Growth of Institutional Repositories in India: A Study

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Abstract

This paper discusses reaching the unreached institutional repositories in India. There are 120 institutional repositories available in the directory of open-access repositories in the different subjects. The relevant data were collected from OpenDOAR on 10th January 2023 and simple analyses were made. Among the 106 repositories, 96 (90.56%) are institutional repositories, 3 (2.83%) are disciplinary, 4 (3.77%) are governmental, and 3 (2.83%) are aggregating types. Therefore, it may be said that more than 90% of institutional repositories fall under this category. Additionally, 13 repositories were established in 2013, while none were added in 2018. Four repositories were added in 2022, it is mentioned.

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Keywords

Institutional Repositories; global level;India; software

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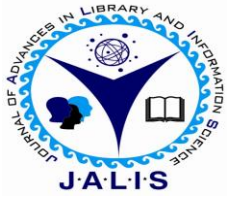

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1. INTRODUCTION

Any kind of information in a facility is essential for use when necessary. Therefore, data must be organized and stored for later use. Reports, theses, patents, papers, and other types of material may be retained locally or made publicly accessible by an institution. Since the institution created it and contains information about the institution, it is essentially institutional property. Some knowledge is created publicly through journal articles, institutionally published books, media reports, etc. Since the substance of this information is consistent, it is filed or saved correctly to allow for updating with prior years. Institutional repositories (IR) are used for this. The nature of the collection, such as the topic, organization, and nation, can be used to categorize the IR. The open access repository (DOAR) directory is the format in which these IR must be included. To make all of the IR easily accessible for the end user, DOAR has travelled the entire globe. This document makes an effort to locate the library and information science collections worldwide as well as in India, together with information about the types, software, and countries involved.

2. INSTITUTIONAL REPOSITORIES

An institution, organization, educational institution, etc. may have a specific collection managed via an institutional repository, a digital content management system. The information about the institutions, their reports, publications, seminar and conference volumes, journal articles, and other materials are kept in the digital content management system. These resources are saved in digital form for use in the future. The library compiles and maintains this type of information storage and retrieval. This institutional repository uses standard metadata components and the appropriate tools. Through networking technology, this archive is made accessible to the academic campus, and furthermore, it may be accessed online. Most volumes of seminar and conference proceedings and journal articles contain this kind of collected content. It is called the Directory of Open Access Repository and there are directories for linking these institutional repositories. This paper aims to explore the Indian repositories that are available.

3. DEFINITION

The mission of an IR is to be "institutionally defined, scholarly, cumulative and perpetual, open and interoperable" 'A digital repository is one where digital content, assets, are stored and can be searched and retrieved for later use'[1]. 'An institutional

repository is the collective intellectual output of an institution recorded in a form that can be preserved and exploited. Repositories for research materials are now quite common 'as much of the Institutional Repository work to date has concentrated on research outputs'.

According to Clifford Lynch (2005), "a university-based institutional repository is a set of services that a University offers to its community members for the management and dissemination of digital materials created by the institution and its community members. It is essentially an organizational commitment to stewardship these digital materials, including long-term preservation where appropriate, organization, and access or distribution."

4. NEED FOR THE STUDY

There is a directory of open access repositories that has links to every repository and contains various items at the global level. The repositories vary in contents, sizes, content types, subject collections, etc. This study is thus given to know the strength of the Indian collection system in Institutional repositories.

5. OBJECTIVES OF THE STUDY

The following objectives are framed to study in this paper

1. To find out strength of country wise IRs in India
2. To identify the various software using in IRs in India
3. To assess the types of Institutional Repositories in India

6. METHODOLOGY

This study is to discover the growth and development of institutional repositories in India. The relevant data of the Institutional Repositories has been collected from the open access repository (DOAR) directory. At the universal level there are 106 institutional repositories are available for in India. The required data was collected from the open access directory from http://www.opendoar.org/ on January 10, 2023, and analyzed using a simple frequency method.

