

Availability of Open Access Books in DOAB: An Analytical Study

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ABSTRACT

This paper discusses the availability of open access books which are available in the Directory of Open Access Books (DOAB). The relevant data has been collected from the open access directory from <http://www.openbooks.org/> on 25 October 2015. Among the 3379 books, 1584 (46.88 %) books are published in English which includes 445 books which have no licenses, 83 books have CC BY; 153 books have CC-BY-NC; 814 books have CC-BY-NC-ND; 36 books have CC-BY-NC-SA; 24 books have CC-BY-ND and 29 books have CC-BY-SA licenses. It is found that 21 books have not mentioned its authors in the directory.

Keywords: Open access, Directory of Open Access Books, DOAB, licenses

1. INTRODUCTION

In the 20th century, the library was opened for people's use. After the development of ICT, things have been changed. There are documents in electronic form that documents are made available to everyone with the help of internet. Internet helps to access anything at anywhere without any boundaries. So, internet brought the concept of accessing information stored in the network around the world. It is made available for public access, and private access with the help of technology. After the successful directory of open access journal, now the directory of open access of books has emerged in this direction. An attempt has been made to study and analyse the directory of open access books for the purpose.

1.1 Directory of Open Access Books (DOAB)

The Directory of Open Access Books (DOAB) is a service to provide open access on monographs. It provides a searchable index with links to the full- texts of the publications at the publisher's website or repository for peer-reviewed monographs through open access business model. It invites the academic publishers to provide the metadata of their open access books to DOAB. To increase dissemination, impact and visibility, the content format should be in interoperable metadata format. So the libraries can integrate the directory into their online catalogues, thereby helping scholars, students and the general public to discover the books. The aggregators may integrate the records in their commercial services. The DOAB is open to all academic publishers to provide the data. The main aims are to fulfill all the subjects as well as all languages which consists of many books as possible¹. The DOAB was officially launched on 1 July 2013 at the Open Access Monographs in the Humanities

and Social Sciences Conference at the British Library in London². However, unofficially it was operating since 2011 and its beta version was launched in 2012. The DOAB is a service of the Open Access Publishing in European Networks (OAPEN) Foundation. The OAPEN Foundation is an international initiative dedicated to open access monograph publishing, based at the National Library, The Hague³. The DOAB is being developed in close cooperation with Lars Bjørnshauge and Salam Baker Shanawa (Director of Semper Tool), who were also responsible for the development of the Directory of Open Access Journals (DOAJ)⁴.

1.2 Type of Licences

The main intention of the authors is to maximise the research results impact. Copyright should not be hindrance against this intension. There exists websites and tools to find out the journals and rights they are granting for distribution, reuse, etc. So, the authors have to rethink about how their work will be carried out further and they should choose right journals to publish.

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2. LITERATURE REVIEW

The E-books are easily indexed, catalogued and

Types of licences



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included in online public access catalogue (OPAC). Readers can also find e-books through search engines (such as Google), library OPAC or the publisher platform which make them more exposed and visible to a larger audience⁵. E-books offer a number of advantages over their print for all stakeholders, i.e., patrons, libraries, authors and publishers. For patrons, e-books offer 24/7 availability, remote access (accessible outside the physical walls of a library), full-text searching, changeable font size, accurate presentation and possession for an unlimited time. For libraries, e-books require no circulation, no shelf space or re-shelving and are never lost, damaged, stolen,

or overdue⁶. Brody⁷ studied the research access/impact problem i.e., the journal articles are not accessible to all of their users. Hence, they are losing potential research activities and their impact. The solution is to make all articles available in open access. The open access articles have significantly higher citation impact than non-open access articles. There are two roads which is 'golden' and 'green' road. Only 5 % of journals are in gold, but more than 90 % are already green yet only about 20 % of articles have been self-archived. The e-books with CC license listed in DOAB are downloaded almost twice (181 %) as compared to e-books with a more restrictive license available in the OAPEN Library in a period of one year from June 2013-May 2014⁸. This is the reason that DOAB includes e-books available through the CC or comparable licenses. Even the e-books available in the OAPEN Library with a more restrictive license aren't included in DOAB.

