An Analytical study of Library and Information Science Repositories with particular reference to DOAR

Priya Bhushan
Librarian
Govt. Girls Sr.Sec.School,
Delhi, India
bhushan.priya83@gmail.com

Abstract

Organizations preserve their intellectual content in the form of repository so they can access by across the world. This paper presents the analytic study of repositories of library and information science. All the repositories are accessed through Directory of Open Access Repositories (DOAR) database. Total 2600 repositories are listed in DOAR database, in which the number of library and information science repository are 117. In this study repositories are analysed on various parameter such as countrywise distribution, Contientwise distribution, Language wise, types of repositories, Maximum number of records etc and found that Contient Europe hosted 45% repository and Central America have no repository. Country UK have highest 14% repository and more than 55% repositories are in English language as well as more than 35% institution use Dspace software for making repository.

Keywords: Open access repositories, DOAR, Library and Information Science

1. Introduction

Access to scientific information by open access is constitute a new trend. This open access help researchers, libraries and educational institutions to explore resources beyond their own collection. Sharing materials by open access help to maximum distribution, consistency and improving the quality of teaching and research. Authors who contribute their research through open access want their wider circulation, read and cited by others. It also help the author to quickly know the research impact of their publications through social media and altrametric tools. This open access literature may be in the form of repositiories or archives. For developing and maintaining IR many universities and research institutions are already initiated projects. The first initiative of making IR was taken by famous physics e-prints archive, known as arXiv, which is the called the precursor of the current institutional-repository movement (Lynch, 2003).

Now, organizations have taken responsibility for deposit the content, maintaining quality and authentication of materials. With the availability of open source software applications, enabling technology, development of dissemination standards for digital contents , the growth of IR are very faster today. OAI-PMH is also play a important role for developing a new institutional repository. It gives freedom to choose the platform for presenting the output of research. Today IR are used as a platform to preserve lectures,

symposia, scholarly publishing, notes etc. This paper present an analysis of library and information science repositories that are available on DOAR and show the research output by different type such as Country wise, Continent wise, Language wise, Software wise etc.

2. DOAR (Directory of Open Access Repositories)

Directory of Open Access Repositories is a service that provides access to quality controlled repositories. The Directory aims to be comprehensive and it covers many languages and subject areas. OpenDOAR is maintained by SHERPA Services, based at the Centre for Research Communications at the University of Nottingham.

3. Literature Review

In recent years, many researchers have conducted different study on directory of open access resources. Some studies in brief are mentions here. Melero, López & prats (2008) analyzed the Registry of Open Access Repositories (ROAR) and the Directory of Open Access Repositories (OpenDOAR).Thomas & McDonald (2007) provided a starting list of candidate sites for evaluation from OpenDOAR. Rosy Jan and Nadim Akhtar Khan(2010) have worked on development of disciplinary Repositories. Ali and Patil (2012) did study on comparative study of Dspace and Greenstone in DOAR.

4. Objectives of the Paper

1   To enumerate the open access repositories on LIS.

2   Identify the leading countries to developing repositories.

3   Know the leading language of repositories.

4   Identify the overall growth of OA repository.

5   Find the contient wise distribution of repository.

6   Know the frequency of open source software for making repository.

7   To find out range of records entered in the repository.

8   Determine the type of articles covered by repositories.

5. Analysis and Discussions

Total 2700 repositories are available in DOAR, in which library science repositories are 117. In this study repositories are analyzed on various parameter such as country wise distribution, Continent wise distribution, Language wise, types of repositories, Maximum number of records etc .

1. Contient wise distribution of Repositories

Open Access Repositories in library and information science are maintained by 47 different countries from 7 continents. Europe is the leading continent with highest 53 repositories followed by Asia (25) and North America (19). Central America have no repository in library science and Caribbean continent have only one repository.

