

# Community Engagement in Indian Open Access Repositories: A Deposit Activity Profile

Mohammad Hanief Bhat  
Islamia College of Science & Commerce, Srinagar  
India  
[mhanief30@yahoo.co.in](mailto:mhanief30@yahoo.co.in)

*ABSTRACT: During the past decade, the open access is gaining momentum in India. As a result, a number of Open Access (OA) repositories are coming up in different institutions. The present study is an attempt to ascertain the success of these repositories by way of community engagement. Greater the community engagement, greater the deposit activity of the repository will be. The deposit profiles are automatically generated from OAI (Open Archives Initiative) harvesting information. The results suggest that only a few repositories are active and the rest being mostly static including the largest repository of IISc (Indian Institute of Science).*

## I. Introduction

The importance of access to world's research information for the development of a strong economy and vibrant research capability is widely acknowledged. Yet financial barriers limit access by developing countries to research information they need. Equally true is the fact that the unique research carried out in developing countries, which represent 80% of the world's population, is largely invisible to the international science community due to the former's economic constraints. Open access to world's publicly funded research literature provides equal opportunities for communication of all research information, eliminating financial barriers (National Open Access, 2006).

India, being a major developing country, is spearheading open access movement in the developing countries since last decade by establishing a number of OA repositories (Das, Sen & Dutta, 2007). India stands at number twelve in the repository tally at world level with 39 (November, 2008) OA repositories registered in [Registry of Open Access Repositories](#) (ROAR).

A number of studies regarding the Indian OA repositories have been undertaken by authors like Das, Sen & Dutta (2005); Das, Sen & Dutta (2007); Madhan, Rao & Awasthi (2006); Fernandez (2006); Patel, Vijaykumar & Murthy (2005); Doctor (2007); Jayakanth, Minj, Silva, & Jagirdar (2008); Sutradhar (2006), covering various

issues. However, no effort has been made so far to judge the success of these repositories. The most common way to measure the relative success of repositories is to compare the gross number of items that they hold (Carr & Brody, 2007). Thomas & McDonald (2007) used actual number of contributors and their actual number of deposits in judging the success of repository. According to Carr & Brody (2007), however, the key to a successful repository is sustained deposits and the key to sustained deposits is community engagement. They applied deposit activity to the measurement of the success of a repository and found that smaller repositories are more active than the larger ones. Thus more deposit activities in a repository imply more community engagement and the resultant success of a repository.

The present study endeavours to measure the success of Indian digital repositories by deposit activity criteria.

## **II. Objective**

The objective of the present study is to ascertain the community engagement in Open Access repositories of India through an analysis of the deposit activity in a one year period.

## **III. Scope**

The scope of the study is limited to the deposit activity of 18 Indian OA repositories from November, 2007 to October, 2008.

## **IV. Methodology**

ROAR provides automatic deposit activity of the repositories by taking data from Celestial, an OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting) compliant harvesting proxy. ROAR lists one year deposit activity under three categories: 1) 1-9, 2) 10-99, and 3) 100+ deposits, indicating "weak", "healthy" and "batch imports" respectively. The registry identified 39 repositories in India (as on 31-10-2008), out of which only 20 are registered in Celestial. Two repositories "Institutional repository at MDI"[\[1\]](#) and "Kautilya@igidr"[\[2\]](#) were launched in April and March 2008 respectively. Hence one year deposit activity is not available. The information regarding the 18 OA repositories is collected, tabulated and analysed to reveal findings in accordance with the study objective.

## **V. Findings and Discussion**

The highest number of days of activity, 182, is for "OpenMED@NIC"[\[3\]](#), which has a collection of 2,274 documents. Out of the 182 days, 171 are with "1-9 deposits" and 11 days with "10-99 deposits". There are no "100+ deposits" during the year. This implies that deposit activity is between "weak" and "healthy" ranges with no "batch imports" during the preceding year.

