Study of Open Access Repositories Special Reference to Library & Information Science in Asia

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Abstract

Open access Institutional Repositories (IR) is providing institutional output's to worldwide. Various institutions are developing their own repositories, due to different benefits. DOAR is a metadata harvesting service provider which provides worldwide access of their repositories. At present total 3290 repositories were found on DOAR from all country on different subjects with 25,78,73,068 records. Various Asian countries have contributed to the development of institutional repositories. The present article has made an attempt to analyze the Library and Information Science Institutional Repositories available on DOAR specially contributed by Asian continent. Out of 125 Library and Information Science repositories worldwide, 26 repositories were found in Asia with 644516 records. The present study gives an overview of the growth and development of institutional repositories in Asia in the field of Library & Information Science with the data from the DOAR database

Keywords

Open Access Repository; Library and Information Science: Asia

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Introduction

The Open Access (OA) movement, especially the Open Access repositories, is going to set new standards for information sharing and management. The trend to set up OA repositories worldwide needs to be encouraged, particularly in the emerging world like Asia, which has every region to excel, given the strong ICT background and mushrooming of quality academic and research institutions with high research output. Thousands of OA have been developed over the last 15 years and are becoming an important means of disseminating research and knowledge resources. Open-access resources are scholarly resources that are available online to the reader without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. An OA Repositories is a web based database of scholarly material. OAR collects, stores, disseminates, digital resources and also preserves digital material for long term usage. A metadata harvesting service is harvest or indexes metadata from OAI- compliant archives or OAR through harvesting software that supports a protocol known as OAI-PMH. (Open Access Initiatives protocol for Metadata Harvesting). DOAR is an attempt to build and maintain metadata harvesting service for all OAIR (Open access Institutional Repositories) from the world.

Since the beginning of 21st Century, there has been a major increase in the number of digital libraries and repositories throughout the world. Open Access is a boon for the institutions, for the authors etc. that uses internet to disseminate various types of literature to the world free of cost. In the past, due to the absence of advanced Information and Communication Technologies, the scholarly literature published across the world was not accessible by the scholarly community throughout the world. The Open Access movement got a lot of importance and popularity after the Budapest Open Access Initiative (BOAI) in 2002.The Budapest Open Access Initiative (2002) defines Open Access as 'free availability on the public internet, permitting any users to read, download, copy, distribute and/or print, with the possibility to search or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself."

Reitz defines Open access repositories as "A digital archive created and maintained to provide universal and free access to information content in easily read electronic format as a means of facilitating research and scholarship." A prime example is *PubMed*.This paper has made an attempt to analyse available Open Access Repositories (OAR) of Asian Continent in the field of Library and Information Science (LIS). DOAR is a metadata harvesting service provider which provides access to open access repositories in the world. At present total 3290 repositories were found on DOAR from all country on different subjects with 25,78,73,068 records. Out of 3290, 125 repositories were found in the field of library science in worldwide. Out of 125 Library and Information Science repositories worldwide, 26 repositories were found in Asia with 644516 records. Analysis is presented on the basis of selected criteria like software used, size of items, content included, languages and policy used etc.

Directory of Open Access Repositories (DOAR)
DOAR provides a quality-assured listing of open access repositories around the world. DOAR staff harvest and assign metadata to allow categorization and analysis to assist the wider use and exploitation of repositories. DOAR is primarily a service to enhance and support the academic and research activities of the global community.

Research Objectives

The objectives of the present study are to find out the available databases and work of open access repositories in Asia in the field of Library & Information Science (LIS) in the following aspects:

- To study the Asian repositories available on DOAR for LIS.
- To explore the LIS Open Access Repositories (OARs) in the geographic contributions.
- To identify language diversity of Asian LIS Open Access Repositories.
- To identify the core content types of Asian LIS Open Access Repositories.
- To find out various software used for creation of Asian LIS Open Access Repositories.
- To discover the various types of LIS Open Access Repositories.
- To know record (items) presented in Asian LIS Open Access Repositories.
- To identify URL of Asian LIS Open Access Repositories.

