

Scientometric Analysis of D-Lib Magazine Journal: 2010-2016

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***Abstract** - This is a scientometric study of Dlib journal from 2010 to 2016. From this period 244 papers are analyzed from the volume 16 to 22 of this journal. It is a very much important journal for the digital library users. It is also description of objectives , methodology of this journal. This scientometric study is about how many articles are there from this period, author pattern, year wise distribution, number of tables, graphs, contribution of the institutions etc. Scientometric study unfold all the details of this journals, it may be very helpful for the researchers for further research.*

Key Words: Scientometric studies, Library science, Digital Library, Library, Dlib magazine, DARPA.

Introduction:

Dlib Magazine is a database which is focus on digital library overall. It was available from July 2015 to 2017 but this journal is now suspended its routing publication by corporation for national research initiatives. It has more than 1000 articles, calls, shorter pieces and lots of digital collection in its 265 issues. Dlib Magazine is very much fruitful for the digital library researchers because it is all about digital collections. Dlib Magazine was sponsored by the "Defense Advanced Research Project Agency (DARPA). It is an open access journal, so users are easily get access for their materials. Crossref, and Hesburgh Libraries at University of Notre Dame are the long time partners for this journal. This article is about the scientometric study of Dlib Journal from 2010 to 2016.

Objectives: The objectives of this study is given below:

1. Distributions and contributions of the relevant journals per year wise.
2. To identify collaborative pattern to find the average length of papers.
3. Number of tables, photographs, and diagrams used in the articles.
4. Distribution of major prolific author's paper is in subject & location wise.
5. Authorship pattern of articles and collaboration coefficient.
6. To estimate the annual growth rate (AGR) of articles.

Methodology:

Specifically, the study concentrated on the Scientometric analysis is one of the most widely used methods in library and information science research. The present study is an attempt to make it update by studying Vo. 16 to 22, 2010-2016. Thirty two issues of seven volumes have been selected for the study. The analysis includes 244 research articles. Information about each contribution such as author, author's affiliation, length of contributions, number of tables, photographs, diagram and graphs etc., was scanned, checked and examined carefully.

Analysis of papers in Dlib -Magazine

Table-1 Number of article year wise distribution

S.no	Year	Vol	No of papers	%(n=244)
1	2010	16	29	11.89
2	2011	17	32	13.12
3	2012	18	31	12.70
4	2013	19	31	12.70
5	2014	20	41	16.80
6	2015	21	48	19.68
7	2016	22	32	13.12
			244	100

In this section is about No. of distribution of papers year wise. Table No. 1 Shows that total 244 papers have been published during 2010 to 2016, in which Maximum No. of Paper published in 2015 i.e. 48(19.68%). Equal number of paper published in 2011 & 2016 i.e.32 (13.12%), similarly in 2012 & 2013 i.e. 31(12.70%). And minimum 29 paper were published in 2010 i.e. 11.89%.

