from: http://www.arl.org/scomm/subversive/ [visited on 12/12/ 2011].

6. www.dublincore.org/Search date 12/11/2011 at www.arl.org/stats/arlstat/graphs/2004/aexp04_pub.pdf

6. McDowell, Cat S. "Evaluating Institutional Repository Deployment in American Academe Since Early 2005: Repositories by the Numbers, Part 2." D-Lib Magazine 13, no. 9/

10 (2007). Also available at the site search date 12/11/2011 at http://www.dlib.org/dlib/september07/mcdowell/09mcdowell.html

7. Foster, Nancy Fried, and Susan Gibbons. "Understanding Faculty to Improve Content Recruitment for Institutional Repositories." D-Lib Magazine 11, no. 1 (2005). Search date 12/11/2011 at http://www.dlib.org/dlib/january05/foster/01foster.html

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