INSTITUTIONAL REPOSITORIES: A KEY ROLE FOR LIBRARIES

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ABSTRACT

The institutional repository is a digital archive, owned and maintained at Either departmental or institutional level. It is a tool for collecting, storing and disseminating information to advance scholarly communication.

KEY WORDS - *Institutional Repository/ Digital Archives.*

1. INTRODUCTION

The universities and research organizations all over the world have begun to pay more and more attention to the production and usage of documents in the digital form, which includes text, graphics, photographs, archival material, websites, blogs and vlogs, video and audio material, television and radio broadcasts, which is held and / or transmitted in electronic form.

The content of an IR may be purely scholarly or may comprise administrative, teaching and research materials, both published and unpublished. Foster and Gibbons describe an IR as "an electronic system that captures, preserves, and provides access to the digital work products of a community".

2. What is an IR?

An institutional repository consistes of formally organized and managed collection of digital content generated by faculty, staff and students at an institution. The content of these repositories can be available for integration with on-campus library and course management systems, and can also be made available to staff and students at other institution, as well as to the general public.

3. Objectives

- To provide open access to institutional research output by self-archiving it
- To store and preserve other institutional digital assets, including unpublished or otherwise easily lost literature

4. Essential Elements

The four essentials elements that an IR should have:

Institutionally defined: The IR should have the content generated by the community in an Institution. The content represents the historical and tangible embodiment of the intellectual life and output of an institution. There is no need for each institution to act on its own to create an institutional repository. The existing library consortia will be a platform with its infrastructure to create an IR. The consortia could help proliferating IRs and attaining a critical mass of open access content.

Scholarly Content: An IR may contain any work product generated by the students, faculty, non-faculty researchers and the staff of an institute. The content may include preprints, working papers, published papers, teaching materials,

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theses and dissertations, research and technical reports, conference proceedings, statistical repots, technical documentation, video recordings, and other gray literature.

Cumulative and Perpetual: The content or the materials included in the IR should not be withdrawn except in rare cases and should be preserved for current and future scholars to use. The IR should accommodate more and more digital objects as the submission will continue piling up year by year.

Interoperable and open access: Providing access to the intellectual output generated by the institution increases awareness of research contributions. The users outside the institute must be in a position to find out information from the repository. So the system needs to support interoperability to provide access via search engines and other discovery tools. The system should maintain and expose the metadata to allow other services to harvest and search the content. An Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH) compliant information system allows the repository to provide indexing, search and content description services so that the internal and external users can access the content.

5. Stakeholders and their benefits:

Individuals: For individual authors, the IRs can provide a central archive for their
Research work. The individual's work can be widely disseminated and this will have a great impact. The IRs can act as a full CV for the individual authors.

Institutions: The institutions can use the IRs as a marketing tool to attract high quality faculty, students and funding for its research activities. The IRs are a means of increasing visibility and prestige. These can be the centralized storage of all types of institutional output including unpublished gray literature and also for standardization of institutional records for long term cost savings.

Research Community: The research community will be able to access the world's research available in different IRs, which ensure long-term preservation of institute's academic output. The IRs facilitate faster communication process and also avoid unnecessary duplication.

6. Issues and Challenges

The institutional culture: The existence of collaboration and trust within the
institution should convince the faculty to contribute to a repository to enhance their reputations in their disciplines in order to disseminate their work.

Scope of the repository: The IR may be limited to self-archiving by authors or may include the intellectual output and business and administrative documents for the whole institution. A repository should provide the means for unearthing the treasures and bringing them to light.

Content: The criteria for deposit into the repository could come from each community or from a central body with input from the participants Access Levels: Each institution defines its own policies dealing with access to and use of materials in repositories. Copyrighted materials may carry a variety of restrictions.

Standards: Interoperability requires that repositories employ standards developed to handle issues associated with open access. These standards include the Open Archival Information System (OAIS) Reference Model; Open Archives Metadata Harvesting Protocol (OAI-PMH) and the Metadata Encoding and Transmission Standard (METS). Sustainability and funding: The repository needs constant

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attention to run. The talents and commitment of time and energy from Librarians, Archivists, faculty and IT staff is essential to the success of a repository project.

7. IR Implementation

- Learning and examining the existing institutional repositories
- Exploring and conducting need assessment in your set up for the possibility   of having an IR
- Developing policies for content acquisition, distribution and maintenance
- Grouping a team of experts to create an IR
- Technology considerations – Software and Hardware and installation
- Creating and maintaining the IR

8. IR Initiatives

Growing number of institutions have actively been engaged in creating and managing the IRs. Some of the initial players at the international level who have developed the IRs are mentioned below: DSpace Repository Project at MIT (http://dspace.org)

- DSpace developed open source software with a grant from Hewlett Packard and created a federation of universities – Cambridge University, Columbia, Cornell, MIT, University of Rochester, University of Toronto and the University of Washington - to work collaboratively on the project.
- Contains a variety of research materials deposited in accordance with the policies developed by departments and research units at MIT.Scholarship Repository of the University of California (http://repositories.cdlib.org)
- Part of the California Digital Library

9. IR developments in India

Many of the frontline research institutes and universities in India have developed IRs and the number of universities and research institutes that are creating and managing the IRs is gradually increasing. A few examples of IRs of Indian institutions are given below:

- Indian Institute of Management Kozhikode, Kozhikode
  http://dspace.iimk.ac.in/ http://eprints.iimk.ac.in/
- National Chemical Laboratory, Pune
  http://dspace.ncl.res.in/index.html
- National Institute of Technology, Rourkela
  http://dspace.nitrkl.ac.in/dspace/
- Indian Institute of Science, Bangalore
  http://etd.ncsi.iisc.ernet.in/ http://eprints.iisc.ernet.in/
- University of Delhi, Delhi
  http://eprints.du.ac.in/
- National Aerospace Laboratory, Bangalore
  http://nal-ir.nal.res.in/
- National Informatics Centre, New Delhi
  http://openmed.nic.in/
- INFLIBNET Centre, Ahmedabad
  http://dspace.inflibnet.ac.in
- DRTC, Bangalore
  http://drtc.isibang.ac.in
- Vidyanidhi, University of Mysore, Mysore

10. IR Software

Though there are a number of software available to implement the IR. But the open source software like EPrints (http://www.eprints.org) and DSpace (http://

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www.dspace.org) are finding a growing number of users at national and international level as implementing this technology is relatively simple as compared to other available software.

11. Key Role of Libraries

The libraries are moving from the traditional role of custodian, access, and distributor into a new role as part of the creation and dissemination process. The libraries have long experience with developing and managing content and many of the skills applied to print and other forms of digital collections will be transferable to the institutional repository environment and the librarians can greatly increase the relevance and visibility of an institution by involving themselves in building an IR. The concept of IRs seems to hold great promise for making open access a reality and because of the benefits of open access; libraries could provide direct access to scholarly publications via IRs instead of publishers and vendors. If the libraries are to build repositories that incorporate informal scholarly communication, then they will need to develop an improved understanding of how this content contributes to the processes of research and scholarly communication.

12. CONCLUSION

The libraries should take a key role to establish the IRs to preserve and make accessible the digital content of scholarly publications. The libraries and the librarians do play crucial role in enhancing the visibility and importance of institutions for which they serve by actively taking part in the building, maintenance and sustenance of IRs. The libraries will also come to rescue of individual authors by helping them deposit their content into the IR and also deposit the content on behalf of the individuals who can not self-archive their content.

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