

A comparative study of India and Australia open access repositories in open DOAR

Alekha Karadia^{1*}, Jyotshna Sahoo²

¹Research Scholar, ²Associate Professor, Dept. of Library & Information Science, Khallikote University, Berhampur, Ganjam, Odisha, India

*Corresponding Author: Alekha Karadia

Email: alekh98@gmail.com

Abstract

An open access repository or open archive is a digital platform that holds research output and provides free, immediate and permanent access to research results for anyone to use, download and distribute. To facilitate open access such repositories must be interoperable according to the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). Search engines harvest the content of open access repositories, constructing a database of worldwide, free of charge available research. OpenDOAR is the quality-assured, global Directory of Open Access Repositories. Its repositories provide free, open access to academic outputs and resources. This paper deals with Comparative analysis of India and Australia repositories listed in OpenDOAR in terms of their growth, type, operational status, content type, software, subject coverage, language and policies regarding content, submission, and preservation.

Keywords: Digital Repositories, Institutional Repositories, Open Access, OpenDOAR.

Introduction

Digital world to change the modes of Research scholarly communication. Digital Platform provides opportunity for the research scholars to work collaborative and effective ways to access resources and services. Growth of information Research scholars faces many problems and challenges to manage scholarly contents. Now days, Open Access Repositories create a platform online access to the all intellectual output of a particular organization.

Therefore institutional repositories are greater than ever day by day all over globe. Various organizations and institutions needs to be preserved, organized and disseminated their intellectual output. So, this is one of important reason for establishing an institutional repository in academic libraries and other government Organization. Open access repositories are the digital archives of scholarly literature deposited by their authors and it is called self-archiving. These are established and managed to provide universal and free access to information in electronic format to increase and disseminate research output. (Verma & Shukla, 2015).

What is Open Access?

There are many ways to define open access, but here is the definition given by the Budapest Open Access Initiative: "By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, 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. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited." (Graduate Institute Geneva, n.d)

1. **Gold Open Access** refers to OA delivered by journals. Some journals ask authors to pay a publication fee called APC (article-processing charge). Journals who do not charge any APC are sometimes called "platinum" Open Access.
2. **Green Open Access** or self-archiving refers to OA delivered by disciplinary or institutional repositories.
3. **Bronze Open Access** is used for articles that are made free to read on the publisher's website only without an explicit open license, and could, therefore, lose their OA status later.

Review of Literature

Anil Kumar and Kaur Manpreet (2020) the study explain Indian contribution towards the Open Access Repositories (OpenDOAR), which archives books, theses, journal articles, monographs, patents, learning objects, and unpublished papers since 2005-2019.

Maharana Bulu and Chakrabarti Abhijit (2019) the study presents Open Access Repositories in Library and Information Science available in OpenDOAR and evaluate the generic and technical features of them as per items, language, country, repository type, content, software, operational status, etc. open access digital repositories in the field of Library and Information Science available in OpenDOAR are indexed in English language and some of them are bilingual. It is also observed that open source softwares like Eprints and Dspace have been exploited in a large scale to create open access digital repositories in the field of Library and information Science indexed in OpenDOAR.

Mohammad Azim & Nabi Hasan (2018). The study presents an analysis and explores the Indian repositories who have registered in the OpenDOAR and allows to access and download their data through OpenDOAR platform. The study also highlights the contributing Universities/Institutions and about the different types of software used to create their repositories.

Sing, KP & Vanita Khanchandani (2015) Study explores the of Indian contribution to Open Access Scholarly Publishing in Science and Technology indexed in DOAJ. The research highlights the various dimensions related to the open access scholarly communication in S&T such as chronological growth, publisher-wise and subject-wise contributions, etc.

Objectives of the study

1. To find the India and Australia month and year growth of OA repositories registered at OpenDOAR and which country highest registered.
2. To identify the India and Australia types of repositories registered at OpenDOAR.
3. To assess India and Australia subject wise all the OA repositories registered at OpenDOAR.
4. To find the India and Australia most popular software platform used in OA Repositories registered at OpenDOAR.
5. To identify India and Australia the most commonly used language of content in such repositories registered at OpenDOAR.

