

Mapping of E-books in Science & Technology: An Analytical Study of Directory of Open Access Books

Vanita Khanchandani* and Moveen Kumar**

**Central Library, Indian Institute of Technology Delhi, New Delhi-110 016
E-mail: vanita@library.iitd.ac.in*

***Central Library, Jawaharlal Nehru University, New Delhi-110 067
Email: moveensaga@gmail.com*

ABSTRACT

A detailed study of e-books in Science and Technology indexed in Directory of Open Access Books (DOAB) till May 15, 2016 is presented. Open access publishers, licenses and language-wise distribution of e-books indexed in DOAB is examined. The data collected only on the subjects listed in DDC-23 under Science and Technology domain. The results depicts that there are 1052 e-books indexed in Science and Technology in DOAB. The collection includes e-books that are both made-digital and born digital. Maximum books are on health sciences and published in English only. Mostly e-books have creative commons license. Moreover, Frontier Media SA is the most active open access e-book publisher. The study shall be helpful to library and information professionals as well as open access publishers.

Keywords: E-books, open access (OA), science and technology (S&T), directory of open access books (DOAB), internet technology.

1. INTRODUCTION

Internet has a great impact on our daily life and brought several changes in the education sector. Internet technology has transposed the discourse of information. Now, information is available in different forms, i.e., from print to electronic media. Previously, people used to read only print books but due to technological developments digital books/electronic books are also made available.

The term e-book was coined by Andries Van Dam while working on a Hypertext Encoding System and FRESS project at Brown University in 1960¹. Merriam Webster's Dictionary defines e-book as, 'a book composed in or converted to digital format for display on a computer screen or handheld device'².

1.1. Transition from Print to E-book

The transition from print to e-book has a long history. Project Gutenberg by Michael S. Hart in 1971 probably laid the foundation of e-books. After that, Google Book Project, Hathi Trust and Internet Archive are three important landmarks in e-book history through which e-books in different domains made accessible freely. NetLibrary, Questia and ebrary all are commercialised platform to access e-books. With the launch of kindle by Amazon in 2007 and iPads from Apple in 2010 the e-books gained popularity among the users³. The use of e-books has raised several questions such as their cost, accessibility and copyright issues among the librarians. Financial and permission barriers both creating hurdle

in their use. To overcome these issues, open access movement was launched.

1.2. Open Access

Open Access is a new model for scholarly communication. It helps in the use, distribution and redistribution of scholarly content freely to everyone. It is based on General Public License (GNU) or creative common license. With the recent developments, open access has gained the momentum. Different funding bodies, libraries and publishers come across hand in hand to make the movement a successful one. Different e-journals and e-books are made available to scholarly community. There are various platforms through which e-books can be downloaded. One of such is OAPEN (Open Access Publishing in European Networks).

1.3. OAPEN and DOAB

OAPEN (Open Access Publishing in European Networks) was started in 2008 as an EU funded Project coordinated by Amsterdam University Press. The OAPEN Foundation is an international initiative dedicated to Open Access monograph publishing, based at the National Library in Hague⁵. OAPEN foundation is a member of OAPSA, Open Access Scholarly Publisher Association⁶. Both work together to form guidelines for publishers. OAPEN library contains books available under open licenses, from Creative Commons and the books that are published under terms that only allow for personal use⁷.

OAPEN launched a new service for discovery of Open Access books: The Directory of Open Access Books (DOAB). DOAB is providing a searchable index to monographs published under an Open Access business model, with links to the full texts of the publications at the publisher's website or repository. Officially it was launched on July 1, 2013 but its beta version was made available to public from spring 2012⁵. DOAB basically divided into 17 subject fields of both Science and Technology and Humanities and Social Sciences and each subject field is further divided into sub-branches⁸.

2. LITERATURE REVIEW

In the preceding section, an attempt has been made to review the related literature by searching different journals and databases from India and abroad. The reviewed literature has provided insights in undertaking the present study and helps in knowing the different lacuna in the previous studies.