Scope
Scope of present study is Asian Open Access Repositories in the field of Library and Information Science (LIS) found in DOAR was selected for study. Out of the 125 LIS Open Access Repositories identified in DOAR on 12 January 2017, a total of 26 were found in Asian contents. Access date of DOAR site is up to 12th January 2017. These 26 Open Access Repositories were studied according to the objectives of the study.

Research Methodology

Present study has used descriptive research method for analyzing data collected from DOAR website. (http://www.opendoar.org). On 12 January 2017, total 3290 repositories were found on DOAR from all country on different subjects. Out of 3290, 125 repositories were from for LIS in world wide. Out of 125 LIS Open Access Repositories 26 were found in Asia.

Data collection

The data for the present study was collected completely from the "Directory of Open Access Repositories popularly identified as DOAR (www.opendoar.org). specially for LIS open access repositories developed by Asian countries found in this URL i.e. http://www.opendoar.org/find.php

Analysis of Data and Interpretations

Present study has used tables and charts to analyze the data. Asian Library and Information Science DOAR contains 26 repositories, these are analyzed based on criteria like Geographical distribution, subject, language, core content, software used, type of IR and policies.

List of LIS Open Access Repositories in Asia

Detailed list of LIS Open Access Repositories in Asia with name, country and records available is as follows.

Table 1: Names of LIS Open Access Repositories in Asia

Sr. No.	Repository name	Country	Num. Recs.
1.	Institutional Repository of Peking University	China	413435
2.	ScholarBank@NUS	Singapore	101420
3.	Binus University Repository	Indonesia	23664
4.	Institutional Repository of Institute of Geographic Sciences and Natural Resources Research, CAS	China	22392
5.	Chaoyang University of Technology Institutional Repository	Taiwan	16928
6.	Institutional Knowledge at Singapore Management University	Singapore	14145
7.	UMS Institutional Repository	Malaysia	13097
8.	Seoul Metropolitan Library	Korea, Republic	10879
9.	International Centre for Diarrhoeal Disease Research Digital Repository, Bangladesh	Bangladesh	5659
10.	SHDL@MMU Digital Repository	Malaysia	5656
11.	Hsiuping Institute of Technology Institutional Repository	Taiwan	4966
12.	National Taipei University of Nursing and Health Sciences Repository	Taiwan	3781
13.	IR@NPL	India	1636
14.	INFLIBNET's Institutional Repository	India	1533
15.	Surugadai University Academic Information Repository	Japan	1257
16.	National Pingtung Institute of Commerce Institutional Repository	Taiwan	811
17.	Daffodil International University Institutional Digital Repository	Bangladesh	793
18.	Librarians' Digital Library	India	510
19.	Indian Institute of Petroleum Institutional Repository	India	454
20.	TUIS Academic Repository	Japan	420
21.	IPU Institutional Repository	Japan	360
22.	Türkiye Bilgi ve Belge Yönetimi Bölümleri Lisansüstü Tez Arşivi	Turkey	212
23.	MyManuskrip: Digital Library of Malay Manuscripts (Pustaka Digital Manskrip Melayu)	Malaysia	179
24.	The Digital repository of Information Science Department	Saudi Arabia	152
25.	Tama-Kura: Tama University	Japan	117
26.	dspace @ sdmcet	India	60
	Total -26 OAR in Asia for LIS	Total Recs.	644516

Table 1 shows complete list of 26 Open Access Repositories in Asia in the field of Library and Information Science. Maximum no. of items are uploaded by Institutional repository of Peking University, China i.e. 413435 items.

Library and Information Science (LIS) Open Access Repositories in Asia by Country-

Country wise distribution of LIS Open Access Repositories in Asia shows as follows.

