Institutional Repository Projects in India

Kanchan Kamila

Abstract

This paper discusses about the concept of Institutional Repository (IR), its relevance, merits, software requirements and the current trends in India, with special reference to the initiatives at Burdwan University .

Keywords: Institutional Repositories, GSDL, Image Magick, Ghostscript

1. Introduction

An Institutional Repository (IR) is a digital archive where a university community's intellectual work is made accessible and preserved for posterity. The concept of IR suggests the tantalizing possibility of greater library influence over the full cycle of scholarly communication on campus, from research through publication, collection, and preservation. Libraries are performing lead role in shaping institutional digital repositories all over the world.

According to Clifford Lynch "a university-based institutional repository is 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 organization and access or distribution." (1)

2. Relevance

The building of an Institutional Repository for any organization is needed in the present scenario of digital world because of the following certain changes:

- Technological changes;
- Significant increase in the overall volume of research;
- Increasing need of archival and access to unpublished information bearing objects;
- Increasing demand to access knowledge objects from anywhere at anytime;
- Increase uncertainty over who will handle the preservation archiving of digital scholarly research materials.

The importance of the standard IR project may be summarized as below:

1. It will help to develop a national research repository infrastructure by setting up, populating and linking individual repositories;
2. It will stimulate development of services that draw on research information made available through the repository infrastructure;
3. It will provide a window that gives open access to

   to improve the sponsoring institution's visibility and status;
4. It will support the open-access model of publication.

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3. Benefits

3.1. For the contributor

- Greater citation: Studies have shown that articles freely available on the Internet are cited more often than their paper counterparts.
- Speed: Faculty members can self-publish their preprints immediately, with the possibility of receiving immediate feedback.
- Organisation: An institutional repository can contain all of the scholarly work by one faculty member, including material such as pre-prints, post-prints, presentations, and classroom materials (dependent on copyright restrictions). Instead of being scattered about in different databases, servers, or computer hard drives, this material can be browsed easily in one place by the user, and reused easily by the contributor.
- Preservation: In order to ensure continued access, digital files need to be refreshed and migrated. Ten years from now, will you be able to open a Microsoft Word file you've created today? Depositing a file into an institutional repository means that the burden of ensuring the file can be opened is placed on the curator of the institutional repository, and not on the owner.
- Ease of use: Although self-submission is possible in our institutional repository, it's much more likely that all uploading will be done by the library. All that is needed are files to upload and permission to upload it.
- Permanent place: Depositing an item into an institutional repository means that it stays in one place and maintains the same URL.

3.2. For the institution

- The scholarly material produced by the university is available in one place, reflecting the intellectual achievements of the institution, and serving as a valuable marketing tool.
- Documents reflecting the institutional history of the university, both scholarly and non-scholarly, are preserved for future use, much like a traditional archive preserves paper material.
- Material that is not traditionally published is included in the repository, including drafts of unpublished articles or book chapters, unpublished research, student works, learning objects, and creative works.

3.3. For the user

- Material in an institutional repository can be found through a search engine.
- There is no charge to access this material, and there are no subscription fees. Our repository contains material that is best displayed in its original digital format, such as audio files, video files, animations, and data sets.
- Gray literature, material not easily found through conventional means, will be actively recruited for the repository. This can include material such as working papers, pre-prints, white papers, conference presentations.

3.3.1. Individual Benefits

- Wider distribution
- Showcase
- Safekeeping
- Lower technology barrier
- Time
- Persistent URLs

3.4. Other Benefits

1. Increased visibility to the Library
2. Complete customization of policies and user interface
3. Responsiveness to local user needs and preferences
4. Increased contact with constituents
5. Showcase and preserve scholarly output and historic documents
6. Archive post-prints, preprints (and extra materials)
7. Support teaching and learning
8. Provide curatorial stewardship for disorganized and scattered digital materials
9. Papers will get persistent URL and more cititons
10. No need of maintaining server or back up.

4. Software for IR

There are various types of Digital Library softwares are available e.g., 1. DSpace (Digital Space), 2. GSDL (Green Stone Digital Library), 3. eprint Archive, 4. Fedora: An Open Source Digital Repository Management (Fedora Itore), 5. Ages Digital Libraries Software (My Ages), 6. AGES Software, 7. CDSware: The CERN Document Server Software, 8. Dienst, 9. FirstSearch, 10. Ganesha Digital Library version 3.1 (GDL), 11. Libronix Digital Library System, 12. Roads, 13. ETD-db (Electronic Theses and Dissertations database), 14. LOCKSS (Lots of Copies Keep Stuff Safe), 15. CLOCKSS. As GSDL installation is very easy 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, links to open knowledge objects, project reports, gray literature, unpublished theses, necessary photographs etc. successfully and enables the upload from every terminal with fantastic user interface so we select GSDL for digitization project.

