OPEN ACCESS JOURNALS AND ARTICLES ON 'GEOLOGY' : A CASE STUDY OF DIRECTORY OF OPEN ACCESS JOURNALS (DOAJ)

Dr.K. RAMASAMY [1], Dr.S. ARAVIND[2],

Mr.R. MAHESHWARAN[3] & Dr.T. PRATHEEPAN[4]

[1]College Librarian, M V Muthiah Govt. Arts College for Women, Dindigul, Tamilnadu, India.
Email: ramasamy1975@gmail.com
[2]Librarian, GTN Arts College, Dindigul, Tamilnadu, India
[3]Acting Librarian, University of Peradeniya, Sri Lanka
[4]Senior Assistant Librarian, Uva Wellassa University, Sri Lanka

ABSTRACT

Thanks to Open access movement and its widespread presence, the researchers now are able to access a good number of e-resources. The freely available journal and journal articles in very many subjects have created an intellectual vibration among academic community. The present study aims at analysing the open access journals and journal articles as listed in the Directory of Open Access Journals (DOAJ) as on 6th March, 2018. The data required for the study was downloaded from DOAJ website. The study reveals that: 90 journals and 24125 journal articles on Geology are listed in DOAJ. 14 journals have articles on Science, 6 have articles on environmental sciences, 4 on mining engineering / metallurgy, 4 on general geography. A majority of 62 journals don't charge any article processing charges. A majority of 42 journals have CC BY licence followed by 21 journals with CC BY-NC-ND and 12 with CC BY-NC. 12 journals on geology is published by Copernicus publications followed by 8 journals each from Europena Geosciences Union and De Gruyter Open. 14 journals from Germany. A majority of 79 journals are in English followed by 11 journals in Spanish and 6 journals in French. 41 journals on Geology in DOAJ follow peer review system while 27 journals follow blind peer review. 19 geology journals are added to DOAJ in 2017 followed by 18 journals in 2016 and 12 journals in 2015. The journal 'Biogeosciences" has published 37540 articles followed by 'Natural Hazards and Earth System Science' with 2739 articles. Copernicus Publicataions has published 11995 journal articles on geology followed by 1423 articles by Technical university of Kosice. A majority of 2769 journal articles of 2017 are listed in DOAJ followed by 2708 journal articles of 2015 and 2455 journal articles of 2016.

Keywords : DOAJ, open access journals, Geology license, review system, productive journals, productive publishers, preferred languages

INTRODUCTION

Open-access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions. OA is entirely compatible with peer review, and all the major OA initiatives for scientific and scholarly literature insist on its importance. Open access journals and open access archives are very important tools to disseminate the scholarly literature among the users. The benefits of open access for authors, organization, users and society are great. Open access promotes wider accessibility of the information produced by the author.

DOAJ (DIRECTORY OF OPEN ACCESS JOURNALS)

The Directory of Open Access Journals (DOAJ) is a free service, which provides fully Open Access, peer-reviewed scholarly journals. DOAJ is a collection of peer review open access journals covering various disciplines and different languages published from different countries across the world.

DOAJ is a continuously updated, vetted list of fully OA (no embargo or delay), peer-reviewed journals, encompassing all scholarly disciplines. As of November 2016, DOAJ includes 9,201 journals from 128 countries, more than three times as many journals as were included in the 2007 DOAJ review. There is also an article-level search service for over 6,000 DOAJ journals encompassing over 2.3 million articles. Of these, 256,600 articles are identified as published in 2015 (Morrison, 2017).

DOAJ is an online directory that indexes and provides access to quality open access, peer-reviewed journals. The aim of the DOAJ is to increase the visibility and ease of use of open access scientific and scholarly journals, thereby promoting their increased usage and impact. The DOAJ aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content. In short, the DOAJ aims to be the one-stop shop for users of open access journals. (http://doaj.org/).

REVIEW OF LITERATURE

Stenson (2012) argued for the value of the directories, mainly focusing on two of them: DOAJ and DOAB. It provides an introduction to the services, containing a brief history and status report, and addresses the differences between OA journal publishing and OA monograph publishing. It also highlights the value of these services and discusses whether the financial models behind them are sustainable.