Table 2: Country wise distribution of Asian LIS Open Access Repositories

Sr. No.	**Type**	**Count**
1.	India	5
2.	Taiwan	4
3.	Japan	4
4.	Malaysia	3

5.	Bangladesh	2
6.	Singapore	2
7.	China	2
8.	Korea, Republic of	1
9.	Saudi Arabia	1
10	Turkey	1
11	Indonesia	1
		26

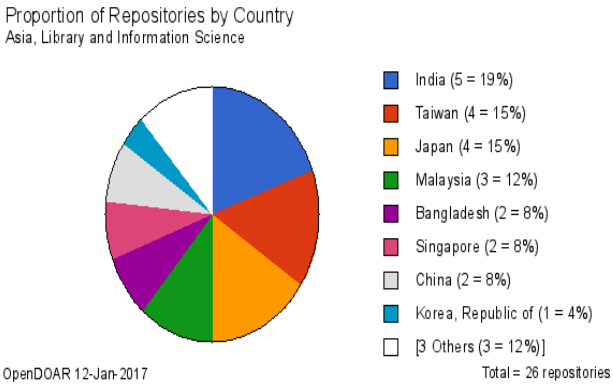


Figure 1 Country wise distribution of Asian LIS Open Access Repositories

Out of the total 26 open access repositories contributed by Asian countries in the field of Library & Information Science, India ranks first by having 5 (19%) Open Access Repositories having covering Library & information Science Contents, followed by Taiwan and Japan 4 (15%) and Malaysia 3(12%).

Growth and development of LIS OAR in Asia

Library and Information Science Open Access Repositories shows as follows.

Table 3: Growth and development of 12 years LIS OAR in Asia

Sr. No.	Years	OAR
1.	1.1.2006	1
2.	1.1.2007	1
3.	1.1.2008	4
4.	1.1.2009	4
5.	1.1.2010	4
6.	1.1.2011	8
7.	1.1.2012	13
8.	1.1.2013	13
9.	1.1.2014	21
10.	1.1.2015	21
11.	1.1.2016	25
12.	1.1.2017	26

Table 3 revealed that the growth of LIS OAR in Asia in last 12 years. It is shows that 26 repositories were added to DOAJ during 1.1.2006 to 1.1.2017. In the year 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017, only 1, 1, 4, 4, 4, 8, 13, 13, 21, 21, 25 and 26 OAR were added to DOAJ respectively in the field of LIS form Asia. Growth and development found increasing yearly. Number of increase found in 2014.

LIS Open Access Repositories in Asia by Language

Asia. However, use of other national languages and, in some cases, even regional languages helps in making an open access repository more popular among the research community of a particular region or country, ensuring maximum utilization of the repository holdings. There are many repositories that use more than one language as an interface. Table 5 and figure no. 3 shows the detailed representation of languages used in the open access repositories in Asia for the field of LIS.

Table 5: Language wise distribution of LIS OAR in Asia

Sr. No.	**Type**	**Count**
1.	English	22
2.	Chinese	6
3.	Japanese	3
4.	Malay	2
5.	Kannada	1
6.	Korean	1
7.	Hindi	1
8.	Arabic	1
9.	Turkish	1
		38

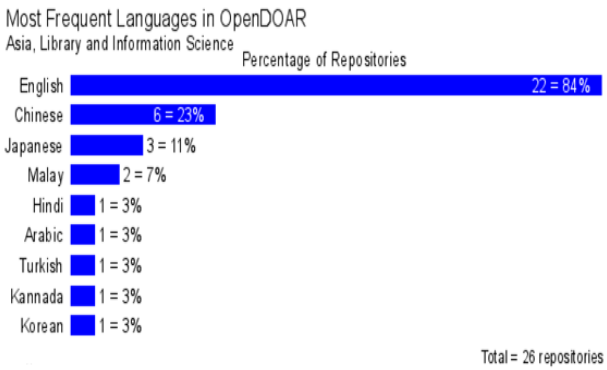


Figure 2 Language wise distribution of LIS OAR in Asia

Above table and figure shows that language wise explanation of the open access repositories in the subject of Library and Information Science in Asia. It depicts that 84% of the OAR are published in English language. The Chanies employ second position with 23% whereas; Japanies and Malay put in third and fourth position with 11% and 7% respectively. Other Hindi, Arabic, Turkish, Kannada and Korean language has found 3% respectively. English is the most preferred one for the open access repositories in Asia for LIS.

Open Access Repositories in Asia by Core Content Type

A detailed view of the core content type is shown in Table 5 and Figure No.3.