The DOAB is being developed in close cooperation with Lars Bjørnshauge and Salam Baker Shanawa (Director of SemperTool), who were also responsible for the development of the Directory of Open Access Journals (DOAJ)⁹. Loan¹⁰ found that 307 e-books under three categories—monographs (68.08 %), book series (30.29 %) and conference proceedings (1.63 %) are available for science and technology through DOAB. These e-books deal with 8 major subject areas of Science and technology having 36 sub-fields. The maximum number of e-books is available for the subjects like general science, technology & engineering, earth & environmental sciences; and health & medical sciences.

3. OBJECTIVES

The objectives of this study are to:

- Know the author-wise open access book in DOAB;
- Identify the publishers-wise books available in DOAB;
- Find out the year-wise added Vs licenses books in DOAB;
- Analyse the language Vs licenses-wise available books; and
- Identify the no. of pages Vs licenses books in DOAB.

4. METHODOLOGY

This study discusses about the availability of books available in the DOAB. The required data has been collected from the open access directory from <http://www.openbooks.org/> on 25 October 2015. It was analysed by using simple percentage and Chi-square test.

5. DATA ANALYSIS AND INTERPRETATION

5.1. Author Wise Distribution of Books in DOAB

Table 1 indicates the author wise distribution of books

Table 1. Author-wise distribution of books available in DOAB

S. No.	Name of author	No. of books	Percentage
1.	Not Mentioned	27	0.80
2.	Goebel , Hans	13	0.38
3.	Benchimol, Jaime Larry (org.); SÃ Magali Romero (org.)	12	0.36
4.	Lal V. , Brij	10	0.30
5.	Leopold Lambert	8	0.24
6.	Claudine Tiercelin	7	0.21
7.	Rodrigues, LeÃ ncio Martins	7	0.21
8.	Coester-Waltjen , Dagmar; Lipp, Volker; Schumann , Eva; Veit, Barbara	6	0.18
9.	Garnaut, Ross; Song , Ligang	6	0.18
10.	Grau, Luis	6	0.18
11.	Jacques Bouveresse	6	0.18
12.	Sorj, Bernardo	6	0.18
13.	Fundasao Oswaldo Cruz	5	0.15
14.	Lopes, Juarez Rubens BrandÃ o	5	0.15
15.	Zorzi, Andrea	5	0.15
16.	Consarelli, Bruna	4	0.12
17.	Herrmann, Bernd	4	0.12
18.	Richard Beale Davis	4	0.12
19.	Robertson-von Trotha , Caroline Y.	4	0.12
20.	Sadek, Maria Tereza	4	0.12
21.	Simone Aliprandi	4	0.12
22.	Wetenschappelijke Raad voor het Regeringsbeleid	4	0.12
23.	Others.	3222	95.35
	Total	3379	100

available in the DOAB. Based on the available data, the totally 3379 books available as on 25th October 2015. Among the 3379, 13 books (0.38 %) are authored by Goebel, Hans, but 27 (0.80 %) books the authors details were not mentioned in the directory.

5.2 Publisher-wise Distribution of Books

The publishers-wise distribution of books available in the DOAB has been analysed and it is shown in the Table 2. Among the 3379 books, 368 books (10.89 %)

