OPEN ACCESS REPOSITORIES: THE ASIAN SCENARIO WITH SPECIAL REFERENCE TO LIBRARY & INFORMATION SCIENCE

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Abstract:
Higher education institutions all over the world are experiencing the necessity of managing their education, research and resources in a more effective way. Open access Institutional Repositories(IR) are the best way through which the institutional outputs will open up to the world, IR helps in maximising the visibility and impact of these outputs as a result enabling and encouraging interdisciplinary approaches to research. Due to various benefits of institutional repositories, various institutions are developing their own repositories. Various Asian countries have contributed to the development of institutional repositories. 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 OpenDOAR database.

Keywords: Open access initiatives, Institutional Repositories, OpenDOAR, Library & Information Science, Asia.

I. INTRODUCTION:

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."

II. LITERATURE REVIEW:

Beena & Archana (2011) describe the real time experience of managing and sharing of intellectual wealth of academia of Cochin University of Science & Technology (CUSAT) by using open source platforms. The researchers found that various open

access tools such as DSpace, Bibapp, MENDELEY, Zotero are used for managing the intellectual informatics.

Thaker & Oza (2010) state Institutional Repository (IR) as an indispensable tool for knowledge management process. IRs re-establishes Dr.S.R.Ranganathans' philosophy of knowledge generation, evaluation and utilization especially of nascent micro thoughts and its mechanism in contemporary digital arena.

Rajashekhar (2004) discussed two components of open access publishing in Indian context. The first focuses on the relevance of Open access publishing in developing countries, the potential for open access publishing in India and few current open access initiatives in India. The second component proposes a possible technical model to organize open access publishing in India.

Wani, Gul & Rah (2009) threw light on the growth and development of open access repositories throughout the world. The study further emphasizes deeply into the Asian contributions and brings to light detailed profiles of Asia.

Wang and Su (2007) state that although Open Access started with developed countries, it is appealing to developing countries and is spreading throughout the world quickly.

Brown and Abbas (2010) in their research throw light on the increasing number of institutions across United States that are actively creating IRs and an array of field specific online collections especially in the biological sciences.

Krishnamurthy and Kemparaju (2011) reported a study of Institutional Repositories in use in Indian Universities and research institutes. The 20 repositories studied covered collections of diverse types. Most of the IRs investigated operate on a UNIX/Linux operating system platform. While the elite institutions such as the IISc, the IITs and a few elite universities have been quick to build IRs, a very large number of universities, especially the state universities, colleges and institutions of higher education, have yet to initiate any major action in building IRs. According to the researchers, India still seems to be far behind tapping into, and making effective use of, existing IR technologies.

Lihitkar and Agashe presented the Indian scenario in developing IRs. Total 33 Institutional Repositories were identified which were analysed based on selected study criteria like software used, size of the items, contents included, languages, description and country.

Tonta (2008) reviewed the current situation of institutional repositories in Europe and chronicled the development of institutional repositories in Turkey. The researcher has recommended that awareness of faculty members towards Open Access and IRs should be increased. Research grants offered should enforce open access for research papers funded by taxpayers. The contents of those repositories should be organized according to the established standards (e.g., OAI-PMH and Open URL) so that they can be harvestable by search engine crawlers, thereby increasing the overall visibility of research carried out by the Turkish scholars.

III. RESEARCH OBJECTIVES:

The objectives of the current study are to discover the composition and built of open access repositories in Asia in the field of Library & Information Science (LIS) in the following aspects:

- To explore the geographic contributions of LIS Open Access Repositories (OARs).
- To identify the other subjects covered by Library & Information Science Open Access Repositories.
- To identify language diversity.
- To identify the core content types.
- To determine various software used for creation of OARs.
- To identify the various types of OARs.

IV. SCOPE:

The data for the present study was collected exclusively from the "Directory of Open Access Repositories", popularly known as OpenDOAR (www.opendoar.org) on Open Access Repositories developed by Asian countries.

Out of the 388 Asian Open Access Repositories identified in OpenDOAR during the period October 25-November 7, 2012, a total of 13 (Appendix-I) were found covering Library and Information Science related contents. These 13 were studied according to the objectives of the study.

V. FINDINGS AND DISCUSSIONS:

a) Open Access Repositories in Asia by Country-

Of the total 13 open access repositories contributed by Asian countries in the field of Library & Information Science, India ranks first by having 4 Open Access Repositories having covering Library & information Science Contents, followed by Taiwan (3) and Malaysia (2). A detailed representation is given below in Table 1.

Table 1: Distribution of Open Access Repositories in LIS in Asia

Sr.No.	Name	Number
1	India	4
2	Taiwan	3
3	Malaysia	2
4	Indonesia	1
5	Singapore	1
6	China	1
7	Bangladesh	1
	Total	**13**

b) Asian OARs Distribution by Subjects Covered-

Of the 13 Asian Open Access Repositories covering Library & Information Science contents, only one repository (Librarians' Digital Library) is completely dedicated to Library & Information Science. The remaining 12 contain other subjects too. A detailed view of the collected data is shown in Table 2.