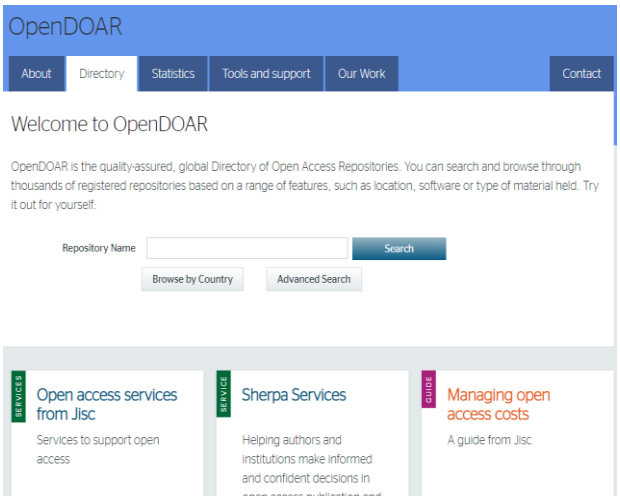

Figure 1.Home of Directory of Open Access Repositories

7. SCOPE AND LIMITATION OF THE STUDY

This study is limited to the Institutional Repositories at the global level, especially in India listed in the DOAR. It is only considered a repository in India and other countries will not b considered.

8. ANALYSIS AND INTERPRETATION

The Country wise contribution of the repository is made a simple frequency table. Country with the number of repositories and their percentage and cumulative percentage are shown in table 1.

Table 1: Distribution of Country wise IRs in the World

Sl.No.	Country	No. of IR
1.	United States of America	924
2.	Japan	657
3.	United Kingdom(	326
4.	Germany	299
5.	Peru	190
6.	Spain	182
7.	Turkey	180
8.	Indonesia	176
9.	Brazil	171
10.	France	162
11.	Croatia	157
12.	Italy	145
13.	Poland	137
14.	Colombia	112
15.	Ukraine	110
16.	India	106
17.	Canada	100

18.	Australia	92
19.	Argentina	85
20.	Netherlands	81
21.	Norway	66
22.	China	65
23.	Portugal	62
24.	Taiwan, Province of China	60
25.	Serbia	56
26.	Austria	55
27.	Mexico	53
28.	Korea (Republic of	51
29.	South Africa	51
30.	Sweden	51
31.	Russian Federation	50
32.	Hungary	48
33.	Kenya	46
34.	Switzerland	44
35.	Ecuador	39
36.	Greece	39
37.	Belarus	38
38.	Belgium	33
39.	Nigeria	33
40.	Czech Republic	31
41.	Ireland	31
42.	Chile	27
43.	Malaysia	25
44.	Finland	23
45.	Algeria	22
46.	Lithuania	21
47.	New Zealand	19
48.	Thailand	19
49.	Iran (Islamic Republic of)	18
50.	Cuba	16
51.	Sri Lanka	16
52.	Sudan	16
53.	Tanzania, United Republic of	16
54.	Venezuela (Bolivarian Republic of)	16
55.	Bangladesh	15
56.	Uganda	15
57.	Denmark	14
58.	Moldova (Republic of)	13
59.	Slovenia	13
60.	Kazakhstan	12
61.	Saudi Arabia	12
62.	Bulgaria	11
63.	Costa Rica	11
64.	Nicaragua	11
65.	Uruguay	11
66.	Zimbabwe	11
67.	El Salvador	10
68.	Hong Kong	10
69.	Egypt	9
70.	Estonia	9
71.	Philippines	9
72.	Dominican Republic	8
73.	Ghana	8
74.	Palestine, State of	8
75.	Panama	8
76.	Romania	8
77.	Singapore	8
78.	Cyprus	6
79.	Ethiopia	6
80.	Jamaica	6
81.	United Arab Emirates	6
82.	Iceland	5
83.	Iraq	5
84.	Latvia	5
85.	Macedonia (the former Yugoslav Republic of)	5
86.	Slovakia	5
87.	Botswana	4
88.	Georgia	4
89.	Lebanon	4
90.	Luxembourg	4
91.	Pakistan	4
92.	Senegal	4
93.	Bolivia (Plurinational State of)	3
94.	Libya	3
95.	Malawi	3
96.	Morocco	3
97.	Myanmar	3
98.	Zambia	3
99.	Armenia	2
100.	Azerbaijan	2
101.	Bosnia and Herzegovina	2
102.	Cabo Verde	2
103.	Fiji	2
104.	Honduras	2
105.	Kosovo	2
106.	Lesotho	2
107.	Mozambique	2
108.	Namibia	2
109.	Nepal	2
110.	Paraguay	2
111.	Rwanda	2
112.	Tunisia	2
113.	Andorra	1
114.	Cameroon	1
115.	Guadeloupe	1
116.	Guatemala	1
117.	Kuwait	1
118.	Kyrgyzstan	1
119.	Lao People's Democratic Republic	1
120.	Malta	1