Table 2. Publisher-wise distribution of books

S. No.	Publishers	No licences	CC BY	CC BY- NC	CC BY- NC-ND	CC BY-NC- SA	CC BY- ND	CC BY- SA	Total
1.	ANU Press	367 (10.86)	0	0	0	1 (0.03)	0	0	368 (10.89)
2.	Amsterdam University Press	0	0	145 (4.29)	85 (2.52)	0	0	0	230 (6.81)
3.	UniversitÃ tsvetlag GÃ ttingen	0	7 (0.21)	1 (0.03)	13 (0.38)	0	165(4.88)	23 (0.68)	209 (6.19)
4.	BÃ hlau	0	0	15 (0.44)	150 (4.44)	0	0	0	165 (4.88)
5.	Bloomsbury Academic	1 (0.03)	0	0	128 (3.79)	0	0	0	129 (3.82)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14708.302	330	.000
Likelihood Ratio	8901.031	330	.000
N of Valid Cases	3379		

are by ANU Press which includes 367 (10.86 %) books which has no licenses and only one book has CC-BY-NC-SA license and it is the first position while ranking the publishers.

Chi-square test is applied for further discussion about the licenses of open access books with respect to publishers. The computed Chi-square value is 14708.302 which is higher than its tabulated value at 5 % level of significance. Hence the difference among licenses wise publication is statistically identified as highly significant with respect to publisher wise open access books in DOAB.

5.3 Language-wise Distribution of Books

The languages-wise distribution of books available in the DOAB has been analysed and it is shown in the Table 3. Among the 3379, 1584 (46.88%) books are published by English which includes 445 (13.17 %) books which has no licenses, 83 books (2.46 %) has CC BY, 153 books (4.53 %) has CC- BY-NC, 814 books (24.09 %) has CC-BY-NC-ND, 36 books (1.07 %) has CC-BU-NC-SA, 24 (0.7) book has CC-BY-ND and 29 (0.86 %) book has CC-BY-SA licenses. It is revealed from the table, only one book each published in the languages like Welsh, Swedish, Russian and Espanola are available in DOAB.

The Chi-square test is for the licenses of with respect to language wise distribution of open access books on DOAB. The computed Chi-square value is 6042.093 which is higher than its tabulated value at 5 percent level of significance. Hence the difference among licenses wise publication is statistically identified as highly significant with respect to language wise open access books in DOAB.

5.4 Year-wise Distribution of Books

The publication year-wise distribution of books available in the DOAB Vs types of licenses is analysed

6.	Presses de lâ™Ifpo	123 (3.64)	0	0	0	0	0	0	123 (3.64)
7.	De Gruyter	1 (0.03)	0	0	113 (3.34)	0	0	0	114 (3.37)
8.	SciELO Books -Centro Edelstein	0	0	0	0	113 (3.34)	0	0	113 (3.34)
9.	CollÃ¨ge de France	102 (3.02)	0	0	0	0	0	0	102 (3.02)
10.	SciELO Books -Editora UNESP	0	0	0	0	97 (2.87)	0	0	97 (2.87)
11.	Utah State University, University Libraries	0	0	0	97 (2.87)	0	0	0	97 (2.87)
12.	Manchester University Press	0	0	0	94 (2.78)	0	0	0	94 (2.78)
13.	Athabasca University Press	0	0	0	93 (2.75)	0	0	0	93 (2.75)
14.	Firenze University Press	0	0	0	89 (2.63)	0	0	0	89 (2.63)
15.	SciELO Books - Editora FIOCRUZ	0	0	0	0	88 (2.6)	0	0	88 (2.6)
16.	Universidad Carlos III de Madrid.	0	0	0	78 (2.31)	0	0	0	78 (2.31)
17.	Springer-Verlag GmbH	2 (0.06)	0	74 (2.19)	0	0	0	0	76 (2.25)
18.	Punctum Books	0	0	0	68 (2.01)	0	0	0	68 (2.01)
19.	Open Book Publishers	0	33 (0.98)	0	28 (0.83)	0	1 (0.03)	1 (0.03)	63 (1.86)
20.	University of Calgary Press	0	0	0	63 (1.86)	0	0	0	63 (1.86)
21.	SciELO Books-EDUFBA	0	0	0	0	59 (1.75)	0	0	59 (1.75)
22.	Ledi Publishing	0	1 (0.03)	0	6 (0.18)	48 (1.42)	0	0	55 (1.63)
23.	Brill	0	0	12 (0.36)	38 (1.12)	0	0	0	50 (1.48)
24.	University of Adelaide Press	21 (0.62)	7 (0.21)	0	22 (0.65)	0	0	0	50 (1.48)
25.	CNRS Ãditions	47 (1.39)	0	0	0	0	0	0	47 (1.39)
26.	ENS Ãditions	46 (1.36)	0	0	0	0	0	0	46 (1.36)
27.	Newfound Press	29 (0.86)	0	15 (0.44)	0	0	1 (0.03)	0	45 (1.33)
28.	Central European University Press	38 (1.12)	0	0	0	0	0	0	38 (1.12)
29.	University of Michigan Press	0	0	0	30 (0.89)	0	0	0	30 (0.89)
30.	Academia Press	0	2 (0.06)	15 (0.44)	9 (0.27)	0	0	0	26 (0.77)
31.	EDPSCIENCES	0	0	24 (0.71)	1 (0.03)	0	0	0	25 (0.74)
32.	Open Humanities-Press	0	0	0	1 (0.03)	0	0	21 (0.62)	22 (0.65)
33.	Verlag der Ãsterreichischen	0	0	8 (0.24)	13 (0.38)	0	0	0	21 (0.62)
34.	Oxford University Press	0	0	1 (0.03)	19 (0.56)	0	0	0	20 (0.59)
35.	SciELO Books - EDUEPB	0	0	0	0	20 (0.59)	0	0	20 (0.59)
36.	KIT Scientific Publishing	0	0	0	19 (0.56)	0	0	0	19 (0.56)