Distribution of Repositories by Contient (Table 1and chart 1)

S.No.	Continent	No.	%
1	Africa	9	7.69
2	Asia	25	21.36
3	Australasia	4	3.41
4	Carribbean	1	0.85
5	Central America	0	0
6	Europe	53	45.29
7	North America	19	16.23
8	South America	6	5.12
9	Total	117	100%

Distribution of Repositories by Countrywise(Table 2 and chart 2)
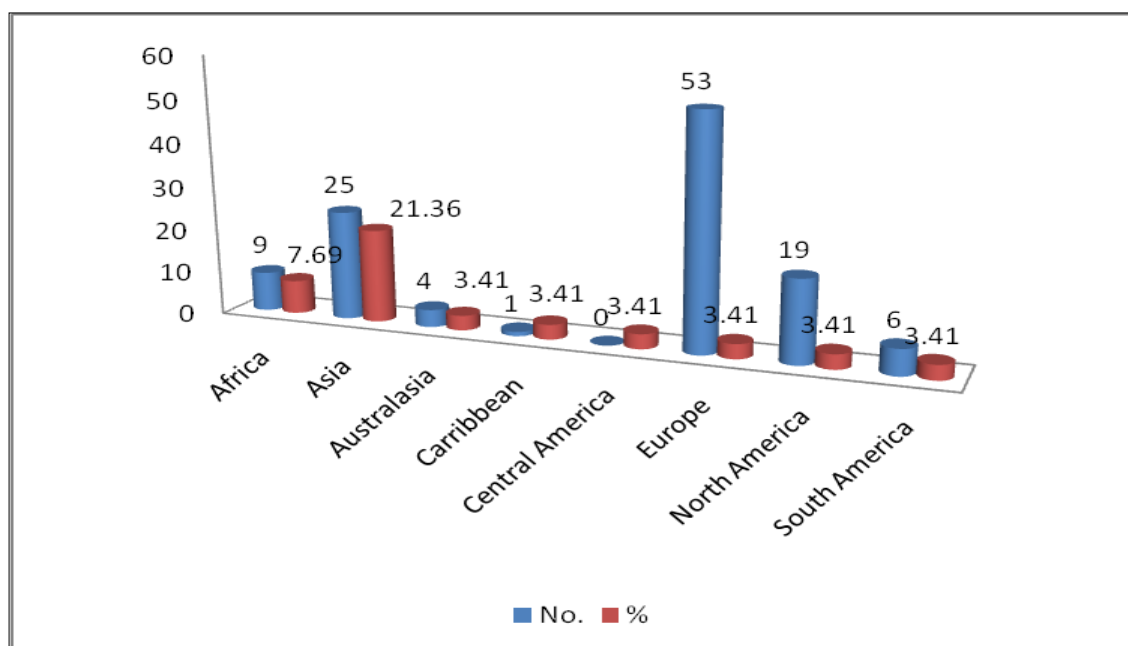
2. Country wise Distribution of OA Repositories

Table 2 shows that most of the countries have their repositories, in which US lead with 14(11.96%)repository, followed by UK and Germany with 11(9.40%) and 9(7.69%) respectively . India and France have only 5 repositories. Other 22 countries have only one repositoary.

Distribution of Repositories by Countrywise(Table 2 and chart 2)

S.No.	Name of countries	No.	%
1	US	14	11.96
2	UK	11	9.40
3	Germany	9	7.69
4	India	5	4.27
5	France	5	4.27
6	Japan	4	3.41