The second most active repository is "DSpace@IIA"[\[4\]](#) (which has 3,060 documents) with 100 days of "1-9 deposits" and 34 days of "10-99 deposits" but without any "batch imports" during the year.

The third most active repository is "NAL-IR"[\[5\]](#) (which has 2,879 documents) with 97 days of "1-9 deposits". However, there are no "10-99" or "100+ deposits" in the repository during the year, implying that deposits are in the weak range with no "batch imports". "Catalysis Database@NCCR"[\[6\]](#) stands at number four in the deposit activity list with 1,197 documents. Its total days of deposit activity are 94, out of which 91 days are "1-9 deposits" and 3 days of "10-99 deposits" and without any "100+ deposits".

The next two repositories are "DSpace@NITR"[\[7\]](#) and "Raman Research Institute[\[8\]](#) digital repository" with 91 and 64 days of "1-9 deposits" respectively.

For the three repositories "Librarians Digital Library"[\[9\]](#), "DSpace at National Chemical Laboratory, Pune"[\[10\]](#) and "OneWorld South Asian Open Archive Initiative"[\[11\]](#), there have been no documents added during the past year.

The days of deposit activity for all other repositories are in the range of 1-34 days (Table 1).

As the number of working days in India is roughly 250, it is evident from the data that only two repositories have more than one hundred days of active deposits and a few others more than fifty days of deposits. Three repositories are without any activity. All other repositories have less than 35 days of activity. The figures of openMED@NIC are encouraging as it is the most active repository, although most of the deposit activity days are in the weak category.

No.	Name of Repository	Total Collection	One year deposit activity (November, 2007 to October, 2008)			
			1-9 deposits (days)	10-99 deposits (days)	100+ deposits (days)	Total days of activity
1	DSpace at INFLIBNET	505	1	-	-	1
2	DSpace at ICFAI Business School (IBS), Ahemadabad	206	12	-	-	12
3	DSpace@IIA: Indian Institute of Astrophysics	3,060	100	34	-	134
4	DU Eprint Archive (Delhi University)	170	3	-	-	3
5	Eprints@IIT Delhi	2,143	3	-	-	3
6	ETD@IISC (Indian Institute of Science)	314	27	-	-	27
7	DSpace@IIMK: Indian Institute of Management, Kozikode	475	10	4	-	14
8	eprints@IISC, Bangalore	7,635	1	1	-	2
9	Librarians Digital Library	188	-	-	-	-
10	NAL-IR (National Aerospace Laboratory)	2,879	97	-	-	97
11	DSpace@NCAOR: National Centre for Antartic Research	514	2	-	1	3
12	Catalysis Database-National Centre for Catalysis Research	1,197	91	3	-	94
13	DSpace at National Chemical Laboratory Pune	357	-	-	-	-
14	DRS@NIO: National Institute of Oceanography	1,434	27	4	3	34
15	DSpace@NITR: National Institute of Technology, Rourkela	668	87	4	-	91
16	One World South Asian Initiative	808	-	-	-	-
17	Open MED@NIC	2,274	171	11	-	182
18	Raman Research Institute digital repository	3,514	53	11	-	64

Table 1: Deposit activity of Indian OA repositories

Table 2 displays Indian's top ten OA repositories as per their collection. And Table 3 lists India's top ten OA repositories as per their days of activity. The eprints@IISC, Bangalore, the largest repository in the study ranks no. 1 in Table 2 but does not make an entry in the top ten repository list arranged as per deposit activity in Table 3. Similarly, two more repositories "Eprints@IIT, Delhi" and "OneWorld South Asian Open Archive Initiative" rank no. 6 and no. 9 respectively in Table 2 but fail to show up in Table 3. On the other hand, the three repositories "ETD@IISC", "DSpace@IIMK, Kozikode" and "DSpace at ICFAI Business School (IBS), Ahemadabad" make their entry at no. 8, 9, and 10 respectively in Table 3 but do not appear anyway in Table 2.