37.	Universidad Nacional de La Plata. Facultad	1 (0.03)	0	0	18 (0.53)	0	0	0	19 (0.56)
38.	University of Tartu Press	0	0	0	14 (0.41)	0	3 (0.09)	0	17 (0.5)
39.	MDPI AG-Multi-disciplinary Digital Publishing Institute	0	16 (0.47)	0	0	0	0	0	16 (0.47)
40.	Ubiquity Press	4 (0.12)	12 (0.36)	0	0	0	0	0	16 (0.47)
41.	Presses agronomiques de Gembloux (Liege University)	0	1 (0.03)	0	0	13 (0.38)	0	0	14 (0.41)
42.	Editions de Linguistique et de Philologie	0	0	0	13 (0.38)	0	0	0	13 (0.38)
43.	Leiden University Press	2 (0.06)	0	5 (0.15)	6 (0.18)	0	0	0	13 (0.38)
44.	Studien Verlag	0	0	1 (0.03)	12 (0.36)	0	0	0	13 (0.38)
45.	OpenEdition Press	0	0	0	11 (0.33)	0	0	0	11 (0.33)
46.	Language Science Press	2 (0.06)	8 (0.24)	0	0	0	0	0	10 (0.3)
47.	Palgrave Macmillan	2 (0.06)	2 (0.06)	0	6 (0.18)	0	0	0	10 (0.3)
48.	Österreichisches Archäologische Institut	0	0	0	8 (0.24)	0	1 (0.03)	0	9 (0.27)
49.	Holzhausen	0	0	4 (0.12)	5 (0.15)	0	0	0	9 (0.27)
50.	IOS Press	0	0	8 (0.24)	0	0	0	0	8 (0.24)
51.	Liverpool University Press	0	0	0	8 (0.24)	0	0	0	8 (0.24)
52.	Taylor & Francis	0	0	0	8 (0.24)	0	0	0	8 (0.24)
53.	Utah State University Press/ Computers and Composition Digital Press	8 (0.24)	0	0	0	0	0	0	8 (0.24)
54.	Berg Publishers	0	0	0	6 (0.18)	0	0	0	6 (0.18)
55.	University of Huddersfield Press	2 (0.06)	4 (0.12)	0	0	0	0	0	6 (0.18)
56.	Other publishers	9 (0.26)	4 (0.12)	23 (0.68)	66 (1.95)	25 (0.73)	4 (0.12)	2 (0.06)	133 (3.94)
	Total	807 (23.88)	97 (2.87)	351 (10.39)	1438 (42.56)	464 (13.73)	175 (5.18)	47 (1.39)	3379 (100)