Scope of the study

After browsing the URL (<https://v2.sherpa.ac.uk/opendoar/>) of the Directory of Open Access Repository (OpenDOAR), India and Australia have been retrieved and as per the objective of this study, India (98) and Australia (90) Open Access repositories have been selected to evaluate them. The study is limited to only Indian and Australia Open access Repository in the Directory of Open Access Repositories (OpenDOAR).

Methodology

The study is based on collected data from OpenDOAR as on 06 June 2021. The collected data were carefully analyze and investigated on selected parameters like year-wise growth, use of IR software's, open access repositories types, content's languages, subjectwise India and Australia open access repositories.

Analysis and Interpretation of Results

Table 1: India and Australia type of organization open access repositories

Type of Organization	India	Australia
Aggregating	05	00
Institutional	84	79
Disciplinary	08	07
Governmental	01	04
	Total = 98	Total = 90

Table 1 show that majority of 84 Indian Open access Repositories and majority of 79 Australia Open access Repositories are Institutional and 08 Indian Open access Repositories 07 Australia Open access Repositories are Disciplinary, 04 Indian Open access Repositories and 00

Australia Open access Repositories are Aggregating and 01 Indian Open access Repositories and 04 Australia Open access Repositories are Governmental. Graph shows that Indian and Australia Open access Repositories are Institutional much more interested open Access Repositories, India and Australia Govt. Organization also registration in OpenDOAR. As compare to Australia Govt. organization India less then interested to registration OpenDOAR.

Table 2: India and Australia Open access Repositories Language of Content

Language of Content	India	Australia
English	96	90
Hindi	11	0
Marathi	4	0
Gujurati	3	0
Arabic	2	0
Kannada	2	0
Malayalam	2	0
Bengali	1	0
Other	3	0
German	0	1
Spanish	0	1
Croatian	0	1
Chinese	0	1

Table 2 This table shows the English Language is highest Content upload both India (96) and Australia (90) Open Access Repository. India Open Access Repository has Language of Content like Hindi Marathi Gujurati Arabic Kannada Malayalam Bengali,other and other hand Australia Open Access Repository has Language of Content like German, Spanish,Croatian,Chinese.

Table 3: India and Australia Software Platforms used for Open access Repositories

Software Platforms	Australia	India
Dspace	21 (22%)	56 (56%)
E-prints	12(12%)	33(33%)
VITAL	7(7%)	0(0%)
Fez	4(4%)	0(0%)
Digital Commons	3(3%)	0(0%)
DigiTool	3(3%)	0(0%)
Equella	3(3%)	0(0%)
Pure	3(3%)	0(0%)
Drupal	2 (2%)	1(1%)
Other	40 (41%)	9(9%)
Greenstone	0(0%)	1(1%)
Total	100%	100%

Table 3 This table and graph show that number of organization both India (56%) and Australia (22%) developing Open access Repository through Dspace Open Sources Software, and also e-Print used for Open access Repository India (33%) and Australia (12%) Registered in

OpenDOAR. India Used for Open access Repository software like Drupal, Greenstone, other and Australia Used for Open Access Repository software like VITAL, Fez, Digital Commons, DigiTool, Equella, Pure, Drupal, other. As Compared to India, Australia has more variety of software used for open access Repository.

Table 4: Growth of India and Australia open access repositories in OpenDOAR.