No.	Name of Repository	Total collection
1.	eprints@IISC, Bangalore	7,635
2.	Raman Research Institute digital repository	3,514
3.	DSpace@IIA: Indian Institute of Astrophysics	3,060
4.	NAL-IR (National Aerospace Laboratory)	2,879
5.	Open MED@NIC	2,274
6.	Eprints@IIT Delhi	2,143
7.	DRS@NIO: National Institute of Oceanography	1,434
8.	Catalysis Database-National Centre for Catalysis Research	1,197
9.	One World South Asian Initiative	808
10.	DSpace@NITR: National Institute of Technology, Rourkela	668

Table 2: Top ten OA repositories (collection)

No.	Name of Repository	Days of activity
1.	Open MED@NIC	182
2.	DSpace@IIA: Indian Institute of Astrophysics	134
3.	NAL-IR (National Aerospace Laboratory)	97
4.	Catalysis Database-National Centre for Catalysis Research	94
5.	DSpace@NITR: National Institute of Technology, Rourkela	91
6.	Raman Research Institute digital repository	64
7.	DRS@NIO: National Institute of Oceanography	34
8.	ETD@IISC (Indian Institute of Science)	27
9.	DSpace@IIMK: Indian Institute of Management, Kozikode	14
10.	DSpace at ICFAI Business School (IBS), Ahemadabad	12

Table 3: Top ten OA repositories (deposit activity)

## VI. Conclusion

The study findings suggest that some small repositories are more active compared to some larger repositories. The "eprints@IISC, Bangalore" has only two days of deposit activity, implying less community involvement. On the other hand, "openMED@NIC", despite being relatively small in size, is the most active Indian repository, although there is no batch import. If the deposit activity of the smaller repositories continues to outpace that of the larger ones, they will grow faster than the latter, as suggested by Carr and Brody. It could be concluded that most of the repositories in India are not active with less or no community engagement.

### Notes:

[1] MDI stands for "Management Development Institute" in Gurgaon, India. The URL address of the "Institutional repository at MDI" is: <http://dspace.mdi.ac.in>

[2] "igidr" stands for "Indira Gandhi Institute of Development Research" in Mumbai, India. The URL address of "Kautilya@igidr" is: <http://oii.igidr.ac.in:8888/dspace/index.jsp>

[3] NIC stands for "National Informatics Centre" in New Delhi, Indian. The URL address of "OpenMED@NIC" is: <http://openmed.nic.in>

[4] IIA stands for "Indian Institute of Astrophysics" in Bangalore, India. The URL address of "DSpace@IIA" is: <http://prints.iiap.res.in>

[5] NAL stands for "National Aerospace Laboratory" in Bangalore, India. The URL address of NAL-IR is: <http://nal-ir.nal.res.in>

[6] NCCR stands for "National Centre for Catalysis Research" in Madras, India. The URL address of "Catalysis Database@NCCR" is: <http://203.199.213.48>

[7] NITR stands for "National Institute of Technology" in Rourkela, India. The URL address of "DSpace@NITR" is: <http://dspace.nitrkl.ac.in/dspace>

[8] Raman Research Institute is in Bangalore, India. The URL address of its digital repository is: <http://dspace.rii.res.in>

[9] "Librarians Digital Library" is sponsored by Documentation Research & Training Centre of Indian Statistical Institute in Bangalore, India. Its URL address is: <https://drtc.isibang.ac.in>

[10] "National Chemical Laboratory" is in Pune, India. The URL address of "DSpace at National Chemical Laboratory, Pune" is: <http://dspace.ncl.res.in/dspace/index.jsp>

[11] The URL address of "OneWorld South Asia Open Archive Initiative" is: <http://open.ekduniya.net>

### References

Carr, Leslie; & Brody, Tim. (2007). Size isn't everything: Sustainable repositories as evidenced by sustainable deposit profiles. *D-lib Magazine*, 13(7/8). Retrieved December 1, 2007, from <http://www.dlib.org/dlib/july07/carr/07carr.html>

