*Open*DOAR: The Warehouse of Open Access Repositories

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ABSTRACT

Institutional repositories are digital collections of the outputs created within a university or research institution. This paper has made an attempt to know the Open Access institutional repositories in various subjects in OpenDOAR. The Raking of countries and institutions are made based on the number of repositories in OpenDOAR. It is found that majority of repositories are multidisciplinary. The study also found that 22.42% of Articles and 17.75% of Theses are deposited in OpenDOAR. The study identified that the majority repositories are in English language (2400)and Spanish language (437).

Keywords: Open Access; *Open*DOAR; Open Access Repositories.

1. Introduction

The Institutional Repository, a university-based digital-asset management system and it is a key component of the open access (OA) and reform of the scholarly communication process (Harnad, 2003). The awareness of the inherent problems in the system of scholarly publishing has spread from the research-library community to the hallways of the academies. The scholarly communication crisis encompasses interrelated problems. On the one hand, serial-subscription costs, particularly for science and medical journals, have been increasing rapidly over the last two decades, often at rates far above the cost of inflation. At the same time, research- library budgets have been decreasing or are otherwise unable to keep pace with price increases. The result is that libraries are spending more, but they are in fact getting less, in terms of journal titles and new monograph acquisition, as more of the budget is being consumed by serial subscriptions (Edwards & Schulenburger, 2003; Park, 2002).

Over the last 15 years almost all publishing of scholarly peer-reviewed journals has migrated to electronic Web publishing as the main channel of dissemination. However, the major revenue model of scholarly publishing, that of charging readers and their intermediaries for access, has for bigger and established publishers largely stayed the same. The publishing of academic journals has similar to such a variety of different areas in business and society, experienced a radical change because of the development of the Internet. Standard publishers of membership journals began publishing parallel electronic adaptations of their journals around the millennium shift and today electronic conveyance of enormous group of journals through e-permitting is the ruling plan of action (Tenopir, 2002). At the same period, new investors, both individual scientists and innovative publishing companies, have launched Open Access (OA) journals, which offer the full text of the journals to anyone with Internet to access and read (Laakso, 2011).

Keeping in view, the study has been made an attempt to know the availability open access institutional repositories in *Open*DOAR and it also identified the subject wise open access repositories. The ranking of repositories based on the records is also made.

2. *Open*DOAR: Directory of Open Access Repositories

*Open*DOAR provides a quality-assured listing of open access repositories around the world which is maintained by SHERPA Services, based at the Centre for Research Communications at the University of Nottingham. The primary service of the *Open*DOAR is to enhance and support the academic and research activities of the global community. It maintains a comprehensive and authoritative list of institutional and subject-based repositories. It also encompasses archives supported by funding agencies like the National Institutes for Health in the USA or the Wellcome Trust in the UK and Europe. One key point about *Open*DOAR is that this information is of use not only to users wishing to find original research papers but also for third-party service providers, like search engines or alert services, who need easy to use tools for developing tailored search services to suit specific user communities.

3.Data analysis and Interpretation

Table 1: Number of Open access repositories by subject

SL .No	Subject	Number of Repositories	Percentage
1	Multidisciplinary	2126	33.26
2	Science General	241	3.77
3	Agriculture Food and Veterinary	151	2.36
4	Biology and Biochemistry	157	2.45
5	Chemistry and Chemical Technology	101	1.58
6	Earth and Planetary Sciences	90	1.40
7	Ecology and Environment	154	2.40
8	Mathematics and Statistics	124	1.93
9	Physics and Astronomy	107	1.67
10	Health and Medicine	328	5.13
11	Technology General	240	3.75
12	Architecture	62	0.96
13	Civil Engineering	45	0.70
14	Computers and IT	172	2.69
15	Electrical and Electronic Engineering	54	0.84
16	Mechanical Engineering and Materials	69	1.079
17	Arts and Humanities General	171	2.67
18	Fine and Performing Arts	104	1.62
19	Geography and Regional Studies	186	2.90
20	History and Archeology	248	3.87
21	Language and Literature	149	2.33
22	Philosophy and Religion	131	2.04
23	Social Sciences General	197	3.08
24	Business and Economics	256	4.00
25	Education	195	3.05
26	Law and Politics	228	3.56
27	Library and Information Science	126	1.97
28	Management and Planning	103	1.61
29	Psychology	77	1.20
Total		**6392**	**100**

The data presented in the table-1 shows the open access repositories in various subjects. Among these subjects, majority of repositories are multidisciplinary (33.26%) followed by Health and Medicine (5.13%), followed by Business and Economics (4%), History and Archeology (3.87%). The table also reveals that Electrical and Electronic Engineering (0.84%)and Civil Engineering (0.70%) have very less number of open access repositories as compared other subjects.