Growth of OpenDOAR	India	Australia
December 2005	2	6
August 2006	11	16
April 2007	12	41
December 2007	19	41
August 2008	22	48
April 2009	27	53
December 2009	28	54
August 2010	32	55
April 2011	38	57
December 2011	45	58
August 2012	47	59
April 2013	48	61
December 2013	60	62
August 2014	62	67
April 2015	67	68
December 2015	71	69
August 2016	73	71
April 2017	76	72
December 2017	79	73
August 2018	79	73
April 2019	84	78
December 2019	60	89
August 2020	93	90
May 2021	98	90

Table 4 shows month and Year growth of India and Australia open access repositories in OpenDOAR. The study reveals that there are total 98 from India and 90 from Australia, May 2021. The study shows compare Australia more Awareness about registration OpenDOAR but India has highest registration Open Access Repository year of 2021.

Table 5: Subject of Content India and Australia open access repositories in OpenDOAR

Subject of Content	India	Australia
Multidisciplinary	49	65
Technology General	13	2
Health and Medicine	12	10
Mechanical Engineering and Materials	10	0
Computer and IT	9	2
Biology and Biochemistry	9	2
Science general	8	4
Physics and Astronomy	8	1
Electrical and Electronic Engineering	7	0

Agriculture, Food and Veterinary	7	3
Library and Information Science	6	4
Ecology and Environment	6	2
Civil Engineering	5	1
Mathematics and Statistics	5	1
Earth and Planetary Science	4	0
Social Science General	3	2
Management and Planning	3	4
Arts and Humanities General	2	5
Business and Economics	2	6
Psychology	2	1
Architecture	1	1
Language and Literature	1	4
Education	1	8
Law and politics	1	5
Fine and Performing	0	7
Geography and Regional studies	0	5
History and Archaeology	0	4
Philosophy and Religion	0	4
Chemistry and Chemical technology	0	1

Table 5 Reveals that a large number India (49) and Australia (65) of Open Access repository are Multidisciplinary, India (12) and Australia (10) of Open Access repository are related to Health and Medicine and India (13) and Australia (2) of Open Access Repository are related to Technology General. India and Australia Open Access Repository are related to others subjects like Mechanical Engineering and Materials, Computer and IT, Biology and Biochemistry, Science general, Physics and Astronomy, Electrical and Electronic Engineering, Agriculture, Food and Veterinary, Library and Information Science, Ecology and Environment, Civil Engineering, Mathematics and Statistics, Earth and Planetary Science, Social Science, General, Economics, Psychology, Architecture, Language and Literature, Education, Law and politics, Fine and Performing, Geography and Regional studies, History and Archaeology, Philosophy and Religion, Chemistry and Chemical technology Management and Planning, Arts and Humanities General, Business .

Findings

1. Growth of India and Australia open access repositories in OpenDOAR. The study reveals that there are total 98 from India and 90 from Australia, May 2021. The study shows compare Australia more Awareness about registration OpenDOAR but India has highest registration Open Access Repository year of 2021.
2. Indian and Australia Open access Repositories are Institutional much more interested open Access Repositories, India and Australia Govt. Organization
3. Large number India and Australia of Open Access repository are Multidisciplinary, India and Australia of Open Access repository are related to Health and

Medicine and India and Australia of Open Access Repository are related to Technology General.

4. India (56%) and Australia (22%) developing Open access Repository through Dspace Open Sources Software, and also e-Print used for Open access Repository India (33%) and Australia (12%) Registered in OpenDOAR. India Used for Open access Repository software like Drupal, Greenstone, other and Australia Used for Open Access Repository software like VITAL, Fez, Digital Commons, DigiTool, Equella, Pure, Drupal, other. As Compared to India, Australia has more variety of software used for open access Repository.
5. English Language is highest Content upload both India (96) and Australia (90) Open Access Repository.

Conclusion

Lastly, This study conclude that there are 98 repositories from India and 90 repositories from Australia in OpenDOAR. In May 2021, a large number of Open Access Repository is included in OpenDOAR. Most of Open Access Repository is Institutional both India and Australia. Majority of India and Australia Open Access Repository contain contents in English language. India and Australia DSpace is popular software which is used in majority of Open access Repository. Large number of subject of content India and Australia of Open Access repository are Multidisciplinary.

Conflict of Interest

The authors declare that there are no conflicts of interest in this paper.

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None.

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