7	Ukraine		4	3.41
8	Brazil		4	3.41
9	Malaysia		3	2.56
10	Taiwan		3	2.56
11	Australia		3	2.56
12	Croatia		3	2.56
13	Canada		3	2.56
14	Each country have two repository (Nigeria, Tanzania , Bangladesh, China, Singapore, Czech Republic, Ireland, Italy, Spain, Portugal, Netherland, Mexico)	12×2= 24	1.70×2=3.4	
15	OtherCountries have only one repository (Egypt, Namibia, Sudan, Zimbabwe,IndonesiaKorea,Saudi Arabia ,Turkey,NewZealand, Dominican Republic ,Belarus ,Cyprus ,Finland, Hungary,Norway Poland ,Serbia ,Sweden ,Switzerland,Ecuador,Peru)	22	18.80	
	Total		117	100%
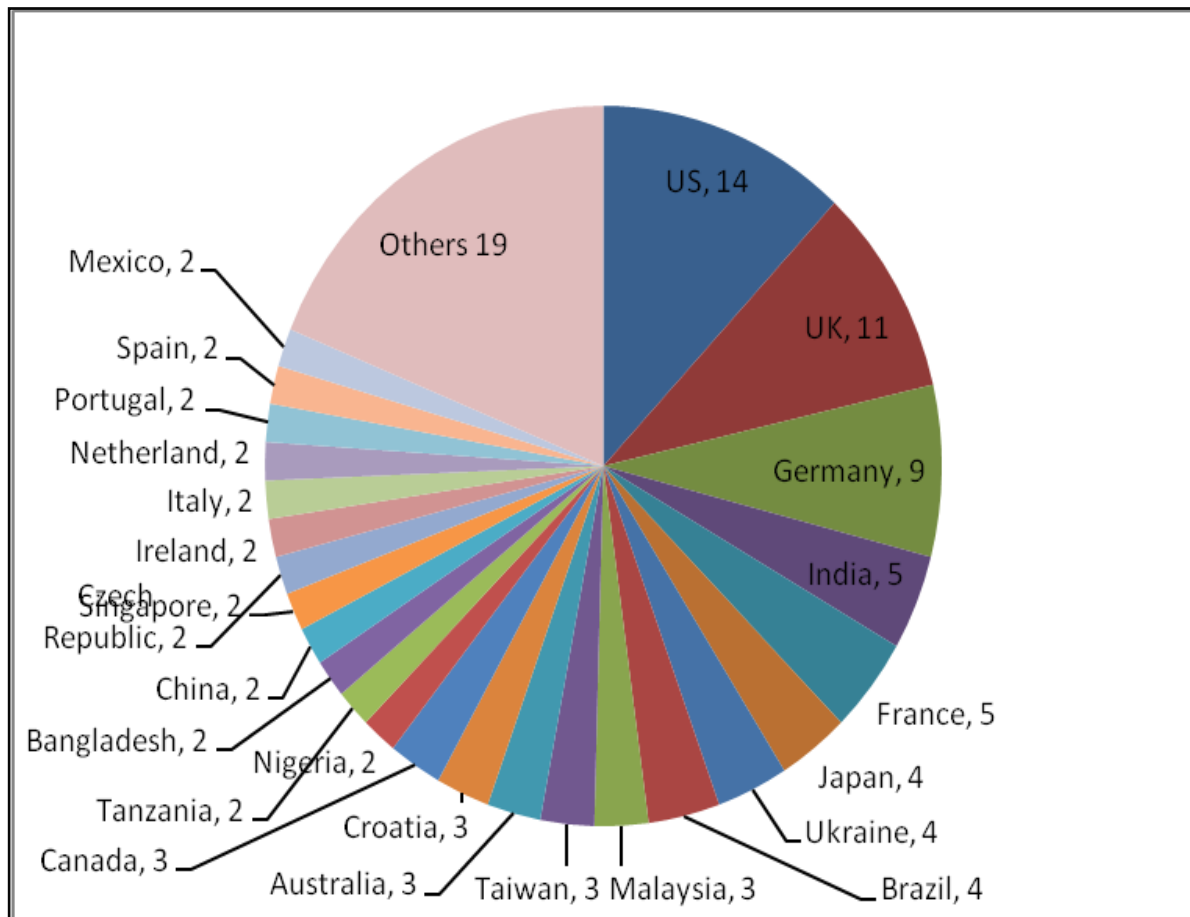
3. Language wise distribution of OA Repositories

        Table 3 shows that English is the most prominent language, which is used for making repositories. Out of 117 repositories 87 in English, 9 in German, 8 in Spanish language. This analysis show that 13 languages are those which have used only in one repository.