Koohang (2006) demonstrated that advanced technologies and the increasing acceptance of academic open access e-journals offer an opportunity to reconsider their form and function as a medium to enhance scholarly communication. The academic open access e-journal is envisioned as a platform and a portal within the context of an open source community including a format and functions that

enable it to achieve that objective. A working model for academic open access e-journals is presented. This model is intended for open source communities involved in designing, developing, and/or improving open access academic e-journals.

Kumar (2013) stated that there are many online databases available on internet that provides open access journals of various disciplines. The facility to access of these journals that is freely available on internet should be launched in the libraries. The present study deals with open access journals accessible from Directory of Open Access Journals (DOAJ) in the subject of library science. Analyzed based on country, keywords, frequency, etc., the analysis indicates that there was only one open access journal i.e. Bulletin of the Medical Library Association was available before 1990 in the field of library and information science (LIS). Only 19.04% journals have their EISSN. Almost one fourth journals were publishing on half yearly basis.

Walter (2011) examined the characteristics of 663 Open Access (OA) journals in biology, computer science, economics, history, medicine, and psychology, then compare the OA journals with impact factors to comparable subscription journals. There is great variation in the size of OA journals; the largest publishes with more than 2,700 articles per year, but half publish 25 or fewer. While just 29 percent of OA journals charge publication fees, those journals represent 50 percent of the articles in our study. OA journals in the fields of biology and medicine are larger than the others, more likely to charge fees, and more likely to have a high citation impact. Overall, the OA journal landscape is greatly influenced by a few key publishers and journals.

Hulagabali (2012) analysed the Library and Information Science (LIS) journals with the aid of bibliometric methods. The study covers year-wise, country-wise and language-wise distribution of LIS journals archived in Directory of Open Access Journals (DOAJ). The year-wise growth of LIS journals, in DOAJ, started in the year 2003 with 21 journals. Till 2009, it has archived 97 LIS journals in its database. The LIS domain stands third position, under the social science stream, out of 960 journals listed under ten major disciplines in DOAJ database. In a country-wise distribution of LIS journals, developed countries top the share. In view of language wise distribution of LIS journals, 71 journals are monolingual and only 15 journals are bilingual. Out 97 journals 40 journals are being published in English language.

Jamdade (2013) studied the directory of Open Access Journals with a special Reference to Library & Information Science. It is observed that in the world wide United States was in 1st rank with 37 e-journals, Brazil was in 2nd rank with 16 e-journals, and Spain was 3rd rank with 10 e-journals in the field of library and information science. It is also revealed that India was in 5th rank publishing 6 e-journals on library and information science. English is the most common communication language for the scientific communities in the field of Library & Information Science. It is also found that Engineering (General) Computer Science -Library & Information Science e - journals are interdisciplinary in nature.

Ambhore and Khaparde (2014) studied 57 Open Access Online Journal on Genetics as found in DOAJ. It is observed that U.S. was in 1st rank in publishing 15 e-journals followed by U.K. English is the most common communication language for scientific community. Four e-journals on Generics also published simultaneously in English, French, Germany and Turkish languages. Based on results the study suggested that Research scholars, scientists and Professionals should browse the DOAJ site and access the free online journals on their subject areas and also suggested that scientists and Research scholars should publish their research work in online open access journals for wider visibility of their research work and for greater impact factor and citation index.

Ramesh (2014) analyzed the foot Marks of LIS Journals in DOAJ and found that 150 open access e-journals are published in the area of Library and Information Science discipline by various publishers of the world. These 150 Library and Information Science e-journals have been analyzed based on the LIS journals in social science discipline, country of journal published, language of journal published, and year of journal addition to the DOAJ.

SCOPE

This study covers the Geology journals archived in the directory of open access journals (DOAJ). The data was collected on 6th March, 2018.

OBJECTIVES

The objective of the present study are :

1. **General:** To find out the number of journals and journal articles available on Geology in DOAJ as on the day.

2. **Journals :** To find out the language, licence models, publishers, year of addition, article processing charges, DOAJ seal, subjects, productive countries, review system and languages of Geology journals as listed in DOAJ.

3. **Artilces:** To find out the subjects, journal titles, journal license, publishers, languages and year of publication of journal articles.

DATA COLLECTION

The data required for the present study was downloaded from DOAJ website using the keyword ‘Geology’.

Journals Vs Articles	No.
Journals	90
Articles	24125

As on 6th, March, 2018, 90 journals and 24125 journal articles on Geology are listed in DOAJ.

