Institutional Repositories of India: A Comparative Study of North-Eastern Hill University with Other Universities

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Abstract

The Institutional Repositories are one of the burning questions in this digital era. It is a means through which intellectual contribution are brought to light and make accessible to all through the web. This paper attempts to list out the institutional repositories of the universities in India. A comparison has been made with the institutional repository of North-Eastern Hill University. The paper highlights the important parameters such as size, collection type, subjects, language etc. which plays an important role in evaluating a repository.

Keywords: Institutional Repositories, North-Eastern Hill University, DOAR, ROAR, Universities

1. Introduction

"Libraries are store houses of books" is a bygone truth. With the advent and application of ICT libraries have a more dynamic role to play. Though it cannot be denied that the motive of the libraries still remains the same i.e. to provide services to the users yet the methods or means through which these services are delivered have changed drastically. The concept of open access has dominated the whole information world including libraries. The need for open access to scholarly publication was felt due to many barriers that existed in the acquisition and dissemination of scholarly literature. The objective of open access is to make the scholarly articles accessible to the users freely over the net. While the open access journal models were experimented in the publisher and organizational level, institutional repositories were experimented by the educational institutions and more notably the universities (Jain,S.K. & Shrivastava,A.,n.d.). The development of institutional repositories is an endeavor by different institutes to bring those research articles to the fore front which was secluded or not known to the mass and so far, these institutes seem to have achieved their goals to an extent.

2. Definitions

An institutional repository (IR) is a "digital archive of the intellectual product created by the faculty, research staff, and students of an institution and accessible to end users both within and outside of the institution, with few if any barriers to access. In other words, the content of an institutional repository is:

❖ Institutionally defined;

❖ Scholarly;

❖ Cumulative and perpetual; and

❖ Open and interoperable (Crow, 2002).

An Institutional Repository is an online locus for collecting, preserving, and disseminating the intellectual output of an institution, particularly a

research institution. For a university, this would include materials such as research journal articles, before and after undergoing peer review, and digital versions of theses and dissertations, It might also include other digital assets generated by normal academic life, such as administrative documents, course notes, or learning objects (Lihitkar,S.R.,Lihitkar,R.S. & Agashe,A.T.,2009).

An IR is a digital repository of the research output of an institution. Institutional repositories are one of the most promising developments that utilize new web technologies to offer a viable & sustainable alternative to the current model of scholarly publishing. Institutional repository is the exhibition of an institution to the world where institution displays its valuable research program, projects and initiatives to the world. In an academic institution, an IR is created from the research output of the faculty, staff and students & made available to the user both within & outside the institution (Karmakar,G.S.,Das,R. &Thakuria,J.,2010).

3. Need and Importance of IR

In a nutshell it can be said that Institutional Repositories are important for:

❖ Scholarly communication

❖ Preserving digital Materials

❖ Increase the institution's visibility, status and public value

❖ Easy/Open access

❖ Preservation and control of one's own publications

❖ Improved citation of research publications as the repository will be interoperable (comply with OAI-PMH) and accessible globally.

❖ IR facilitates more timely access to research publications of faculty members and research scholars

❖ Electronic publishing

❖ Organizational support for faculty seeking innovative approaches to research dissemination.

❖ Demonstrate the quality, and scientific, social and economic relevance of an institution's research.

❖ Improved research knowledge management.

❖ Resource discovery

❖ Dissemination of research widely

❖ Research evaluation and assessment

❖ Institutional and personal impact

❖ Information asset management by institutions

❖ Process improvements –store once, use many times

4. Institutional Repositories in India

There are numerous institutional repositories in India. Some of these are functional institutional repositories, developed by research and academic institutions of national and international importance, such as the Indian Institute of Science and the Indian Institute of Management. Apart from institutional repositories, subject specific repositories also exist in India. These store and provide access to subject specific collections of documents. These repositories accept scholarly publications from any professional or researcher who belongs to the respective discipline. Librarian's Digital Library (LDL) of the Documentation Research and Training Centre (DRTC), Bangalore

is an example of a subject specific repository for library and information professionals. Another subject-specific repository established in India is OpenMed@NIC, maintained by the National Informatics Centre, New Delhi. Another kind of digital repository existing in India stores and provides access to document type specific collections. Vidyanidhi of the University of Mysore is an example of document type specific collection that stores and provides access to theses and dissertations (Cross-institutional ETD repository). Vidyanidhi accepts any thesis or dissertation that has been accepted in any of the Indian universities or institutions (Fernandez, 2006). However, it is an irony that out of so many institutional repositories only few are registered either in ROAR (Registry of Open Access Repositories) and DOAR (Directory of Open Access Repositories). At present there are 46 and 68 institutional repositories in India, registered in DOAR and ROAR respectively.