121.	New Caledonia	1
122.	Puerto Rico	1
123.	Qatar	1
124.	Somalia	1
125.	Tajikistan	1
126.	Trinidad and Tobago	1
127.	Viet Nam	1
128.	Afghanistan	1
129.	Åland Islands	1
130.	Albania	1

The data presented in the table 1 indicates the country-wise distribution of institutional repositories available in India. On December 31, 2022, there are 6029 repositories available in the World and 106 institutional repositories in India. With 924 institutional repositories, the United States leads the other 106 countries. Japan comes in second with 657, and the United Kingdom takes the third spot with 326 repositories. However, with 106 institutional repositories, India ranks sixteenth out of the 106 countries. Seven nations out of 130 have just one institutional repository each, including Andorra, Cameroon, Guadeloupe, Guatemala, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Malta, New Caledonia, Puerto Rico, Qatar, Somalia, Tajikistan, Trinidad & Tobago, Viet Nam, Afghanistan, and Albania. Nonetheless, close to fourteen nations. But nearly fourteen countries in the World have equally have two institutional repositories.

Distribution of Type of IRs in India

Four categories of repositories exist: institutional, disciplinary, aggregating, and governmental. Institutional repositories include both departmental and institutional repositories. The content of the disciplinary repository is cross-institutional and subject-specific. The content of the aggregating repository is an archive that compiles data from a number of subsidiary repositories. The content of the government repository, which is shown in table 2, is entirely composed of data from the government.

Table 2: Type of IRs in India

Sl. No.	Type IRs	No. of IRs	%
1	Aggregating	3	2.83
2	Disciplinary	3	2.83
3	Governmental	4	3.77
4	Institutional	96	90.56
	Total	**106**	**100.0**

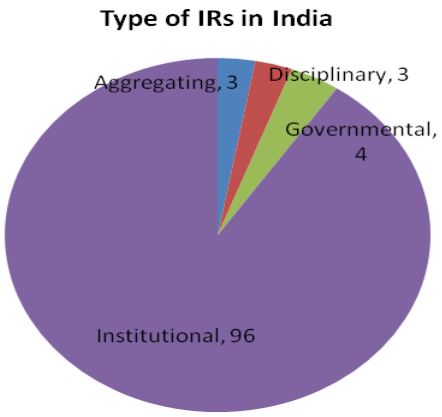

Fig.2 : Distribution of Type of IRs in LIS

The distribution of institutional repositories for each kind in India was shown in Table 2. The moderator categorized the different types of repositories under four sections. Out of 106 repositories, 96 (90.56%) are institutional repositories, 3 (2.83%) are disciplinary, 4 (3.77%) are governmental, and 3 (2.83%) are aggregating types. Therefore, it may be said that more than 90% of institutional repositories fall under this category.

Software-wise IRs in India

The Institutional repository uses different software such as DSpace, EPrints, Dspace-CRIS, Open Repository, Drupal, Greenstone and Others to build the repositories in India, as shown in table 3.

Table 3: Software Wise of IRs in India

Sl.No.	Software	No.of IR in %
1	DSpace	56%
2	EPrints	31%
3	Dspace-CRIS	1%
4	Open Repository	1%
6	Drupal	1%
7	Greenstone	1%
9	Others	9%

Total	**100%**

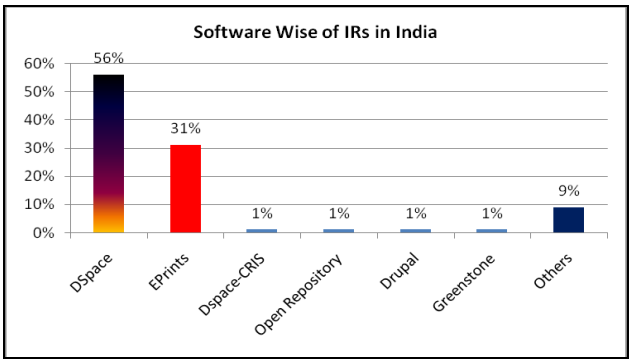

Fig.3. Software Wise of IRs in India

Table 2 compares the types of institutional repositories in India with a list of the software each uses. A total of 106 repositories were created; 56% were created using the DSpace software, 31% were created using EPrints for institutional repositories, and the other repositories were created using Dspace-CRIS, Open Repository, Drupal, Greenstone, and other tools. It should be mentioned that most repositories are produced solely utilizing DSpcae.