Anuradha & Usha⁹ in their study analysed different e-books access models (offline and online). They said that e-books are not new but they are slow in uptake as compared to other e-publications such as journals and newspapers. The possible reason is that the technology behind e-books has yet to be matured fully. But due to involvement of commercial publishers their use has been increased. Sahu & Arya¹⁰ highlight that open access movement has been embraced keeping in view to increase visibility. They find that the awareness towards open access publishing is increasing among scholars. They also find that India's contribution in open access has increased in last few years. Snijder⁷ endeavoured to collect data of 1734 books available from OAPEN library platform. He studied the influence of open licenses and aggregation in DOAB. He finds that aggregation in the DOAB has a large positive effect on number of downloads than making books available under open licenses. Loan & Refhat-un-Nnisa¹¹ collected data regarding science and technology in March 2014. They revealed that there were 307 e-books available on science and technology in DOAB having eight major subject areas and 36 sub-fields. Out of 307, 178 e-books are published in English followed by 88 German books. Maximum (285(79.80%)) e-books are available through creative common licence while Dhanavandan & Amizhchelvan¹² found that 3379 e-books were available in DOAB and 1584 books published in English. In another study Dhanavandan¹³ found that publication of e-books has gradually increased from 2010.

3. STATEMENT OF THE PROBLEM

Internet technology has democratised the education sector all around the world. But the academic and the scholarly content is not available freely. It has both permission and financial barriers. As research is publically funded to make it accessible to everyone and to overcome both the preceding barriers, open access movement has been snowballed all around the world.

Due to the efforts of different open access declarations and institutions three important directories were launched to index open access content for the academicians, i.e. Directory of Open Access Journals (DOAJ), Directory of Open Access Repositories (OpenDOAR) and Directory of Open Access Books (DOAB).

The present study has been undertaken to study the mapping of e-books in Science and Technology (S&T) indexed in the Directory of Open Access Books (DOAB). The study will be helpful in knowing different open access e-books available in various subject domains under Science & Technology. This study will be beneficial for the authors, publishers and librarians. All these together mutually help one another to create open access content and can index their books in DOAB thereby increasing the visibility. The results presented in the study will provide new insights for the better development of DOAB.

4. OBJECTIVES

The objectives of the study are to:

- (a) Identify the open access (OA) books in different subject domains of Science and Technology in DOAB
- (b) Identify the OA books in different sub-branches of main subjects of S & T in DOAB
- (c) Identify the different OA publishers and type of licenses and language in which they publish in DOAB
- (d) Know the language-wise distribution of OA books in DOAB
- (e) Know the year-wise publication of books in DOAB
- (f) Know the license-wise distribution of OA books in DOAB and
- (g) Know the authorship trends in DOAB.

5. SCOPE AND LIMITATIONS

- (a) The study covers the open access books indexed in the Directory of Open Access Books (DOAB) in Science and Technology. The subject covered has been determined according to DDC 23 (2011) edition which includes Science, Mathematics, Astronomy, Physics, Chemistry, Earth Sciences and Geology, Biology, Botany, Zoology, Medicine and Health Science, Engineering, Agriculture, Chemical Engineering and Manufacturing; and
- (b) As the knowledge is growing tremendously so as the number of open access books is also increasing in DOAB. Hence, the study is limited up to May 15, 2016 in Science and Technology only.

6. METHODOLOGY

The study undertaken was reviewed using the terms 'open access', 'open access e-books' and 'DOAB' in

journals and databases such as *google scholar*, *Scopus*, *Web of Science*, *Emerald*, *JSTOR*, etc. to get a wider overview of the literature. The data was collected from the Directory of Open Access Books (DOAB) in Science and Technology up to May 15, 2016 having different parameters. With help of MS Excel i.e., duplicate title entries were removed and data was analysed using filters into different tables to get a clear understanding of different open access books indexed in DOAB in Science and Technology.

7. DATA ANALYSIS AND INTERPRETATION

7.1. Subject-wise Distribution of E-books

There are various subject domains in science and technology as already mentioned under the scope. The Table 1 depicts the subject-wise distribution of e-books in science and technology. The table shows that there are 1052 e-books indexed in DOAB in science and technology. The data reveals that there were few e-books indexed in pure sciences and more on applied sciences in DOAB. The health sciences is on the top having 473 e-books because open access movement was originated through health sciences scholarly communication itself.

7.2. Distribution of E-books in Sub-branches of Main Subjects in S&T

Table 2 shows the e-books in sub branches of main subject are:

7.3. License-wise Distribution of E-books

DOAB contain book available under open licenses such as creative commons. There are mainly six types of creative commons licenses¹⁴.