Table 3. Language-wise distribution of books

S. No.	Languages	No Licenses	CC BY	CC BY-NC	CC BY-NC-ND	CC BY-NC-SA	CC BY-ND	CC BY-SA	Total
1.	Not Mentioned	62 (1.83)	5 (0.15)	123 (3.64)	120 (3.55)	11 (0.33)	0	0	321 (9.5)
2.	Arabic	1 (0.03)	0	0	0	0	0	0	1 (0.03)
3.	Czech	0	1 (0.03)	0	2 (0.06)	0	0	0	3 (0.09)
4.	Dutch	1 (0.03)	2 (0.06)	44 (1.3)	218 (6.45)	0	4 (0.12)	0	269 (7.96)
5.	Dutch/English	0	0	3 (0.09)	10 (0.3)	0	0	0	13 (0.38)
6.	Dutch/English/French/Italian	0	0	1 (0.03)	0	0	0	0	1 (0.03)
7.	Dutch/Italian/Romanian	0	0	0	13 (0.38)	0	0	0	13 (0.38)
8.	Dutch/Latin	0	0	0	1 (0.03)	0	0	0	1 (0.03)

9.	Dutch/Latin/English	0	0	2 (0.06)	0	0	0	0	2 (0.06)
10.	English	445(13.17)	83 (2.46)	153 (4.53)	814 (24.09)	36 (1.07)	24 (0.71)	29 (0.86)	1584 (46.88)
11.	English/Greek	0	0	0	1 (0.03)	0	0	0	1 (0.03)
12.	English/Arabic	0	0	0	1 (0.03)	0	0	0	1 (0.03)
13.	English/Czech	0	0	0	1 (0.03)	0	0	0	1 (0.03)
14.	English/Italian	0	0	0	1 (0.03)	0	0	0	1 (0.03)
15.	English/French	0	0	0	2 (0.06)	2 (0.06)	0	0	4 (0.12)
16.	English/French/Greek/Chinese	0	0	0	1 (0.03)	0	0	0	1 (0.03)
17.	Espanol	0	0	0	0	1 (0.03)	0	0	1 (0.03)
18.	French/Spanish	0	0	0	1 (0.03)	0	0	0	1 (0.03)
19.	French	292 (8.64)	1 (0.03)	20 (0.59)	19(0.56)	5 (0.15)	0	0	337 (9.97)
20.	German	0	4 (0.12)	2 (0.06)	50 (1.48)	0	147 (4.35)	18 (0.53)	221 (6.54)
21.	German/English	0	0	0	3 (0.09)	0	0	0	3 (0.09)
22.	Italian	3 (0.09)	1 (0.03)	2 (0.06)	79 (2.34)	20 (0.59)	0	0	105 (3.11)
23.	French	0	0	0	1 (0.03)	0	0	0	1 (0.03)
24.	Potugueses	0	0	0	2 (0.06)	385 (11.39)	0	0	387 (11.45)
25.	Russian	0	0	0	1 (0.03)	0	0	0	1 (0.03)
26.	Spanish/Italian	0	0	0	1 (0.03)	0	0	0	1 (0.03)
27.	Spanish/English	0	0	0	1 (0.03)	0	0	0	1 (0.03)
28.	Spanish	2 (0.06)	0	0	94 (2.78)	0	0	0	96 (2.84)
29.	Swedish	1 (0.03)	0	0	0	0	0	0	1 (0.03)
30.	Welsh	0	0	0	1 (0.03)	0	0	0	1 (0.03)
		807 (23.88)	97 (2.87)	351 (10.39)	1438 (42.56)	464 (13.73)	175 (5.18)	47 (1.39)	3379 (100)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6042.093	198	.000
Likelihood Ratio	4100.933	198	.000
N of Valid Cases	3379		