Subject of Content IRs in India

This study aims to find out the various subjects of content by different disciplines available in Institutional repositories in India, as shown in table 4.

Table 4: Subject of Content IRs in India

Sl.No.	Subject of Content	No.of IRs
1	Science	88
2	Technology	74
3	Social Science	66
4	Health and Medicine	65
5	Engineering	63
6	Arts	59
7	Humanities	58
8	Mathematices	58

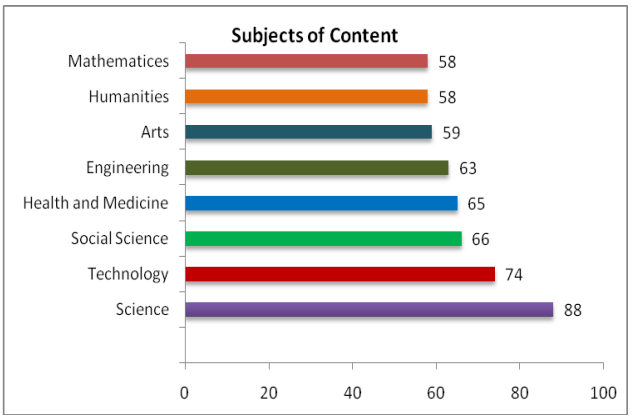

Fig.4. Subjects of content in IRs in India

Table 4 states the subjects of contents in institutional repositories in India which has been shown different subjects such as Science 88, Technology74,Social Science 66,Health and Medicine 65,Engineering 63,Arts ,59,Humanities 58 and Mathematics 58. So, it is concluded that the among the 106 repositories, almost the Indian repositories have all subjects for the benefit of academic environment.

Year wise added IRs in India

This study aims to find out the repositories in India year wise added in DOAR, which has been shown in table 5.

Table 5: Year-wise added IRs in India

Sl.No.	Year	Added IRs	Total
1	2005	2	2
2	2006	10	12
3	2007	7	19
4	2008	5	24
5	2009	4	28
6	2010	6	34
7	2011	11	45
8	2012	2	47
9	2013	13	60
10	2014	2	62
11	2015	9	71
12	2016	5	76
13	2017	4	79
14	2018	0	79
15	2019	11	90
16	2020	6	96
17	2021	6	102
18	2022	4	106

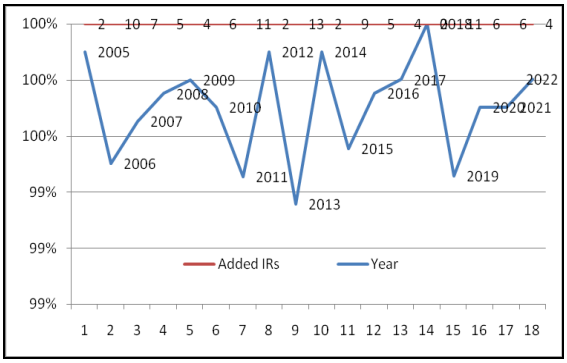

Fig.5. Year wise added IRs in India

The institutional repositories added and registered with the DOAR are listed yearly in Table 5. Two repositories were added to the 106 in 2005, and ten more in 2006. Additionally, 13 repositories were established in 2013, while none were added in 2018. Four repositories were added in 2022, it is mentioned.

9. CONCLUSION

The Educational institutions' repository mostly contains reports, journal articles, seminar papers, syllabus, question papers, etc. There are 106 library and information science repositories in the directory and the total 6029 repositories. To promote scholarly research from a particular university worldwide, assemble content in one place. To self-archive institutional research output in order to make it accessible. to save and store the digital assets of other institutions. Although repositories can serve several purposes, their primary function is the collection, management, preservation, and accessibility of vital research and instructional content. The repository system offers an ingest or submit service for accepting the digital files and some associated metadata, giving the digital item a usable access identifier, and adding it to a collection.

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