Table 3 reveals that maximum (47.52%) e-books are having BY type license as the mostly dominating publisherFrontier Media SA from Switzerland has adopted

Table 1. Subject-wise distribution of e-books

S. No.	Subject	No. of e-books (%)
1.	Health sciences	473 (44.96)
2.	Science (general)	147 (13.97)
3.	Biology and life sciences	144 (13.68)
4.	Technology and engineering	107 (10.17)
5.	Earth and environmental sciences	87 (8.2)
6.	Agriculture and food sciences	46 (4.37)
7.	Mathematics and statistics	35 (3.32)
8.	Physics and astronomy	09 (0.85)
9.	Chemistry	04 (0.38)
Total		1052

Table 2. Distribution of e-books in sub-branches of main subjects

a- Distribution of e-books in health sciences		
S. No.	Branches in health science	No. of e-books (%)
1.	Medicine	185 (39.11)
2.	Neurology	164 (34.67)
3.	Allergy and immunology	46 (9.72)
4.	Internal medicine	29 (6.1)
5.	Public health	13 (2.74)
6.	Psychiatry	10 (2.1)
7.	Therapeutics	10 (2.1)
8.	Dermatology	03 (0.63)
9.	Oncology	03 (0.63)
10.	Pharmacy and materia medica	03 (0.63)
11.	Sports medicine	02 (0.42)
12.	Surgery	02 (0.42)
13.	Dentistry	01 (0.21)
14.	Gynecology and obstetrics	01 (0.21)
15.	Pediatrics	01 (0.21)
Total		473
b- Distribution of e-books in biology and life sciences		
S. No.	Branches in biology and life sciences	No. of e-books (%)
1.	Microbiology	42 (29.1)
2.	Botany	31 (21.5)
3.	Physiology	26 (18.05)
4.	Biology	18 (12.5)
5.	Genetics	15 (10.41)
6.	Zoology	08 (5.5)
7.	Biochemistry	02 (1.38)
8.	Biotechnology	02 (1.38)
Total		144
c- Distribution of e-books in technology and engineering		
S. No.	Branches in technology and engineering	No. of e-books
1.	Computer science	47 (43.92)
2.	Technology	18 (16.8)
3.	General and civil engineering	13 (12.1)
4.	Environmental technology	08 (7.47)
5.	Chemical technology	05 (4.67)
6.	Electrical and nuclear engineering	04 (3.73)
7.	Construction	03 (2.8)
8.	Manufactures	02 (1.86)
9.	Materials	02 (1.86)
10.	Mechanical engineering	02 (1.86)
11.	Hydraulic engineering	01 (0.93)
12.	Environmental engineering	01 (0.93)
13.	Transportations	01 (0.93)
Total		107

d- Distribution of e-books in earth and environmental sciences

S. No.	Branches in earth and environmental sciences	No. of e-books (%)
1.	Environmental sciences	52 (59.7)
2.	Ecology	15 (17.2)
3.	Earth sciences	10 (11.4)
4.	Geophysics and geomagnetism	04 (4.5)
5.	Metrology and climatology	03 (3.4)
6.	Geology	02 (2.29)
7.	Oceanography	01 (1.1)
Total		87

e- Distribution of e-books in agriculture and food sciences

S. No.	Branches in agriculture and food sciences	No. of e-books (%)
1.	Agriculture	18 (39.1)
2.	Forestry	09 (19.5)
3.	Animal sciences	06 (13.04)
4.	Aquaculture and fisheries	05 (10.86)
5.	Nutrition and food sciences	05 (10.86)
6.	Plant sciences	03 (6.52)
Total		46

f- Distribution of e-books in mathematics and statistics

S. No.	Subject	No. of e-books (%)
1.	Mathematics	34 (97.1)
2.	Statistics	1 (2.85)
Total		35

g- Distribution of e-books in physics and astronomy

S. No.	Subject	No. of e-books (%)
1.	Astronomy	02 (22.2)
2.	Physics	06 (66.6)
3.	Nuclear physics	01 (11.11)
Total		09

h- Distribution of e-books in chemistry

S. No.	Subject	No. of e-books (%)
1.	Chemistry	03 (75)
2.	Analytical chemistry	01 (25)
Total		04

BY type CC license for publications of e-books while 8 (0.76%) e-books having different publishers' license that also allow the use of books under open-access.