and is presented in Table 4. During the period of 1866 to 2015 totally 3379 books were published. The publication year were categorised like upto 1980, 1981 to 1990, 1991 to 2000, 2001 to 2010 and 2011 to 2015. Among the 3379, 35 books (1.04 %) are published before 1980, which includes 31 books (0.92 %) has no licenses, 3 books (0.09 %) has CC-BY-NC-SA and only one book CC-BY-NC-ND licenses. And 22 books (0.65 %) in 1981 to 1990, 161 books (4.76 %) in 1991 to 2000 and 1525 books (45.13 %) in 2001 to 2010. The first book was published in the year 1866 and the second book in 1867 but after the 1867 to 1927 there were no books mentioned it is evidence from source.

The Chi-square test was applied for further discussion about the year-wise publication of open access books with respect to type of licenses. The computed Chi-square value is 532.750 which is higher than its tabulated value at 5 % level of significance. Hence, the difference among

licenses-wise publication is statistically identified as highly significant with respect to year-wise publication of open access books in DOAB.

5.5. Year-wise Addition of Books and Type of Licenses

Table 5 shows the licenses-wise distribution of open access books available in DOAB which are categories based on year-wise added on DOAB. Out of 3379, 487 books (14.41 %) added in 2011, 702 books (20.77 %) in 2012, 365 books (10.8 %) in 2013, 920 books (27.22 %) in 2014 and 905 books (26.78 %) added in 2015 with DOAB. Among the 3379, 807 books (23.88 %) have no licenses, 97 books (2.87 %) have CC-BY, 351 books (10.39 %) have CC BY-NC, 1438 books (42.56 %) have CC BY-NC-ND, 464 books (13.73 %) have CC BY-NC-SA, 175 books (5.18 %) have CC BY-ND and 47 books (1.39 %) have CC BY-SA licenses. It is revealed from the table, more than 50 % of books were added in 2014 and 2015.

Chi-square test is applied for the licenses of open access books with respect to year of added on DOAB versus licenses. The computed Chi-square value is 1407.314 which is higher than its tabulated value at 5 % level of significance. Hence, the difference among licenses-wise

Table 4. Year-wise distribution of books

S. No.	Publication year								Total
		No licenses	CC BY	CC BY-NC	CC BY-NC-ND	CC BY-NC-SA	CC BY-ND	CC BY-SA	
1.	Not Mentioned	10 (0.3)	0	4 (0.12)	1 (0.03)	0	0	0	15 (0.44)
2.	Upto 1980	31 (0.92)	0	0	1 (0.03)	3 (0.09)	0	0	35 (1.04)
3.	1981-1990	19 (0.56)	0	0	3 (0.09)	0	0	0	22 (0.65)
4.	1991-2000	60 (1.78)	0	7 (0.21)	40 (1.18)	54 (1.6)	0	0	161 (4.76)
5.	2001-2010	369 (10.92)	5 (0.15)	140 (4.14)	600 (17.76)	307 (9.09)	104 (3.08)	0	1525 (45.13)
6.	2011-2015	318 (9.41)	92 (2.72)	200 (5.92)	793 (23.47)	100 (2.96)	71 (2.1)	47 (1.39)	1621 (47.97)
	Total	807 (23.88)	97 (2.87)	35 (10.39)	1438 (42.56)	464 (13.73)	175 (5.18)	47 (1.39)	3379 (100)

Chi-Square Test			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	532.750	30	.000
Likelihood Ratio	560.629	30	.000
N of Valid Cases	3379		

301 to 400 pages, 151 books (4.47 %) have more than 400 pages and 1505 books (44.53 %) have not mentioned its page number in the directory. It is concluded from the Table, nearly 45 % of the books have not mentioned its page number details. 535 (15.83 %) has no licenses, 15(0.44 %) has CC-BY, 122 (3.61 %) has CC-BY-NC,