Table 3(Distribution of repositories by language wise)

S.No	Language	No	%
1	ENG	87	56.86
2	German	9	5.88
3	Spanish	8	5.22
4	Portuguese	6	3.92
5	Chines	5	3.26

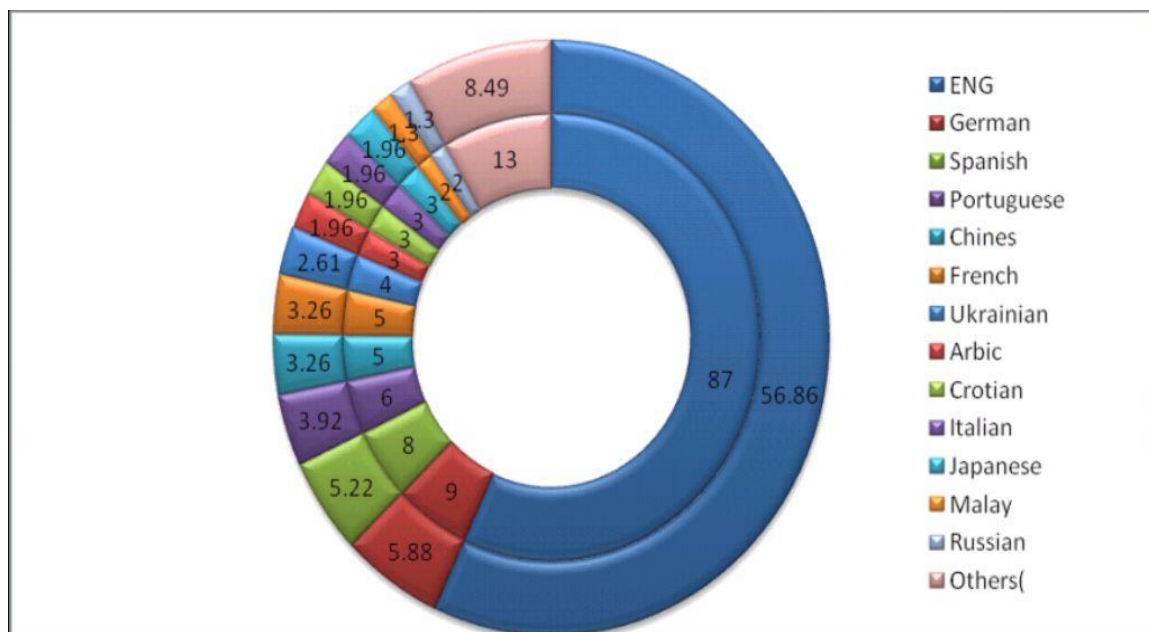| 6	French	5	3.26
7	Ukrainian	4	2.61
8	Arbic	3	1.96
9	Crotian	3	1.96
10	Italian	3	1.96
11	Japanese	3	1.96
12	Malay	2	1.30
13	Russian	2	1.30
14	Otherlanguages have only one repository(Czech,Dutch, Finnish Greek ,Hindi Hungarian Irish , Kannada, Korean, Latin, Polish Turkish,Welsh	13	8.49
	Total	153	100%

Chart 3(Languagewise distribution in %)

4. Software usage for making repositories

Table 4 shows that DSpace emerged as the most usable software which have higest percentage (39.68%). Out of 117 repositories and 153 language,Dspace is used by 50 repository while Eprint contributed in 31 repository.Digital Commons and OPUS have 7 (5.55%) and 5(3.96%) repositories respectively. 12 softwares used only in making one repository.