7.4. Publisher-wise Distribution of E-books

Table 4 shows publisher-wise distribution of e-books. This table also highlights the copyright license opted by the publisher for its use and the publication language. Frontiers Media SA is the top most publisher in open access e-book publishing. In DOAB, 470 e-books (44.67%) are from frontier media alone. They have BY type of license and publish e-books in English as it is dominating language for science communication among scholars,

Table 3. License-wise distribution of e-books

S. No.	Type of license	No. of e-books (%)
1.	BY	500 (47.52)
2.	BY-NC-ND	176 (16.73)
3.	BY-NC-SA	139 (13.21)
4.	BY-NC	106 (10.07)
5.	ANU Press	61 (5.7)
6.	BY-ND	50 (4.7)
7.	BY-SA	12 (1.1)
8.	University of adelaide press	05 (0.47)
9.	University of rochester press	01 (0.09)
10.	Rodopi	01 (0.09)
11.	Berghahn	01 (0.09)
Total		1052

BY: attribution alone

BY-SA: attribution + share-a-like

BY-NC: attribution + non-commercial

BY-ND: attribution + no-derivatives

BY-NC-SA: attribution+non-commercial+share-a-like

BY-NC-ND: attribution+non-commercial+no-derivatives

which is followed by SciELO Books (Scientific Electronic Library Online) from Brazil. 119 (11.31%) total e-books were published, as they publish e-books under different platforms. They publish in Portuguese and have BY-NC- SA type license and then followed by ANU Press (Australian National University Press). They have their own license which allows openly access and publish e-books in English only.

7.5. Language-wise Distribution of E-books

E-books which are indexed in DOAB are published in varied languages of the world. Table 5 shows language-wise distribution of e-books. About 800 (76.04%) e-books published in English as English is the most popular language for scholarly communication which is followed by 118 e-books (11.21%) in Portuguese, then German 95 (9.03%) e-books, Italian 17 (1.61%) e-books. There are only three e-books (0.28%) which are published bilingually in German and English both. This data is reflected from Table 4 also.

7.6. Year-wise Distribution of E-books

Table 6 reveals the year of publication of the books indexed in DOAB. There are only 34 (3.23%) e-books which are published before 2000, moreover these books are made digital by scanning. The table also depicts that the publication of books grow up exponentially till 2006 and again after 2007 (decline perhaps due to Amazon's kindle which provide access to commercial e-books) it starts growing with maximum in 2014, 182 (17.3%) e-books and 381 (36.21%) e-books in 2015 due to new technologies for accessing these open access e-books.

Table 4. Publisher-wise distribution of e-books

S. No.	Name of the publisher	No. of e-books published (%)	Type of license (no. of e-books)	Language
1.	Frontiers Media SA	470 (44.67)	BY	English
2.	SciELO Books - Editora FIOCRUZ	65 (6.17)	BY-NC-SA	Portuguese
3.	ANU Press	62 (5.89)	ANU Press	English
4.	Universitätsverlag Göttingen	59 (5.60)	BY(3) BY-NC (1) BY-NC-ND (6) BY-ND (46) BY-SA (3)	German (51) English (8)
5.	Springer-Verlag Gmbh	50 (4.7)	BY-NC	German (2) English (48)
6.	De Gruyter	47 (4.46)	BY-NC-ND	English (39), German (5) English & German (3)
7.	Amsterdam University Press	32 (3.04)	BY-NC (28) BY-NC-ND (4)	English
8.	Bohlau	22 (2.09)	BY-NC (2) BY-NC-ND (20)	German
9.	SciELO Books - EDUFBA	20 (1.90)	BY-NC-SA	Portuguese
10.	Ledizioni - LediPublishing	18 (1.7)	BY-NC-SA (15)	English (11)
			BY-NC-ND (3)	Italian (7)
11.	Firenze University Press	12 (1.1)	BY-NC-ND	English (3), Italian (9)
12.	SciELO Books - Editora UNESP	11 (1.04)	BY-NC-SA	Portuguese
13.	Open Humanities Press	10 (0.95)	BY-SA (9) BY-NC-ND (1)	English
14.	University of Calgary Press	10 (0.95)	BY-NC-ND	English
15.	Open Book Publishers	09 (0.85)	BY (7) BY-NC-ND (1) BY-ND (1)	English
16.	Pallgrave Macmillan	09 (0.85)	BY-NC-ND (2) BY (7)	English
17.	University of Adelaide Press	09 (0.85)	BY-NC-ND (4) University of Adelaide Press (5)	English
18.	University of Michigan Press	09 (0.85)	BY-NC-ND	English
19.	KIT Scientific Publishing	07 (0.66)	BY-NC-ND	German
20.	Ubiquity Press	07 (0.66)	BY	English (5), Italian (1), French (1)
21.	IOS Press	06 (0.57)	BY-NC	Dutch (1), English (5)
22.	Manchester University Press	06 (0.57)	BY-NC-ND	English
23.	Routledge	05 (0.47)	BY-ND (1)	English
			BY-NC-ND (4)	
24.	SciELO Books - Saúde Brasil 2030	05 (0.47)	BY-NC-SA	Portuguese
25.	Verlag der Österreichischen Akademie der Wissenschaften	05 (0.47)	BY-NC-ND (4)	German
			BY-NC (1)	
26.	EDP Sciences	04 (0.38)	BY-NC	French
27.	Language Science Press	04 (0.38)	BY	English
28.	SciELO Books - Centro Edelstein	04 (0.38)	BY-NC-SA	English (1)
				Portuguese (3)