DATA ANALYSIS

PART –A : JOURNALS

1: SUBJECTS

Subject	No.
Science	14
Environmental sciences	6
Dynamic and structural geology	5
Mining engineering. Metallurgy	4
Geography (General)	4
Stratigraphy	3
Physical geography	3
Geophysics. Cosmic physics	3
Geography. Anthropology. Recreation	3

Table 1 shows that out of 90 journals on Geology, 14 have articles on Science, 6 have articles on environmental sciences, 4 on mining engineering / metallurgy, 4 on general geography while 3 journals have articles on stratigraphy, physical geography and geophysics / cosmic physics, medicine.

2. ARTICLE PROCESSING CHARGES

Article processing charges (APCs)	No.
No	62
Yes	27
No Information	1

Table 2 reveals that a majority of 62 journals don't charge any article processing charges while 27 journals require payments. No information about article processing charges is available for 1 journal.

3. DOAJ SEAL

DOAJ Seal	No.
No	69
Yes	21

Table 3 shows that 21 journals have DOAJ seal on them while a majority of 69 journals don't have DOAJ seal on them.

4. JOURNAL LICENSES

Journal license	No.
CC BY	42
CC BY-NC-ND	21
CC BY-NC	12
CC BY-NC-SA	7
CC BY-SA	5
Publisher's own license	2
CC BY-ND	1

Table 4 reveals that a majority of 42 journals have CC BY licence followed by 21 journals with CC BY-NC-ND and 12 with CC BY-NC. Just one journal has CC BY-ND license.

5. TOP PUBLISHERS

Publisher	No.
Copernicus Publications	12
European Geosciences Union	8
De Gruyter Open	8
Hindawi Publishing Corporation	5
Springer	3
Elsevier	3
Universidad Nacional de Colombia	2
Taylor & Francis Group	2
Faculty of Mining and Geology, Belgrade	2
Estonian Academy Publishers	2

Table 5 shows that a majority of 12 journals on geology is published by Copernicus publications followed by 8 journals each from Europena Geosciences Union and De Gruyter Open. While Hindawi Publishing Corporation has pubished 5 journals on geology, Springer and Elsevier have published 3 journals each on Geology.

6. PRODUCTIVE COUNTRIES

Country of publisher	No.
Germany	14
Poland	8
Brazil	7
Indonesia	5
Egypt	5
United Kingdom	4
Romania	4
Spain	3
Serbia	3
Italy	3

Table 6 reveals that there are 14 journals from Germany. While 8 journals are published in Poland, 7 journals are published in Brazil and 5 journals each are published in Indonesia and Egypt. While UK and Romania have 4 journals on geology, Spain, Italy and Serbia have 3 each on geology. Just 10 countries publish 54 journals on geology.

7. LANGUAGES

Full Text language	No.
English	79
Spanish; Castilian	11
French	6
Portuguese	5
Serbian	2
Russian	2
Persian	2
Indonesian	2
Slovenian	1
Slovak	1

Table 7 shows that out of 90 journals on Geology listed in DOAJ, a majority of 79 journals are in English followed by 11 journals in Spanish and 6 journals in French. While 5 journals are in Portuguese language, two journals each are available in Serbian, Russian, Persian and Indonesian. There is just one journal in Slovenian and Slovak languages.

8. REVIEW SYSTEM

Peer review	No.
Blind peer review	27
Double blind peer review	21
Peer review	41
No information	01

Table 8 reveals that 41 journals on Geology in DOAJ follow peer review system while 27 journals follow blind peer review and 21 journals follow double blind peer review system.

9. DATE OF ADDITION

Date added to DOAJ	No.
2018	1
2017	19
2016	18
2015	12
2014	3
2013	2
2012	3
2011	8
2010	3
2009	2
2008	3
2007	6
2006	4
2005	3
2004	3

Table 9 shows that a majority of 19 geology journals are added to DOAJ in 2017 followed by 18 journals in 2016 and 12 journals in 2015. While 8 journals were added in 2011, 6 journals were added in 2007. Even one journal is added in the year 2018.