Table 2: Asian OARs by Subjects Covered

Sr.No.	Name	Number
1	Multidisciplinary	1
2	Technology General	5
3	Chemistry	2
4	Science General	2
5	Health & Medicine	1
6	Chemical Technology	2
7	Physics & Astronomy	1
8	Agriculture	1
9	Food & Veterinary	1
10	Ecology & Environment	1
11	Computers & IT	5
12	Business and Economics	5
13	Mechanical Engineering	2
14	Arts & Humanities	1
15	Biology & Biochemistry	2
16	Social Science	3
17	Geography & Regional Studies	1
18	Language & Literature	3
19	Mathematics & Statistics	1
20	Education	3
21	Law & Politics	2
22	Management & Planning	7
23	History & Archaeology	1
24	Electronic & Electrical Engineering	2
25	Psychology	1
26	Civil Engineering	2

c) Open Access Repositories in Asia by Language-

English, being an international language, is the most preferred one for the open access repositories in 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 3 shows the detailed representation of languages used in the open access repositories in Asia.

Table 3: Open Access Repositories in Asia by Language

Sr.No.	Language	Number
1	English	12
2	Chinese	4
3	Malay	2
4	Hindi	1
5	Kannada	1

d) Open Access Repositories in Asia by Core Content Type-

Of the 13 Asian Open Access Repositories covering Library & Information Science, 10 have Articles Collection, followed by Books (8) and Theses (7). The least covered content type is patents. A detailed view of the collected data is shown in Table 4.

Table 4: Open Access Repositories in Asia by Core Content Type

Sr.No.	Content Type	Number
1	Articles	10
2	Books	8
3	Theses	7
4	Conference Papers	6
5	Unpublished	5
6	References	4
7	Multimedia	3
8	Special	2
9	Learning Objects	1
10	Patents	1

e) Open Access Repositories in Asia by Software Type-

Four open source software are used by the host organizations or institutions to create e-thesis repositories. 9 open access repositories in Asia use DSpace. Ability to recognize and manage a large number of file formats and mime types makes DSpace the widely used open source software. A detailed representation is as follows:

Table 5: OARs in Asia by Software

Sr.No.	Name	Number
1	DSpace	9
2	Eprints	2
3	Greenstone	1
4	Digital Commons	1

f) Open Access Repositories in Asia by Type-

Of the total of 13 open access repositories, 11 are institutional and 2 are disciplinary. None of the open access repositories are hosted by any governmental organizations or any aggregating institution.

Table 6: Open Access Repositories in Asia by Type

Sr.No.	Repository Type	Number
1	Institutional	11
2	Disciplinary	2
3	Aggregated	0
4	Governmental	0
	Total	**13**

VI. CONCLUSION:

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. Still, the number is very few.

Library & Information Science, being one of the oldest subjects must have more coverage among the institutional repositories at least through the universities and institutions in which the subject is taught.

The 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 reason to excel, given the strong ICT background and mushrooming of quality academic and research institutions with high research output.

APPENDIX-I: LIST OF ASIAN OPEN ACCESS REPOSITORIES IN LIBRARY & INFORMATION SCIENCE

Sr.No.	Name	URL
1	Faculty of Computer Science and Information Technology, University of Malaya **MyManuskrip: Digital Library of Malay Manuscripts (Pustaka Digital Manskrip Melayu)**	http://mymanuskrip.fsktm.um.edu.my/ Greenstone/cgi-bin/library.exe
2	**Binus University Repository**	http://eprints.binus.ac.id/
3	**Chaoyang University of Technology Institutional Repository (CYUTIR)**	http://ir.lib.cyut.edu.tw:8080/
4	SDM College Of Engineering and Technology Dharwad **dspace @ sdmcet**	http://210.212.198.149:8080/jspui
5	ICFAI Business School **Dspace@IBSA**	http://202.131.96.59:8080/dspace
6	Hsiuping Institute of Technology Institutional Repository **(HITIR)**	http://ir.hust.edu.tw/
7	Indian Institute of Petroleum Institutional Repository	http://library.iip.res.in:8080/dspace/
8	InK **(Institutional Knowledge at Singapore Management University)**	http://ink.library.smu.edu.sg/
9	Institutional Repository of Institute of Geographic Sciences and Natural Resources Research, CAS **(IGSNRR OpenIR)**	http://159.226.115.200/
10	International Centre for Diarrhoeal Disease Research Digital Repository, Bangladesh **(ICDDR,B)**	http://dspace.icddrb.org/dspace/
11	Documentation Research and Training Centre (DRTC), Indian Statistical Institute, Bangalore Centre (ISI), **Librarians' Digital Library (LDL)**	https://drtc.isibang.ac.in/
12	**National Pingtung Institute of Commerce Institutional Repository**	http://irs.lib.ksu.edu.tw/NPIC/
13	Multimedia University **SHDL@MMU Digital Repository**	http://shdl.mmu.edu.my/

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