INSTITUTIONAL REPOSITORIES: A GATEWAY FOR KNOWLEDGE REVOLUTION

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Abstract

The emergence of computer communication technology has accelerated and offers great opportunities to fast, cost effective and efficient electronic communication. In addition, universities and other institutions across the globe are building up their own institutional repository center. Therefore, librarians and library professionals should take initiative and come up with institutional repositories so that researchers and the scholars can access the scholarly publishing materials. The present article highlights the overview of the institutional repositories. It also highlights the development of institutional repositories and its role.

Keywords: Institutional Repositories; Digital content; Open access; DSpace.

1. Introduction

With the process of globalization in knowledge activities, the demand for information has been growing steadily in all spheres of work. In the field of education, the view of learning and teaching has changed dramatically. The information technology has now enable new ways of setting up learning activities and become today's society as knowledge society. Therefore we are moving towards global sharing of information, which is digital content information.

In the present age of information revolution and ever increasing demand for exact and consolidated information, the functions and old methods followed by traditional libraries are being replaced by new techniques and technology. The concept of access to information free of charge in electronic format becomes today's growing momentum. Creating Institutional Repositories (IR) is a step towards open access. Open access is one step ahead of free access. With the advent of IT, human knowledge has now revolutionized. In order to cope up with such situation, Institutional Repositories has emerged as a major component in involving a digital collection of scholarly communication.

2. Defining Institutional Repositories

An Institutional Repositories is "a digital collection capturing and preserving the intellectual output of a single or multi-university community." It consists of formally organized and managed collections of digital content generated by faculty, staff and students at an institution. The content can be made available for integration with on-campus library and course management systems and also to colleagues and students at other institutions, as well as to the general public.

Another definition of IR is that, it is 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 and thus collects, stores and disseminates.

3. Why Institutional Repositories?

Many technological trends and development efforts came together to make a new strategy that allows universities to apply serious systemic leverage to accelerate changes taking place in scholarship and scholarly communication. Online storage costs have dropped significantly so that repositories are now affordable. Standards like the open archives metadata harvesting protocol are now in place and some progress has also been made on metadata itself. IR may provide a place for faculty work, students, dissertation, e-journal etc, as IR is an electronic system of providing access to digital information. IR also provide an institution with a mechanism of scholarly output, centralized and introduced efficiencies to the stewardship of digital document of value and can respond proactively to the escalating crises in scholarly communication. The availability of open-source IR system has encouraged a proliferation of IR world wide among the academic and research institutions.

4. Institutional Repositories: Its Content

An IR may bear many characteristics of a traditional institutional archive, except the content is always digital. It is usually aimed exclusively at research and teaching material rather than institutional records or special collections.

IR may contain a wide variety of materials such as:

- pre-prints of articles or research reports;
- journal articles;
- course material;
- conference papers;
- teaching materials;
- handouts;
- doctoral thesis and dissertations;
- student projects;
- monograph;
- datasets resulting from research projects;
- photographs and video recordings.

5. Role of Institutional Repositories

IR, what we are known today is a phenomenon of the archiving digital material of the later part of the twentieth century and came in the wake of the advances in computer and telecommunication technologies. IR implies a system that designed to support and achieve the needs and goals of the institution not necessarily those of the individual. Moreover, contributions of materials into the repository serve to highlight the achievements of the institution. A fully mature and realized IR

performed the documentation of the activities of the institution itself and stored the experimental and observational data captured by the number of institutions that support their scholarly activities. IR significantly enhanced and extends the role of library and also provides services to researches, faculty and administrators. Thus, IR enables the faculties, researchers to:

- make their own work easily accessible to others on the web through Google searches and searches within the IR itself
- preserve digital items far into the future, safe from loss or damage
- give out links to their work so that they do not have to spend time finding files and sending them out as email attachments
- maintain ownership of their own work and control who sees it.

6. Recent Development in Institutional Repositories

In the past few years, as the trends towards digital scholarship, instruction, publishing, and communication begins to become clearer, the library world has begun to see the possibility of a fundamental change in its role as the steward of the scholarly record. In the year 2000, the Massachusetts Institute of Technology (MIT) Library created an IR system called DSpace with funding and collaboration from Hewlett Packard. The vision of this project was of a federated repository to make available research institutions. Its main aim was to create a scalable digital archive to preserve and communicates the intellectual output of MIT's faculty and researchers and to support adoption by and federation with other research institutions. DSpace was launched in November of 2002 as a free, open source system which any person or institution anywhere could download and run locally. IR are a moving target, that DSpace is a very young system, and that both will evolve rapidly in the coming decade. The number of institutions creating IR grows monthly, from a few dozen now to over a hundred in the next year. On May 10-11, 2005, an International Conference on "Making the strategy Case for Institutional Repositories" was organized by the Coalition for Networked Information (CNI), the UK Joint Information Systems Committee (JISC), and the SURF foundation in the Netherlands. The organizers collected data to see the current state of deployment of IR in some country. According to their survey, the number of IR in each country is shown in Table-1.

Table-1: Recorded number of Institutional Repositories

Sl.No	Name of the Country	No. of Institutional Repositories
1	Australia	37
2	Belgium	8
3	Canada	31
4	Denmark	6
5	Finland	1
6	Germany	23
7	France	103
8	Italy	17
9	Norway	7
10	Sweden	25
11	Netherlands	16
12	United Kingdom	31

6.1 IR development in India

In India, many IRs are established in order to help an institution in improving its quality as well as visibility worldwide. Some of the IRs which are functioning actively in India are shown in Table-2 below:

Table-2: Position of Institutional Repositories in India

Sl.No	Institutional Repository	Software used	Number of documents
1	Bioinformation	Other Software (OAI)	100% freely accessible fulltext(estimate). Included in DOAJ services
2	Digital Archive of National Institute of Technology, Rourkela Research	DSpace	Total number of documents are 163
3	DSpace @ INFLIBNET	DSpace	Total OAI Records, 428
4	EPrints @ IIMK: Indian Institute of Management Kozhikode Scholarship Repository	GNU EPrints (OAI)	100% freely accessible fulltext (estimate).
5	ETD @ IISc Electronic Theses and Dissertations at Indian Institute of Sci.	DSpace (OAI)	Total OAI Records, 140
6	Indian Institute of Information Technology	GNU EPrints (OAI)	100% freely accessible fulltext (estimate)
7	Indian Institute of Science, Bangalore	GNU EPrints (OAI)	Total OAI Records, 2524
8	ISI Library, Bangalore	DSpace (OAI)	Research Institutional or Departmental Publication database
9	Librarians' Digital Library	DSpace(OAI)	Total OAI records, 188
10	Natuional chemical Laboratory, Pune	DSpace (OAI)	Total OAI Records, 200
11	Open MED @ NIC	GNU EPrints (OAI)	Total OAI Records, 875
12	Rajiv Gandhi Centre for Biotechnology	Other Software (OAI)	e-Journal/Publication

7. Conclusion

In the last few decades there is a wave of change in the information world and this new world of information has thrown up myriad of challenges. To be successful in the present world, libraries need to be proactive and reevaluate service models that have functioned for years. We firmly belief that all these will be possible only when there is co operation among libraries by providing wider access to electronic resources at an affordable cost. Therefore library should attempt to establish

IRs that preserve and make accessible to digital materials of scholarly communication. Though IR are at a critical point in their development, IRs could become a compelling and useful tool. If properly aligned with the existing practice of faculty, IRs has the potential to fulfill many of their so far unmet expectations.

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