Table 5. Year-wise open access added on DOAB by type of licenses

S. No.	Added year on DOAB								Total
		No licenses	CC BY	CC BY-NC	CC BY-NC-ND	CC BY-NC-SA	CC BY-ND	CC BY-SA	
1.	2011	1 (0.03)	2 (0.06)	137 (4.05)	247 (7.31)	0	100 (2.96)	0	487 (14.41)
2.	2012	217 (6.42)	8 (0.24)	37 (1.09)	398 (11.78)	0	34 (1.01)	8 (0.24)	702 (20.78)
3.	2013	1 (0.03)	23 (0.68)	26 (0.77)	253 (7.49)	29 (0.86)	29 (0.86)	4 (0.12)	365 (10.8)
4.	2014	293 (8.67)	25 (0.74)	73 (2.16)	347 (10.27)	146 (4.32)	8 (0.24)	28 (0.83)	920 (27.23)
5.	2015	295 (8.73)	39 (1.15)	78 (2.31)	193 (5.71)	289 (8.55)	4 (0.12)	7 (0.21)	905 (26.78)
	Total	807 (23.88)	97 (2.87)	351 (10.39)	1438 (42.56)	464 (13.73)	175 (5.18)	47 (1.39)	3379 (100)

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1407.314	24	.000
Likelihood Ratio	1610.671	24	.000
N of Valid Cases	3379		

publication is statistically identified as highly significant with respect to added year of open access books in DOAB.

5.6 Open Access on DOAB by No. of Pages

The distribution number of pages-wise open access books in the DOAB has been analysed and it is shown in the Table 6. The open access books categorised based on the number of pages like 1-100, 101-200, 201-300, 301-400 and above 400. Among the 3379, 125 books (3.70 %) have below 100 pages, 528 books (15.63 %) have 101 to 200 pages, 683 books (20.21 %) have 201 to 300 pages, 387 books (11.45 %) have the category of

680 (20.12 %) has CC-BY-NC-ND, 52 (1.54 %) has CC-BY-NC-SA, 90 (2.66 %) has CCBY-ND and 11 (0.33 %) book has CC-BY-SA.

Chi-square test is applied for further analysis about the licenses of open access books with respect to number of pages. The computed Chi-square value is 568.057 which is higher than its tabulated value at 5 % level of significance. Hence the difference among licenses versus number of pages is statistically identified as highly significant.

6. FINDINGS

- There are 3379 books available in DOAB in which 21 books don't provide the authors details in the directory.
- Among the 3379, 368 books (10.89 %) are from ANU Press out of which includes 367 (10.86 %) books have no licenses and only one book has CC-BY-NC-SA license.

Table 6. Open access on DOAB by No. of pages

S. No.	No. of pages								Total
		No Licenses	CC BY	CC BY-NC	CC BY-NC-ND	CC BY-NC-SA	CC BY-ND	CC BY-SA	
1.	Not Mentioned	535 (15.83)	15 (0.44)	122 (3.61)	680 (20.12)	52 (1.54)	90 (2.66)	11 (0.33)	1505 (44.54)
2.	1-100	12 (0.36)	6 (0.18)	3 (0.09)	40 (1.18)	57 (1.69)	5 (0.15)	2 (0.06)	125 (3.7)
3.	101-200	72 (2.13)	28 (0.83)	47 (1.39)	198 (5.86)	144 (4.26)	31 (0.92)	8 (0.24)	528 (15.63)
4.	201-300	100 (2.96)	30 (0.89)	93 (2.75)	283 (8.38)	131 (3.88)	28 (0.83)	18 (0.53)	683 (20.21)
5.	301-400	67 (1.98)	8 (0.24)	61 (1.81)	166 (4.91)	60 (1.78)	17 (0.5)	8 (0.24)	387 (11.45)
6.	Above 400	21 (0.62)	10 (0.3)	25 (0.74)	71 (2.1)	20 (0.59)	4 (0.12)	0	151 (4.47)
	Total	807 (23.88)	97 (2.87)	351 (10.39)	1438 (42.56)	464 (13.73)	175 (5.18)	47 (1.39)	3379 (100)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	568.057	30	.000
Likelihood Ratio	571.735	30	.000
N of Valid Cases	3379		