Greenstone is a suite of software which has the ability to serve digital library collections and build new 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 distributed in cooperation with UNESCO and the Human Info NGO. It is open-source software, available from http:// greenstone.org under the terms of the GNU General Public License. The necessary Software and Installation of GSDL include the following three software (version may change)

- J2re-1-4_2-07 windows-i586p (URL: http:// java.sun.com/j2se/downloads.html)
- gsdl2.80-win32 (URL: http://greenstone.org)
- Image Magick -6.3.4-4-Q16-Windows-dll

5. Current Trends in India

In India, some elite educational and research institutes (such as Indian Statistical Institute, some CSIR Laboratories, IITs, IIMs etc.) already started their initiatives in building institutional repositories including a few Universities (such as Central University of Hyderabad, University of Delhi.). University Grants Commission already developed a policy document on building University level Institutional Digital Repository (http:// www.ugc.ac.in) in India. Almost all of these

initiatives are experimental in nature (except a few such as Librarian's Digital Library (LDL) of DRTC, ISI, Bangalore) and are not based on research data as far as policy issues, institute-specific requirements, workflow pattern, metadata and other related standards for different kinds of digital documents, multi-lingual and multi-script documents processing, search and retrieval requirements and user interfaces at various levels are concerned.

6. Burdwan University Digital Library Project (BUDLP)

In case of Burdwan University (30 post graduate departments, 133 colleges (including Medical College), more than 300 faculty members and 50 administrative officers, having distance education and engineering colleges imparting graduate and post graduate education in different subjects) there is no mechanism for holding intellectual output of the University for scholarly communication. The objectives of making Institutional Repository for Burdwan University are to organize and preserve Ph.D theses, faculty publications, lecture notes, student's dissertations, learning objects, PG level & NET/SET question papers, links to open knowledge objects, project reports etc. In some disciplines, institutional repositories may play significant roles in disseminating both unpublished and published research results. Development of such an Institutional Digital Repository (IDR) requires in-depth study in terms of policy issues, management techniques, workflow pattern, submission procedure, long-term preservation, multi-script records management, global access and retrieval mechanism.

After discussing the every policies of IDR in Library Committee meeting we have started the Digital Library Project works at full suing. For this purpose, HP 8300 model Scanner and GSDL have installed and teachers and officers have informed to supply the publications, learning objects, bio-data time to time for uploading the same in Digital Library Project. We have submitted a Digital Library Project to the UGC for financing the same but till now the project is not approved by UGC. After getting the financial assistance from UGC we have a plan to purchase one scanner for each department for upload the materials from their own interface. It will reduce the time span and complexity for uploading. We have alraedy organize a training programme to aware the scanning and uploading in GSDL. Presently we have collected the materials from every department and upload the same in our Digital Library Project. We will host the same in the web very shortly.

The repository approach of organizing and consolidating information makes it possible for all of its potential users to access it easily, and also enables information and knowledge sharing. The repository approach also makes it possible for management to organise and access information by specific area of interest, and to make it available to employees more easily in any situation.

The main objective of the BUDLP to support information needs of the university stakeholders. It is the way (IR) by which we can promote our research work globally and earn recognition for us and for the University. It also increases the visibility and prestige of the institution. It will provide an alternative digital platform to its stakeholders for publishing preprints, post-prints, working papers, technical reports, conference papers and other kinds of intellectual outputs. From Burdwan University's view point, Universities across the world will gain a more efficient and cost-effective system of

scholarly communication. This type of repository would definitely solve the problems of the researchers, faculties, officers, students by satisfying their diverse needs of information in various ways.

7. Conclusion

As the GSDL and other allied softwares are available through open source and free of cost so if you have the training or acquire some knowledge from anybody regarding installation of this software and uploading of data then it can help you to work with digitization. For this purpose, scanner, digital camera, internet connection (for internet data upload and web hosting of this project), some dedicated skilled manpower etc. will help you to carry on the digital library project as well as to help the internal and external users enormously.

Reference

1. **Lynch, C.** Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age. ARL Bimonthly Report, 2003, p. 226. www.arl.org/newsltr/226/ir.html (retrieved April 21, 2004).

About Author

Dr. Kanchan Kamila, Asstt. Librarian, The University of Burdwan, Burdwan.
E-mail :kanchan_lis@yahoo.co.in