Table 4(Software wise distribution)

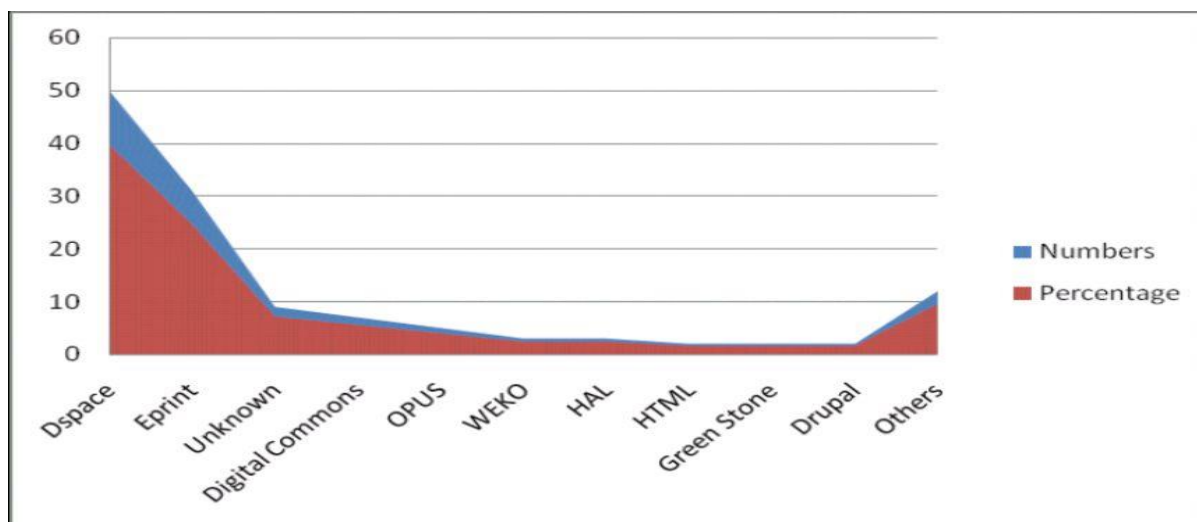| S.No	Name of Software	No	%
1	DSPACE	50	39.68
2	Eprint	31	24.60
3	Unknown	9	7.14
4	Digital Commons	7	5.55
5	OPUS	5	3.96
6	WEKO	3	2.38
7	HAL	3	2.38
8	HTML	2	1.58
9	Green Stone	2	1.58
10	Drupal	2	1.58
11	Others(XooNIps, OPEN REPOSITARY,OJS ,OAI Cat,My Co Re ,MARZ ,IR, Grunt Metaparser, Fedora, Digitool, DARE, Contentdm)	12	9.52
	Total	126	100%

Chart4 (Software wise distribution)

5. Number of records and range of records

Table 5(1) shows that highest number of records entered by france in his two repositories *Hyper Article en Ligne(1014552 records) and Hyper Article en Ligne - Sciences de l'Homme et de la (83107 records),* respectively . Third position got by *Queensland University of Technology ePrints Archive(*61446 records) of Australia followed by *Memoria digital de Canarias* (spain) , University of Arizona Campus Repository (US) respectively.

Table 5 (1) Number of records

S.No.	Repository name	Country	Num. Recs.	Software
1	Hyper Article en Ligne	France	1014552	HAL
2	Hyper Article en Ligne - Sciences de l'Homme et de la Société	France	83107	HAL
3	Queensland University of Technology ePrints Archive	Australia	61446	EPrints
4	Memoria digital de Canarias	Spain	48586	CONTENTdm
5	University of Arizona Campus Repository	United States	42812	Open
6	Bibliothèque numérique de l'enssib	France	41593	[Unknown]
7	edoc	Switzerland	36405	EPrints
8	MAnnheim DOCument Server	Germany	27865	EPrints
9	Institutional Repository of Peking University	China	27756	DSpace

10	ScholarBank@NUS	Singapore	27179	DSpace
11	Flinders Academic Commons	Australia	27113	DSpace
12	UniSA Research Archive	Australia	26855	DigiTool
13	Tampereen Yliopiston Väitöskirjat	Finland	24408	[Unknown]
14	Konstanzer Online-Publikations-System	Germany	24114	DSpace
15	Binus University Repository	Indonesia	21565	EPrints
16	Institutional Repository of Institute of Geographic Sciences and Natural Resources Research, CAS	China	19997	DSpace
17	E-LIS	Italy	17615	EPrints
18	Digital Library of the Czech Technical University in Prague	Czech Republic	17442	DSpace
19	Aberystwyth University Repository	United Kingdom	16141	DSpace
20	OZone provided by Ontario Scholars Portal	Canada	15283	DSpace

Table 5(2) shows that 15 repositories have more than 20,000 records and 44 repositories have below than 1000 records.