- 1584 books (46.88 %) were published in English where 445 books (13.17%) has no licenses, 83 books (2.46 %) has CC BY; 153 books (4.53 %) has CC-BY-NC; 814 books (24.09 %) has CC-BY-NC-ND; 36 books (1.07 %) has CC-BY-NC-SA, 24 books (0.7) has CC-BY-ND; and 29 books (0.86 %) has CC-BY-SA licenses
- After 2011 nearly 1621 books were published which consists of 318 books (9.41 %) has no licenses; 92 books (2.72 %) has CC-BY; 200 books (5.92 %) has CC-BY-NC; 793 books (23.47 %) has CC-BY-NC-ND; 100 books (2.96 %) has CC-BY-NC-SA; 71 books (2.1 %) has CC-BY-ND; and 47 books (1.39 %) has CC-BY-SA licenses.
- 125 books (3.70 %) have less than 100 pages; 528 books (15.63 %) have 101-200 pages; 683 books (20.21 %) have 201-300 pages; 387 books (11.45 %) have 301-400 pages.

7. CONCLUSIONS

The open access movement is exclusive and important in the current digital era. It is evident that the scholarly communication forms like articles, monographs, reports, etc. are available open access mode. There are directories coming out with sole publications as journals, books, repositories and so on. They satisfy the end users for getting more documents through open access mode without spending more money. The DOAB is a platform to have more visibility for open access books to the users communities. The publishers as well as authors should take initiative to share the books in the DOAB. It paves way to integrate open access books links to the library online catalogue. The library professionals can also utilise this facility by way of giving link to the library catalogue. It

also helps scholars and students to discover and utilise the open access books. Open access movement will be successful if institutions, organisations, and individuals keep on contributing in the open access mode.

REFERENCES

1. DOAB—Directory of Open Access Books. <http://www.doabooks.org/>
2. Adema, J. A project exploring open access monograph publishing in the Netherlands, 2013. https://www.surf.nl/binaries/content/assets/surf/en/knowledgebase/2013/OAPEN+Rapport_+A+project+exploring+Open+Access+monograph+publishing+in+the+Netherlands_210_2015.
3. Snijder, R. A new service for open access monographs: The directory of open access books. 2012. <http://www.newworldencyclopedia.org/entry/E-book>.
4. SemperTool. SemperTool: All about the digital library, 2014. <http://www.sempertool.dk/about>.
5. Wouter van der Velde & Ernst, Olaf. The future of e-books? will print disappear? An end-user perspective. *Library Hi Tech*, 2009, **27**(4), 570-83. <http://dx.doi.org/10.1108/07378830911007673> (accessed on 31 January 2016).
6. Littman, J. & Connaway, L.S. A circulation analysis of print books and e-Books in an academic research library. *Lib. Res. & Tech. Serv.*, 2004, **48**(4), 256-62.
7. Brody, T., *et al.* The access/impact problem and the green and gold roads to open access. *Serials Review*, 2004, **30**(4), 310-14.
8. DOAB. Listing books in DOAB increases usage. DOAB Newsletter, 2014. <http://us4.campaign-archive1.com/home/?u=314fa411ba5eaae7244c95e1&id=a362459f54>
9. Adema, J. DOAB user needs analysis. 2012. <https://doabooks.files.wordpress.com/2012/11/doab-user-needs.pdf>
10. Loan, Fayaz Ahmad & Refhat-un-nisa. Open access e-books in science and technology: A case study of

directory of open access books. *DESIDOC J. of Lib. & Inf. Tech.*, 2015, **35**(4), 304-09.

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