5. Institutional Repository of North-Eastern Hill University

North-Eastern Hill University (NEHU) is counted as one amongst the most reputed institutes of India. It was established in 1973 and right from the year of its inception till date NEHU has shown its intellectual excellence in education and research. It was bestowed the title 'University with Potential for Excellence' by the University Grants Commission (UGC) in 2006. However, its triumph did not stop with the achievement of this honour and great works still continued. There were tremendous research outputs and significant publishing by the faculty, students as well as library professionals. One more achievement that added a feather to the hat was the establishment of an institutional repository under the UPE (University

with Potential for Excellence) project in 2007. This step was taken as a measure to preserve and disseminate the research outputs of NEHU. At present the institutional repository of NEHU maintains the documents of 28 departments and 3 centres . The total strength of the collection is 4263 out of which 19 and 635 are the number of M.Phil and Ph.D. dissertations respectively. The total collection also include 467 North- East book collection, 962 administrative documents, 46 question papers and 88 NEHU journals.

6. Methodology and Selection of Sample

This study is limited only to the institutional repositories of the universities of India. The universities were selected from the list of registered institutional repositories of ROAR (Registry of Open Access Repositories) and DOAR (Directory of Open Access Repositories). The number of repositories in both the sources differed i.e. 46 and 68 institutional repositories in India, registered in DOAR and ROAR respectively. However, the number of institutional repositories of the universities in India was limited to 11 in both the cases. Therefore, these 11 universities were taken up for the present study and NEHU's institutional repository was compared with them. The data is analyzed based on selected parameters, like type of institutional repository, software used for repositories, size of the items, languages, content included etc.

7. Objective of the Study

The main objective of this study is to evaluate the institutional repositories of the universities in India and to compare them with NEHU's institutional repository on the basis of certain parameters such as type, size, content, url, software used etc.

8. Analysis of Data and Interpretations

Name of the organization	Name of the Institutional Repository	URL	Type	Software Used
Cochin University of Science & Technology (CUSAT)	i.Dyuthi (Digital repository of Cochin University of Science & Technology ii. DSpace at CUSAT	i. http://dyuthi.cusat.ac.in/ ii. http://dspace.cusat.ac.in/	i. Institutional – Operational ii. Institutional - Operational	DSpace DSpace
Delhi College of Engineering	Institutional Repository of Intellectual Contributions of Delhi Technological University	http://www.dspace.dce.edu/	Institutional - Operational	DSpace
Guru Gobind Singh Indraprastha University	DSpace @ GGSIPU	http://14.139.60.216:8080/ xmlui/	Institutional - Operational	DSpace
Indira Gandhi National Open University (IGNOU)	eGyankosh	http://www.egyankosh.ac.in/	Institutional - Operational	DSpace
Madurai Kamaraj University (MKU)	Eprints@SBT MKU	http://eprints.bicmku.in/	Institutional - Operational	Eprints
Mahatma Gandhi University	Mahatma Gandhi University Theses Online	http://www.mgutheses.org/	Institutional - Operational	Nitya
Pandit Deendayal Petroleum University (PDPU)	DSpace@PDPU	http://library.pdpu.ac.in: 8080/xmlui	Institutional - Trial	DSpace
Thapar University (TU)	DSpace@TU	http://dspace.thapar.edu: 8080/dspace/	Institutional - Operational	DSpace
University of Delhi	DU Eprint Archive	http://eprints.du.ac.in/	Institutional - Operational	Eprints
University of Kashmir	Knowledge Repository Open Network (KNoor)	http://dspaces.uok.edu.in: 8080/dspace/	Aggregating - Operational	DSpace
University of Mysore	i.DSpace at Vidyanidhi ii. Vidya Prasarak Mandal - Thane	i. http://dspace.vidyanidhi. org.in:8080/dspace/ ii. http://dspace.vpmthane. org:8080/jspui/index.jsp	i. Institutional – Operational ii. Institutional - Operational	DSpace
North-Eastern Hill University	North-Eastern Hill University Digital Library	http://dspace.nehu.ac.in	Institutional - Operational	DSpace