29	SciELO Books - EDUEPB	04 (0.38)	BY-NC-SA	Portuguese
30	University of Tartu Press	04 (0.38)	BY-NC-ND (3)	English
			BY-ND (1)	
31.	Academia Press	03 (0.28)	BY (1)	Dutch
			BY-NC (1)	
			BY-NC-ND (1)	
32.	Bloomsbury Academic	03 (0.28)	BY-NC-ND	English
33.	Holzhausen	03 (0.28)	BY-NC	German (1)
				Spanish (2)
34.	IWA Publishing	03 (0.28)	BY-NC-ND	English
35.	Oxford University Press	03 (0.28)	BY-NC-ND	English
36.	SciELO Books - Sociedade Brasileira de Zoologia	03 (0.28)	BY-NC-SA	Portuguese
37.	Brill	02 (0.19)	BY-NC (1)	English
			BY-NC-ND (1)	
38.	M Publishing	02 (0.19)	BY-NC	English
39.	MDPI AG - Multidisciplinary Digital Publishing Institute	02 (0.19)	BY	English
40.	Punctum Books	02 (0.19)	BY-NC-ND	English
41.	SciELO Books - EDUEL	02 (0.19)	BY-NC-SA	Portuguese
42.	SciELO Books - JBRJ	02 (0.19)	BY-NC-SA	Portuguese
43.	Tampere University Press	02 (0.19)	BY-NC	Finnish
44.	University of Ottawa Press	02 (0.19)	BY-NC-SA	English
45.	Utah State University Libraries	02 (0.19)	BY-NC-ND	English
46.	Athabasca University Press	01 (0.09)	BY-NC-ND	English
47.	Berghahn Books	01 (0.09)	Berghahn Books	English
48.	Boydell and Brewer	01 (0.09)	BY-NC	English
49.	Co-Action Publishing	01 (0.09)	BY-NC	English
50.	Duke University Press	01 (0.09)	BY-NC-SA	English
51.	Editions Alphil Presses Universitaires Suisses	01 (0.09)	BY-NC-ND	French
52.	Edward Elgar Publishing	01 (0.09)	BY-NC-ND	English
53.	Fordham University Press	01 (0.09)	BY-NC-ND	English
54.	Leiden University Press	01 (0.09)	BY-NC-ND	English
55.	Libraire Droz	01 (0.09)	BY-NC-ND	French
56.	Liverpool University Press	01 (0.09)	BY-NC-ND	English
57.	Newfound Press	01 (0.09)	BY-NC	English
58.	Orient Blackswam	01 (0.09)	BY-NC-ND	English
59.	PETER LANG LTD International Academic Publishers	01 (0.09)	BY-NC	English
60.	Projectverlag	01 (0.09)	BY-ND	German
61.	Purdue University Press	01 (0.09)	BY-NC	English
62.	R. Valent	01 (0.09)	BY-NC-ND	Russian
63.	Rodopi	01 (0.09)	Rodopi	English
64.	SciELO Books - Editora Fap-Unifesp	01 (0.09)	BY-NC-SA	Portuguese
65.	SciELO Books - EDUEM	01 (0.09)	BY-NC-SA	Portuguese
66.	SciELO Books - ReBentos	01 (0.09)	BY-NC-SA	Portuguese