PART –B ARTICLES

10. SUBJECTS

Subject	No.
Environmental sciences	4864
Life	3754
Ecology	3754
Geography. Anthropology. Recreation	2753
Environmental technology. Sanitary engineering)	2739
Mining engineering. Metallurgy	2320
Science	2093
Dynamic and structural geology	1640
Geography (General)	843

Table 10 reveals that out of 24125 journal articles on Geology listed in DOAJ, 4864 are on environmental sciences, 3754 articles each are on life and ecology. While 2753 articles are published on geography, anthropology, recreation, 2739 articles are published on environmental technology. 2320 articles are published on metallurgy while 1640 articles are published on dynamic and structural geology.

11. JOURNAL TITLES

Journal title	No.
Biogeosciences	3754
Natural Hazards and Earth System Sciences	2739
Acta Montanistica Slovaca	1423
Geoscientific Model Development	1219
The Cryosphere	1153
Estudios Geologicos	944
Terrestrial, Atmospheric and Oceanic Sciences	819
Advances in Geosciences	785
Rivista Italiana di Paleontologia e Stratigrafia	654
Proceedings of the International Association of Hydrological Sciences	608

Table 11 shows that the journal 'Biogeosciences" has published 37540 articles followed by 'Natural Hazards and Earth System Science' with 2739 articles. These two are the most productive journals. They are followed by 'Acta Montanistica Slovaca' with 1423 articles and 'Geoscientific model development' with 1219 articles.

12. JOURNAL LICENSE

Journal license	No.
CC BY	17718
CC BY-NC-ND	3055
CC BY-NC	2396
CC BY-NC-SA	543
CC BY-SA	315
Publisher's own license	98

Table 4 reveals that a majority of 17718 journal articles have CC BY licence followed by 3055 journal articles with CC BY-NC-ND licence, 2396 with CC BY-NC and 543 with CC BY-NC-SAlicense.

13. PUBLISHERS

Publisher	No.
Copernicus Publications	11995
Technical University of Kosice	1423
Elsevier	1073
Consejo Superior de Investigaciones Científicas	944
Chinese Geoscience Union	819
De Gruyter Open	781
Università degli Studi di Milano	654
Geological Survey of Slovenia	576
União da Geomorfologia Brasileira	463
Faculty of Mining, Geology and Petroleum Engineering	432

Table 13 reveals that Copernicus Publicataions has published 11995 journal articles on geology followed by 1423 articles by Technical university of Kosice, 1073 articles by Elsevier, 819 by Chinese Geoscience Union and 576 by Geological Survey of Slovenia.

14. LANGUAGES

Full Text language	No.
English	22888
Spanish; Castilian	1651
Slovak	1423
French (1181)	1181
Portuguese (736)	736
Slovenian (576)	576
Croatian (435)	435
Italian (252)	252
Russian (237)	237
Persian (232)	232

Table 14 shows that a majority of 22888 articles are in English language followed by 1651 in Spanish language, 1423 in Slovak language and 1181 in French language.

15. YEAR OF PUBLICATION OF JOURNAL ARTICLES

Year	No.		Year	No.		Year	No.
2018	497		2002	309		1986	53
2017	2769		2001	277		1985	48
2016	2455		2000	235		1984	42
2015	2708		1999	152		1916	1
2014	2290		1998	202			
2013	1839		1997	197			
2012	1700		1996	165			
2011	1348		1995	82			
2010	1271		1994	71			
2009	955		1993	73			
2008	803		1992	79			
2007	852		1991	47			
2006	802		1990	60			
2005	594		1989	65			
2004	444		1988	46			
2003	368		1987	56			

Table 15 reveals that a majority of 2769 journal articles of 2017 are listed in DOAJ followed by 2708 journal articles of 2015 and 2455 journal articles of 2016. We could see journal articles of 36 years i.e from 1916, 1984-2018 are listed in DOAJ. While the number of journal articles on geology was less during the initial years, we could realize the increasing interest from the year 1996. Since 2010, more than 1000 articles are getting added to DIAJ.

CONCLUSION

The Directory of Open Access Journals (DOAJ) provides open access to scientific and scholarly journals, that meet high quality standard by exercising peer review and is free to all from the time of publication based on the Budapest open access initiative. DOAJ is to increase the visibility and ease of use of open access scientific and scholarly journals there by promoter their increased usage and impact. Research scholars, scientists, Professionals should browse the DOAJ site and access the free online journals on their subject areas It is also suggested that scientists and Research scholars should publish their research work in online open access journals for wider visibility of their research work and for greater impact factor and citation index (Alhamdi, Khaparde and Navghare, 2015).

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