Table 5 (2) and chart 5 (2) shows the range of records

S.No.	Range	Number of repository
1	0-1000	44
2	1001-2000	17
3	2001-3000	5
4	3001-4000	7
5	4001-5000	5
6	5001-6000	4
7	6001-7000	1

| 8	7001-8000	1
9	8001-9000	2
10	9001-10000	2
11	10001-11000	1
12	11001-12000	1
13	12001-13000	0
14	13001-14000	2
15	14001-15000	3
16	15001-16000	3
17	16001-17000	1
18	17001-18000	2
19	18001-19000	0
20	19001-20000	1
21	Above 20000	15
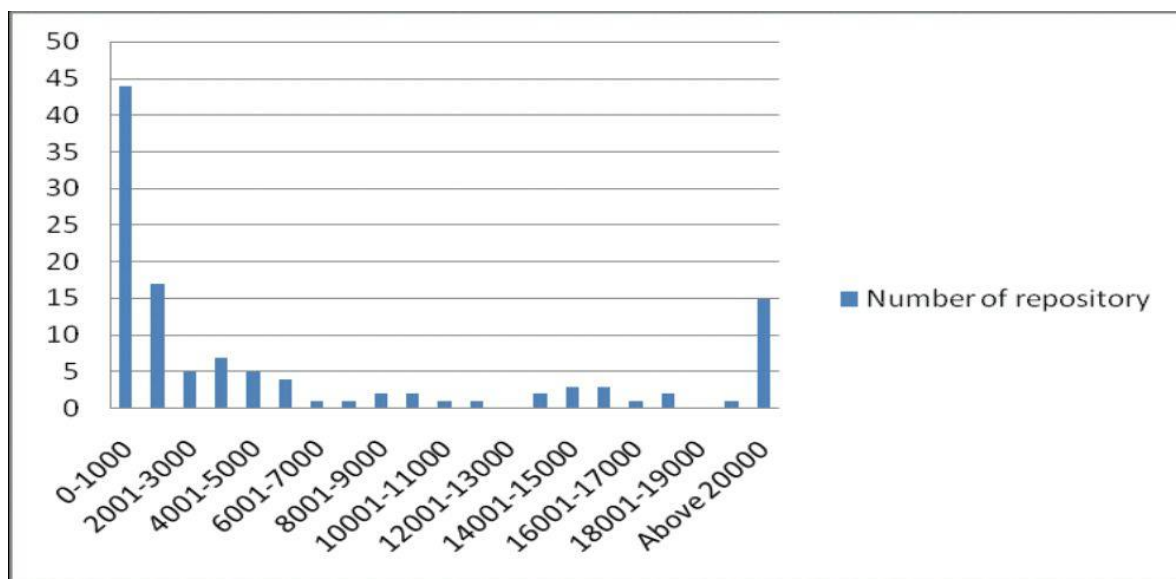
8. Type of repository

Table 8 shows that Out of 117 repository 95 are of institutional repositarory. 15 are disciplinary repositories and government repository are only 4.

Table 8(Type of Repository)

