Are we shining on Open Access Institutional Repositories

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Abstract - The present study examines the open access repositories in India. Institutional repositories development in India dates back to the development of Eprints @IISc by TB Rajasekhar in 2002. Since then considerable development of institutional repositories has occurred. The data for the study were collected from OpenDOAR (Directory of Open Access Repositories) in December 2017. OpenDOAR provides a quality-assured listing of open access repositories around the world.

Keywords: Institutional Repositories, Open Access Resources, IRs, Open Access Publishing, India.

Introduction

Dr. S.R. Ranganathan, the father of library science in India, in his famous book *Five Laws of Library Science* (1957) indicated the need of availability of documents to every user irrespective of the fact where the user is and where the document is available? The idea put forward by Rangathan log back was mooted in a transformed and minified from with the Budapest Open Access Initiative arising from a small meeting convened by Budapest by the Open Society Institute (OSI) on December 1-2, 2001, The purpose of the meeting was to accelerate progress in the international effort to make research literature in all academic fields freely available on the Internet. (Nazim & Maya Devi (2008).

Open access (OA) is achieved through what are called green and gold routes. Harnad et al. (2004: 310) defines green OA as “publishing your article in a non-OA journal but also self-archiving it in an OA archive.” Green (self-archiving) OA is selfarchiving of a published article or peer-reviewed manuscript in an online repository before, after or alongside its publication. Table 1 highlights the various forms of Green OA as defined by Bjork et al. (2014).

The gold route of open access is achieved by publishing in open access journals which do not charge for access to the articles but recover the cost through other financial models. OA journals and repositories differ in their relationship to peer-review. First OA journals perform their own peer review, just like conventional journals. Repositories generally don’t perform peer-review, although they host and disseminate articles peer-reviewed elsewhere. As a result, gold and green OA differ in their support costs and in the roles they can play in the scholarly communications universe. Second, OA journals obtain the rights or permissions they need directly from the rights holders, while repositories ask depositors to obtain the needed rights or permissions on their own. Even when the depositors are the author themselves, they may already have transferred key rights to publishers.

Open access initiatives in India

The chapter of open access initiatives in India started with the launch of the first open access journal Pramana in 1998. India’s first institutional repository, Eprints@IISc was set up by TB
Rajasekhar in 2002. After that many government institutions and universities took steps to develop repositories to disseminate their intellectual output to wider audiences. Some of the noteworthy institutions are the National Aerospace Laboratory, the Indian Institute of Astrophysics, the Raman Research Institute, the National Institute of Rourkela, the Indian Institute of Delhi and the Indian Institute of Management, Kozhikode. The National Knowledge Commission also recommended the adoption of open access in 2006. The National Institute of Science Communication and Information Resources (NISCAIR) made all 17 of their journals available in open access. In February of 2009 CSIR headquarters asked 37 laboratories to set up open access repositories (Subbaih and Muthu, 2011). The Government of India, Ministry of Science and Technology, Department of Biotechnology (DBT) and Department of Science and Technology (DST) (2014) approved an open access policy that aims to provide online access to increase the impact of its research and foster a rich research culture. It is a remarkable initiative in the history of the open access movement. The policy makes it mandatory that the information and knowledge resulting from publicly funded research be made public as soon as possible, subject to Indian law and IP policies of respective funding agencies and institutions. The rapid growth of open access repositories in India in a short period of time creates a need for further study of the phenomenon in the Indian context.

Objectives

- To provide an overview of open access repositories across the world.
- To analyse various parameter of growth and development of Indian IRs.

Methodology

The data were collected from OpenDOAR on 1 December 2017. OpenDOAR (Directory of Open Access Repositories) is maintained by SHERPA services, based at the Centre for Research Communications at the University of Nottingham, United Kingdom, carried out initially in partnership with Lund University, Sweden. OpenDOAR provides a quality-assured listing of open access repositories around the world. OpenDOAR staff harvest and assign metadata to allow categorization and analysis to assist the wider use and exploitation of the resources. From the list of repositories mentioned in OpenDOAR, ‘repositories of India’ was selected and analyzed. According to OpenDOAR data, 79 Indian repositories are represented. The data were processed and analyzed using a Microsoft-Excel spreadsheet.

Results:

There are 3464 repositories are functioning worldwide. Among them nearly half of them are in Others, followed by United States (14.4%) and united Kingdom (7.4%). Japan (6.3%). And (5.9%) Germany remaining countries like Spain, France, Italy, Brazil, Poland and India are having below 4% repositories.
Growth of Indian Institutional Repositories

The below graph shows the changing size of the OpenDOAR Database over time database growth in India. There are 79 Institutional Repositories in India. The shape of the chart in 2006 reflects the work of OpenDOAR rather than the growth of the number of actual repositories. A backlog of new records built up while the database was being redeveloped during mid-2006, and clearing this backlog created the step in the graph. The chart better represents the true growth in the number of repositories from 2007 onwards.

Type of software used

Repository software types DSpace is the most widely used software by most of the Indian institutes as shown in Table-1. DSpace has 56.96% followed by Eprints 36.71%. Drupal, 2.53% Greenstone, HTML, and Nitya, have 1.27% while other below 1% of repositories did not specify the software on which they were built.

<table>
<thead>
<tr>
<th>Software</th>
<th>No.of Inst.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drupal</td>
<td>2</td>
<td>2.53</td>
</tr>
<tr>
<td>DSpace</td>
<td>45</td>
<td>56.96</td>
</tr>
<tr>
<td>EPrints</td>
<td>29</td>
<td>36.71</td>
</tr>
<tr>
<td>Greenstone</td>
<td>1</td>
<td>1.27</td>
</tr>
<tr>
<td>HTML</td>
<td>1</td>
<td>1.27</td>
</tr>
<tr>
<td>Nitya</td>
<td>1</td>
<td>1.27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Content-wise IR Databases in India

Fig-3 shows that the most common content type listed in OpenDOAR is journal articles, followed by theses, and then conferences papers, Books, unpublished reports and working papers, Multimedia and audio visual materials, Learning objects, Other special items, Bibliographic references, Patents and datasets.

Subject –wise distribution:

Most of the repositories take a multidisciplinary subject approach. Fig-4 shows that the multidisciplinary collections constitute a high percentage followed by Science, Agriculture, Food and Veterinary, Biology, Chemistry, Earth and Planetary Sciences, and little bit high percentage of Technology and remaining few percentage as shown in the graph.
Conclusion

The open access movement is attaining significance for various reasons. With respect to India, solely seventy nine establishments have taken initiatives of federal agency. There are 813 universities in India and variety of analysis and development establishments. Hence the academic and research institutions in India have to take initiatives to build their repositories. Another important factor is there are many institutions keep their IRS on Intranet. Those federal agency aren't usually on the market via open access. Since the essence of federal agency is to preserve facilitate and access intellectual output of an establishment, the performance of Indian initiatives isn't satisfactory

References