Das, A.K.; Sen, B.K.; & Dutta, C. (2005). Collection development in digital information repositories in India. *Vishwa bhara@tdil*, 17, 91-96. Retrieved November 26, 2007, from [http://eprints.rclis.org/archive/00005682/01/Das\\_Sen\\_Dutta\\_TDIL\\_05.pdf](http://eprints.rclis.org/archive/00005682/01/Das_Sen_Dutta_TDIL_05.pdf)

Das, A.K.; Sen, B.K.; & Dutta, C. (2007). ETD policies, strategies and initiatives in India: a critical appraisal. *10th International Symposium on Electronic Theses and Dissertations, Uppsala, Sweden (Uppsala, Sweden, 13th C 16th June 2007)*. Retrieved November 29, 2007, from [http://eprints.rclis.org/archive/00010657/01/Das\\_Dutta\\_Sen\\_India\\_ETD\\_2007\\_Paper.pdf](http://eprints.rclis.org/archive/00010657/01/Das_Dutta_Sen_India_ETD_2007_Paper.pdf)

Doctor, Gayatri. (2007). Knowledge sharing developing the digital repository of SIPS. *VINE*, 37(1). Retrieved May 23, 2007, from <http://www.emeraldinsight.com/10.1108/03055720710742043>

Fernandez, Leila. (2006). Open access initiatives in India-an evaluation. *The Canadian Journal of Library and Information Practice and Research*, 1(1). Retrieved November 22, 2007, from <http://journal.lib.uoguelph.ca/index.php/perj/article/view/110/172>

Jayakanth, F.; Minj, F.; Silva, U.; & Jagirdar, S. (2008). ePrints@IISc: India's first and fastest growing institutional repository. *OCLC Systems & Services*, 24(1). Retrieved April 19, 2008, from <http://www.emeraldinsight.com/10.1108/10650750810847260>

Madhan, M.; Rao, Y. Srinivasa; & Awasthi, Shipra. (2006). Institutional repository enhances visibility and prestige of the institute- the case of National Institute of Technology, Rourkela. *Paper presented at the National Conference on information management in digital libraries IIT Kharagpur, India*. Retrieved May 23, 2007, from <http://dspace.nitrkl.ac.in/dspace/bitstream/2080/310/1/madhan1.pdf>

*National Open Access Policy for Developing Countries (2006)*. Retrieved February 14, 2009, from <http://users.ecs.soton.ac.uk/harnad/Temp/bangalore.doc>

Patel, Yatrik.; Vijaykumar, J.K.; & Murthy, T.A.V. (2005). *Institutional digital repositories /e-archives: INFLIBNET initiatives in India*. Retrieved November 26, 2007, from [http://eprints.rclis.org/archive/00005653/01/vijayakumarjk\\_04.pdf](http://eprints.rclis.org/archive/00005653/01/vijayakumarjk_04.pdf)

Sutradhar, B. (2006). Design and development of an institutional repository at the Indian Institute of Technology Kharagpur. *Program: electronic library and information systems*, 40(3). Retrieved April 21, 2008, from <http://www.emeraldinsight.com/10.1108/00330330610681321>

Thomas, Chuck.; & McDonald, Robert H. (2007). Measuring and comparing participation patterns in digital repositories: repositories by the numbers, part1. *D-lib Magazine*, 13(9/10). Retrieved November 29, 2007, from <http://dlib.org/dlib/september07/mcdonald/09mcdonald.html>

---

**Author:**

Mohammad Hanief Bhat is a Senior Librarian at Islamia College of Science & Commerce, Srinagar, India. His email contact info is: [mhanief30@yahoo.co.in](mailto:mhanief30@yahoo.co.in)

---

Submitted to CLIEJ on 17 April 2009.

Copyright © 2009 Mohammad Hanief Bhat

---

Bhat, Mohammad Hanief. (2009). Community engagement in Indian open access repositories: A deposit activity profile. *Chinese Librarianship: an International Electronic Journal*, 27. URL: <http://www.iclc.us/cliej/cl27bhat.pdf>

---