67.	Springer Science + Business Media	01 (0.09)	BY-NC	English
68.	Taylor & Francis	01 (0.09)	BY-NC-ND	English
69.	Transcript-Verlag	01 (0.09)	BY-NC-ND	English
70.	Turia und Kant	01 (0.09)	BY-NC-ND	German
71.	UCL Press	01 (0.09)	BY-NC-ND	English
72.	Universidad Carlos III de Madrid Figuerola Institute of Social Sciences History	01 (0.09)	BY-NC-ND	Spanish
73.	Universidad Nacional de La Plata	01 (0.09)	BY-NC-ND	Spanish
74.	University of California Press	01 (0.09)	BY-NC-SA	English
75.	University of Rochester Press	01 (0.09)	University of Rochester Press	English
76.	Wageningen Academic Publishers	01 (0.09)	BY-NC-ND	English
Total		1052		

Table 5. Language-wise distribution of e-books

S. No.	Language	No. of e-books (%)
1.	English	800 (76.04)
2.	Portuguese	118 (11.21)
3.	German	95 (9.03)
4.	Italian	17 (1.61)
5.	French	08 (0.76)
6.	Dutch	04 (0.38)
7.	Spanish	04 (0.38)
8.	English, German (Bilingual)	03 (0.28)
9.	Finnish	02 (0.19)
10.	Russian	01 (0.09)
Total		1052

Table 6. Year-wise distribution of e-books

S. No.	Year of publication	No. of e-books (%)
1.	>2000	34 (3.23)
2.	2000	04 (0.38)
3.	2001	06 (0.57)
4.	2002	06 (0.57)
5.	2003	10 (0.95)
6.	2004	12 (1.14)
7.	2005	14 (1.33)
8.	2006	30 (2.85)
9.	2007	15 (1.42)
10.	2008	28 (2.66)
11.	2009	34 (3.23)
12.	2010	42 (3.9)
13.	2011	41 (3.89)
14.	2012	48 (4.56)
15.	2013	66 (6.27)
16.	2014	182 (17.3)
17.	2015	381 (36.21)
18.	15 th May 2016	99 (9.41)
Total		1052

Table 7. Authorship trends in e-books

S. No.	No. of authors	No. of e-books (%)
1.	Single	356 (35.10)
2.	Two	336 (33.13)
3.	Three	174 (17.15)
4.	Four	97 (9.56)
5.	Multi	51 (5.02)
Total		1014

Table 8. Editor trends in e-books

S. No.	No. of editors	No. of e-books (%)
1.	Single	09 (22.5)
2.	Two	18 (45)
3.	Three	07 (17.5)
4.	Four	05 (12.5)
5.	Multi	01 (2.5)
Total		40

Two books have both authors as well as editors.

7.7. Authorship Trends in E-books

Table 7 shows the authorship trends in e-books which define the multi-authors percentages.

7.8. Editor Trends in E-books

Table 8 shows the authorship trends in e-books which define the multi-editors percentages.

8. FINDINGS OF THE STUDY

Following are the findings/observations made:

- There are 1052 e-books indexed on Science and Technology in DOAB till May 15, 2016
- Maximum, i.e., 473 (44.66%) e-books are on health sciences
- About 500 (47.52%) e-books have BY-type of creative commons license

- (d) Frontier Media SA is the dominant publisher in the field of health sciences which has BY-type license and publishes e-books in English only
- (e) 800 (76.04%) e-books publish in English only
- (f) 381 (36.21%) e-books published in 2015 alone
- (g) 356 (35.11%) e-books are single-authored.

9. SUGGESTIONS

Following are the suggestions made:

- (a) Authors and publishers both should come forward to make open access movement a successful one. They should publish in open-access and adopt creative commons license
- (b) Proper facilities and infrastructure should be provided in the library to maximise the usage of free e-books
- (c) Link of DOAB should be provided in the libraries' websites
- (d) Authors' should encourage to publish in open access domains
- (e) In-depth indexing and minimising the errors in DOAB metadata will certainly increase its usage.