S.No.	Type of repository	No	%
1	Aggregating	3	2.56
2	Disciplinary	15	12.82
3	Government	4	3.41
4	Institutional	95	81.19
5	Total	117	100%
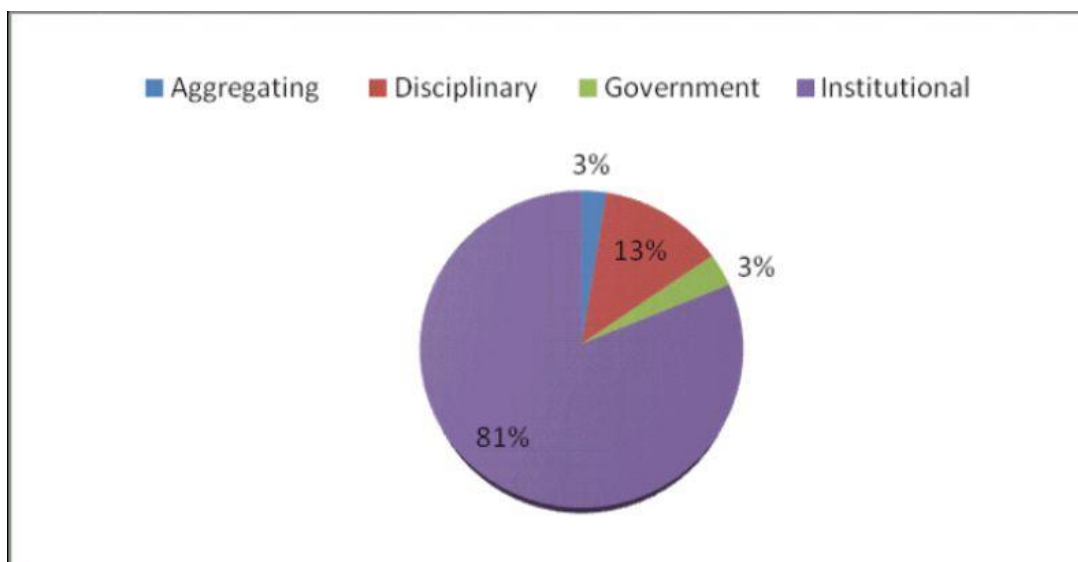
9.Findings

· Europe is the leading continent with highest 53 repositories.

· US have highest position with 14 repository.

· English is the most prominent language for repository.

· France got the first position to enter the records.

· Hyper Article en Ligne(1014552 records) entered highest records.

· Dspace is the most usable software for making repository.

· Out of 117 repository 95 repository are institutional repository.

References

1. Vyas,Jagdish R.(2013) , "Study of Indian Repositories on DOAR", International Research: Journal of Library & Information Science, Vol.3 No. 2,pp 324-339

2 . Jan,Rosy and Khan, Nadim Akhtar(2010), "Development of Disciplinary Repositories: A Case Study of Open DOAR", 7th Convention PLANNER, Tezpur University, Assam, February 18-20, 2010

3. Alam,Intekhab(2014) ,"Changing Role of Academic Librarians in Open Access Environment", *International Research:* Journal of Library & Information Science , Vol.4 No.4,pp 449-457.

4. Munshi, Usha Mujoo(2009) "Reshaping the World of Scholarly Communication : Open Access and the Free Online Scholarship Movement", Open Access to Textual and Multimedia Content :Bridging the Digital Divide, INFLIBNET Centre, Ahmedabad and CEC, New Delhi

5. Husain, Shabahat and Nazim, Mohammad (2013),"Analysis of Open Access Scholarly Journals in Media & Communication", DESIDOC Journal of Library & Information Technology, Vol. 33, No. 5, pp. 405-411

6. R , Jan and Khan, Nadim Akhtar (2010) ,"Development of Disciplinary Repositories: A Case Study of Open DOAR, th Convention PLANNER -2010, Tezpur University, . http://www.opendoar.org/(accessed on 15/8/2015)

8.Melero, Remedios ., López Medina, Alicia .,& prats, Jordi (2008), " Landscape of Open Access Institutional Repositories in Spain"(accessed on 15/8/2015)

9.Lynch, Clifford A. (2003), " Institutional Repositories: Essential Infrastructure For Scholarship In The Digital Age" portal: Libraries and the Academy, Vol.3 No.2, pages 327-336

10.Thomus, Chuck and   Mcdonald, Robert (2007). "Measuring and comparing participation patterns in digital repositories"http://repositories. clib.org (access on 15/8/2015)

Follow us on: IRJLIS, Facebook, Twitter