Table 2: Ranking of top 10 languages based on the number of repositories

Language	Number of Repositories	Rank
English	2400	1
Spanish	437	2
German	259	3
French	224	4
Japanese	218	5
Portuguese	172	6
Italian	120	7
Chinese	115	8
Russian	98	9
Polish	91	10

The top 10 ranking of languages based on the number of repositories is shows in the table-2. It indicates that the 2400repositoriesare English languageand secured rank 1 followed by Spanish(N=437; rank 2) and German (N=259; rank 3). The table also indicates 115 repositories are in Chinese language, followed by Russian (98) and Polish (91) language.

Table 3: Content types of institutional repositories

Sl. No	Content Type	Number of Repositories	Percentage
1	Articles	2453	22.42
2	Books	1327	12.13
3	Conferences	1250	11.42
4	Datasets	183	1.67
5	Learning Objects	533	4.87
6	Multimedia	778	7.11
7	Patents	104	0.95
8	References	551	5.03
9	Software	52	0.47
10	Special	519	4.74
11	Theses	1942	17.75
12	Unpublished	1246	11.39
Total		**10938**	**100**

The table-3 shows the Content Types in *Open*DOAR. It can be seen from the table that majority of open access repositories are Articles (22.42%) followed by Theses (17.75%) and books (12.13%). It also shows that very less percentage of open access repositories are Patents (0.95 %) and software (0.47%).

Table-4: Use of software for creating institutional repository

Software	Number of Repositories	Rank
DSpace	1542	1
E prints	469	2
Digital Commons	164	3
WEKO	93	4
OPUS	84	5
DLibra	60	6
CONTENT dm	56	7
HAL	56	8
Greenstone	51	9
Fedora	49	10

The table-4 indicates the ranking of software used to create institutional repository. It is found that DSpace was most widely used software (1542 repositories) followed by EPrints (469 repositories) and Digital Commons (164 repositories).

Table 5: Top 10 Institute &Institutional Repositories in in India

Sl. No	Name of the Institute	Repository Name	Number of records
1	Information and Library Network Center (INFLIBNET), India	ShodhGanga: A reservoir of Indian theses	163072
2	Indian Council for Agricultural Research (ICAR), India	KrishiKosh	108458
3	Indian Academy of Sciences, India	Indian Academy of Sciences: Publications of Fellows	98182
4	Indian Institute of Science (IISc), India	Open Access Repository of IISc Research Publications	44281
5	V.V.Giri National Labour Institute, India	Archives of Indian Labour	42845
6	NISCAIR (National Institute of Science Communication and Information Resources), India	NISCAIR Online Periodical Repository	38798
7	Digital Repository of West Bengal Public Library Network, West Bengal Public Library Network, India	Digital repository of West Bengal Public Library Network	30959
8	Indira Gandhi National Open University (IGNOU), India	eGyankosh	27622
9	Osmania University, India	Osmania University Digital Library [OUDL]	24506
10	Gokhale Institute of Politics and Economics (GIPE), India	DSpace @ Gokhale Institute of Politics and Economics	23882

The table-5 shows the top 10 Institutions Repositories in India. It can be seen from the table that the ShodhGanga: A reservoir of Indian theses has the highest number of   records (N=163072; Rank 1) followed by KrishiKosh (N= 108458; Rank 2) and Indian Academy of Sciences: Publications of Fellows (N=98182; Rank 3). It also reveals that the Osmania University Digital Library [OUDL] has very less number of records (N=24506) and DSpace

@ Gokhale Institute of Politics and Economics (N=23882) have secured 9th and 10th rank respectively.

4. Conclusion

Institutional repositories (IRs) are increasingly deployed in academic institutions to manage a variety of digital content including educational, research, and archival materials. Institutional Repositories also increased knowledge sharing, control over the digital assets of the institutions, and preservation. The delivery of repository services is a crucial function of research libraries in the digital information era. The Universities and College libraries may organize the repositories to support open access. Thus the Librarians working in Universities and college libraries can make use of variety of institutional repositories available on the web.

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