Table 1: Name, Type, URL and Software Used

Name of the Institutional Repository	Items	Subject Coverage	Content	Language
i. Dyuthi (Digital repository of Cochin University of Science & Technology iiDSpace at CUSAT	995 items (2010-04-15) 3199 items (2011-07-13)	Multidisciplinary	Articles; Theses; Learning Objects Articles; Conferences; Theses; Books; Learning Objects; Multimedia; Special	English English
Institutional Repository of Intellectual Contributions of Delhi Technological University	841 items (2011-03-02)	Chemistry and Chemical Technology; Mathematics Astronomy; Technology General; Civil Engineering; Computers and IT; Electrical and Electronic Engineering; Mechanical Engineering and Materials	Articles; Theses; Multimedia	English
DSpace @ GGSIPU	133 items (2011-11-10)	Multidisciplinary	Articles; Theses; Learning Objects	English
eGyankosh	6190 items (2008-08-27)	Multidisciplinary	Learning Objects	English
Eprints@SBT MKU	21 items (2010-02-04)	Biology and Biochemistry	Articles	English
Mahatma Gandhi University Theses Online	913 items (2009-03-30)	Multidisciplinary	Theses	Sanskrit; Malayalam; Hindi; English
DSpace@PDPU	64 items (2010-11-17)	Multidisciplinary	Articles; Unpublished	English
DSpace@TU	292 items	Multidisciplinary	Articles; Conferences; Theses	English
DU Eprint Archive	170 items (2009-03-13)	Multidisciplinary	Articles; Conferences; Theses; Books; Patents	English
Knowledge Repository Open Network (KNoor)	458 items (2011-08-23)	Science General; Agriculture, Food and Veterinary; Health and Medicine; Technology	Articles; Conferences; Theses	English; Hindi; Arabic;
i.DSpace at Vidyanidhi	5480 items (2009-10-20)	Multidisciplinary	Theses Articles;	English;
ii.Vidya Prasarak Mandal - Thane	411 items (2011-01-19) Learning Objects; Multimedia		Conferences; Kannada Marathi Persian	Hindi;
North-Eastern Hill University Digital Library	4263 items	Multidisciplinary	Articles; Theses; Books; Learning Objects; Special	English

Table 2: Items, Subject Coverage, Content and Language

9. Findings

After analyzing the above data the following was found:

9.1 Software Used: Out of the 13 institutional repositories 10 used DSpace software while the rest used other software for maintaining the collection of their institutional repositories.
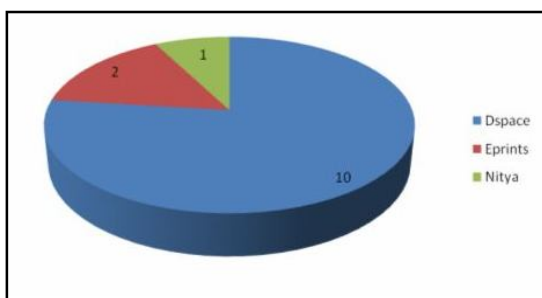

Figure 1: Software Used by IRs of Universities of India

9.2 Items: The highest collection (6190 items) was maintained by eGyankosh which is the institutional repository of IGNOU while the lowest collection (21 items) is that of Eprints@SBT MKU, an institutional repository of Madurai Kamaraj University (MKU).
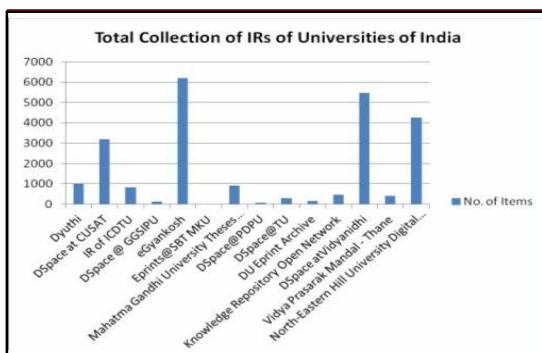

Figure 2: Total Collection of IRs of Universities of India

9.3. Subject Coverage: Most of the institutional repositories covered multidisciplinary subjects.

9.4 Subject Content: All the 13 institutional repositories studied contained scholarly articles. Most of them also had conference proceedings, books and theses. However, two universities included special items in their collection which refers to previous year's examination question papers.

9.5 Language Used: English is the common language used for the repositories except for few which also have Hindi, Arabic, Persian and some other local languages such as Marathi, Kannada etc.

Apart from the above it was also found that though universities have registered their institutional repositories in DOAR/ROAR, yet they do not update their information frequently. It is sad to notice that only few universities updated their information while some did not update since the year 2008. Another important finding is that NEHU is one of the institutes with a huge collection build up in a very short span of time. This can be a leading example for other institutes with the help of which research can be enlightened and acknowledged as well.

10. Conclusion

Institutional Repositories play a very important role in the ICT world of today. All the institutes, be it academic, research or some other organization should take strong steps to enhance intellectual contribution by building up IRs of their own. Moreover, the softwares required to build up these repositories are available freely. So, maintaining of the scholarly works can now be preserved and disseminated in a cost effective way. NEHU is a pioneer in North-East India for building its own institutional repository with a huge collection. It

also contains a special collection of North-East books which can be openly accessible on the web. Thus, building of the institutional repository can also be said to be serendipitous in nature as it would also open up North-East to the main land as well as to the rest of the world.

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