Table 6: Open Access Repositories in Asia by Core Content Type

Sr. No.	Type	Count
1.	Journal articles	18
2.	Theses and dissertations	15
3.	Books, chapters and sections	10
4.	Conference and workshop papers	10
5.	Unpublished reports and working papers	9
6.	Multimedia and audio-visual materials	6
7.	Bibliographic references	5
8.	Learning Objects	3
9.	Patents	2
10.	Other special item types	1
11.	Total	79

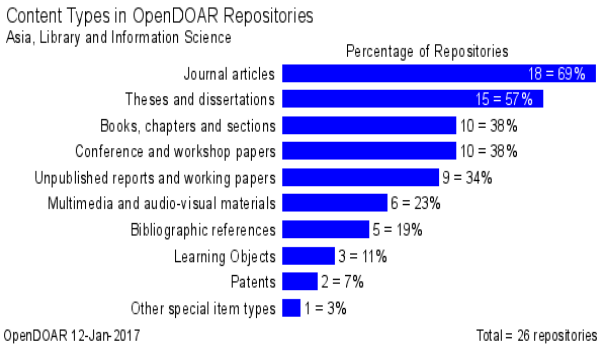


Figure 3: Open Access Repositories in Asia by Core Content Type

Table No. 5 and Figure No. 4 shows that core content types of Asian Library and Information Science open Access Repository. It reveals that Journal are 69%, Thesis and Dissertation 57%, Books, chapters and sections and Conference and workshop papers found 38% respectively, Unpublished reports and working papers 34%, Multimedia and audio-visual materials 23%, Bibliographic references19%, Learning Objects 11%, Patents 7%, Other special item types found 3%.

Use of software's for Asian LIS Open Access Repositories-

Asian Library and Information Science Open Access Repositories are using seven software's, these are DSpace, EPrints, WEKO, Greenstone, Digital Commons, MARZ content management system, XooNIps. Ability to recognize and manage a large number of file formats and represent types makes DSpace the widely used open source software. A detailed representation is as follows.

Table 6: LIS OAR in Asia by software

Sr. No.	Type	Count
1.	DSpace	15
2.	EPrints	4
3.	WEKO	3
4.	Greenstone	1
5.	Digital Commons	1
6.	MARZ content management system	1
7.	XooNIps	1

		26

Table 6 shows that software are used for Asian LIS OAR. Dspace software is used by 58% followed by Eprints software of 15% in OAR. WEKO is used by 12%, Greenstone, Digital Commons MARZ content management system and XooNlps software's used by only one OAR respectively. It is observed that Dspace and Eprints are most common software used for IRR.

LIS Open Access Repositories in Asia by Type-

OAR has four type of repositories these are Undetermined- A repository whose type has not yet been assessed, Institutional- An institutional or departmental repository, Disciplinary-A cross-institutional subject repository, Aggregating-An archive aggregating data from several subsidiary repositories, Governmental-A repository for governmental data. Type used for Asian LIS Open Access Repository shows as follows.

Table 7: Open Access Repositories in Asia by Type

Sr. NO.	Type	Count
1.	Institutional	22
2.	Disciplinary	4
3.	Aggregating	0
4.	Governmental	0
	Total = 26 repositories	26
	Total = 26 repositories	

Out of total 26 open access LIS repositories, 22 are using institutional and 4 are using disciplinary. None of the open access repositories are hosted by any governmental organizations or any aggregating institution.

Findings

1. Open access repositories for Library and information science in Asia were found 26.
2. Maximum no. of items are uploaded by Institutional repository of Peking University, China i.e. 413435 items.
3. India is first ranks of library and information OAR having 19%.
4. Growth and development found increasing yearly. Maximum increasing growth of Asian LIS Open Access Repository found during year 2012 to 2016 .
5. English is the most preferred language for the open access repositories in Asia for LIS.
6. Core content published as information source in Journal that is 69%, Thesis and Dissertation 57%, Books, chapters and sections and Conference and workshop papers found 38% in Asian LIS Open Access Repositories.
7. It is observed that Dspace and Eprints are most common software used for IRR .
8. Out of 26, 22 (85%) LIS OAR used institutional type.

Conclusion

The open access movement has reformed the information accessibility and its usage. It is achieving more and more attention now a day. The outcome of the present study brings to light that 26 available Open Access Repository in Asia for subject of LIS. The above statistics on the growth and diversity of open access repositories in Asia in the field of Library & information Science show that throughout the world people are trying to disseminate their research work or institutional holdings with the help of Internet to a large group of people.

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