10. CONCLUSIONS

Open Access Initiatives have accelerated the growth of openly accessible content in form of e-journals and e-books. Open access movement has also increased the visibility of research and thereby increasing the impact. There are approximately more than 5000 e-books in DOAB and the number of e-books is increasing every day. To promote open access, copyright and plagiarism issues should be addressed properly. Various forums are available to discuss all these issues.

REFERENCES

1. <https://en.wikipedia.org/wiki/E-book> (accessed on 26 June 2016).
2. <http://www.merriam-webster.com/dictionary/e-books> (accessed on 26 June 2016).
3. Loan, F.A. Open access e-book collection on Central Asia in selected digital archives. *Collec. Buil.*, 2010, **30**(2), 773–85.
4. <http://dx.doi.org/10.1108/01604951111146965> (accessed on 29 June 2016).
5. DOAB Press release. <http://project.oapen.org/index.php/news/46doabpressrelease>. (accessed on 29 June 2016).
6. <http://oaspa.org/member/oapen-foundation/> (accessed on 29 June 2016).
7. Snijder, R. Better Sharing Through Licenses? Measuring the influence of creative commons licenses on the usage of open access monographs. *J. Lib. Schol. Comm.*, 2015, **3**(1), 1-20. <http://jlsch-pub.org/articles/abstract/10.7710/2162-3309.1187/> (accessed on 1 August 2016).
8. <http://www.doabooks.org/> (accessed on 29 June 2016).
9. Anuradha, K.T. & Usha, H.S. E-books access models: An analytical comparative study. *Electronic Library*, 2006, **24**(5), 662-79. <http://dx.doi.org/10.1108/02640470610707268> (accessed on 29 June 2016).
10. Sahu, Surendra Kumar & Arya, Satish Kumar. Open access practices in India. *Library Hi Tech News*, 2013, **30**(4), 6-12. <http://dx.doi.org/10.1108/LHTN-03-2013-0011> (accessed on 29 June 2016).
11. Loan, F.A. & Rafhat-un-nisa. Open access e-books in science and technology: A case study of directory of open access books. *DESIDOC J. Lib. Infor. Tech.*, 2015, **35**(4), 304-09. <http://publications.drdo.gov.in/ojs/index.php/djlit/article/view/8494> (accessed on 5 May 2016).
12. Dhanavandan, S. & Tamizhchelvan, M. Availability of open access books in DOAB: An analytical study. *DESIDOC J. Lib. Info. Tech.*, 2016, **36**(2), 79-87. <http://publications.drdo.gov.in/ojs/index.php/djlit/article/view/9440/> (accessed on 5 May 2016).
13. Dhanavandan, S. A global analysis of open access books: A study based on directory of open access books. *Inter. J. Knowl. Content Tech.*, 2016, **6**(1), 85-103. http://ocean.kisti.re.kr/download/volume/rikcdt/JSKTBN/2016/v6n1/JSKTBN_2016_v6n1_85.pdf (accessed on 14 Nov. 2016).
14. <https://creativecommons.org/share-your-work/licensing-types-examples/licensing-examples/> (accessed on 29 June 2016).

CONTRIBUTORS

Ms Vanita Khanchandani is working as Assistant Librarian at Central Library, IIT Delhi. Prior to joining IIT Delhi she worked as STA'B' at Defence Institute of Psychological Research (DIPR), DRDO, Ministry of Defence, Delhi. She holds Bachelor degree in Botany Honours, Bachelor of Education (B.Ed.), BLISc & MLISc. She is recipient of Gopala Krishan award for being topper in BLISc and also recipient of Prof. S. Dasgupta Memorial Gold Medal for being topper in MLISc. Her areas of interest includes: Marketing of LIS products and services, open access and e-learning.

Mr Moveen Kumar is working as Professional Assistant at Central Library, Jawaharlal Nehru University, New Delhi. He has qualified UGC-NET (LIS) examination and has MPhil. in Library and Information Science. He holds Bachelor degree in Arts (Geography Honours), BLISc & MLISc from University of Delhi.