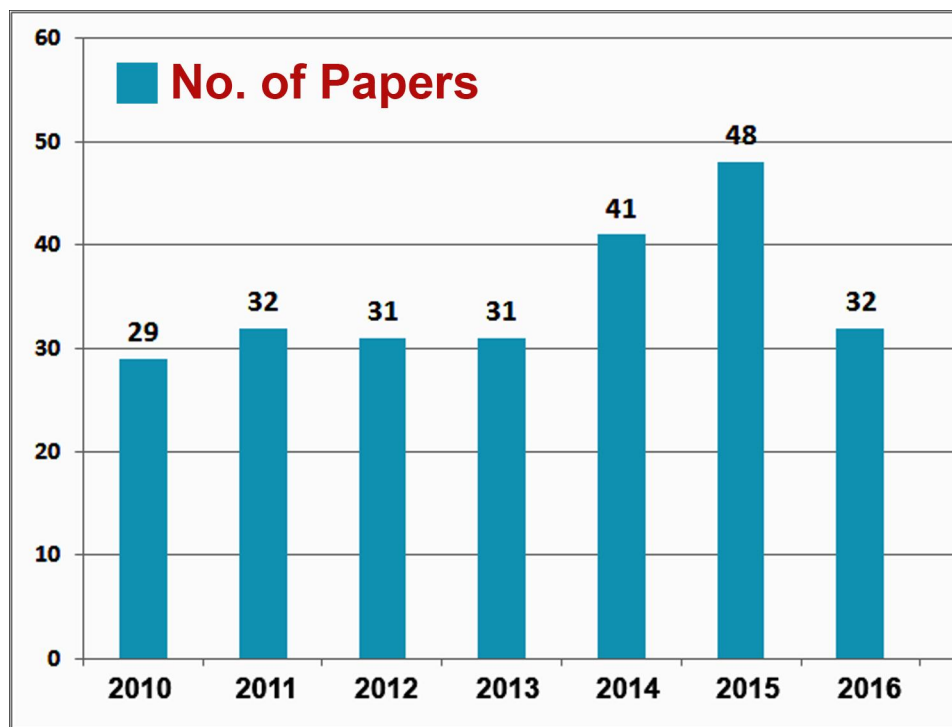


Table 4- Authorship pattern

S.no	Year	One author	Two author	Three author	Four author	Five & above	Total	%
1	2010	7	9	6	2	5	29	11.89
2	2011	12	10	4	4	2	32	13.12
3	2012	10	5	6	4	6	31	12.70
4	2013	10	9	7	1	4	31	12.70
5	2014	9	11	10	5	6	41	16.80
6	2015	13	12	12	5	6	48	19.68
7	2016	9	9	3	3	8	32	13.12
		70 (28.6%)	65 (26.6%)	48 (19.6%)	24 (9.7%)	37 (15.5%)	244	100

According to analysis of paper in ALIS 2010 has 29 no. of total authors, i. e 7 no. of one author, 9 no. of two authors, 6 no. of three authors, 2 no. of four authors, 5 no. of five and above authors, i.e. 11.89%. Similarly, in 2011 the total no. of authors is 32, i.e. 12 no. of one author, 10 no. of two authors, 4 no. of three authors, and 4 no. of 4 authors, 2 numbers of five & above authors. Likely, 2012-2016, the total number of one to five and above authors are 31, 31,41,48,32, that is one author-10, 10, 9, 13 and 9, two authors- 5, 9, 11, 12 and 9, three authors-6, 7, 10, 12, 3, four authors-4, 1, 5, 5 and 3, five and above are 6, 4, 6, 6 and 8 of 12.70%, 12.70%, 16.80%, 19.68% and 13.12% respectively

Table3- Number of tables, photographs, graphs in article

S.no	Year	Table	Photograph	Graphs	Total	Percentage (%)
1	2010	48	118	14	180	15.50
2	2011	26	72	24	122	10.50
3	2012	29	85	6	120	10.32
4	2013	42	45	38	125	10.75
5	2014	54	83	41	178	15.31
6	2015	93	137	49	279	24.01
7	2016	32	70	56	158	13.61
		324	610	228	1162	

The table3 shows use of tables, photographs, diagrams, and graphs in article. Table are the most prominent from of presentation in articles, 324 tables have been used in the articles during the period. Graphs follow 228 in number during the period. More photographs have been used in Dlib Magazine journal during this period. i.e. 610. In average 1.33 tables has been use in per article, average 2.5 photographs has been used per article and 0.94 graphs has been use per article in Dlib during this period.

Table 2- length of article

S.n	Year/vol	1-3	4-6	7-9	10-12	13-15	15 & above	Total	%
1	2010/16	0	9	12	5	3	0	29	11.89
2	2011/17	4	8	11	5	3	1	32	13.12
3	2012/18	2	3	4	11	10	1	31	12.70
4	2013/19	0	5	7	10	7	2	31	12.70
5	2014/20	4	7	9	9	12	0	41	16.80
6	2015/21	3	4	10	15	13	3	48	19.68
7	2016/22	0	2	8	8	12	2	32	13.12
		13 (5.32%)	38 (15.57%)	61 (25%)	63 (25.81%)	60 (24.62%)	9 (3.68%)	244	100

According to analysis of length of articles, maximum papers of Dlib Magazine during 2010 to 2016 are 10-12 pages 63(25.81%) in length followed by 7-9 pages 61(25%). More than 15 pages account for 9 papers (3.68%). And Minimum No. of paper length found 1-3 pages 13(5.32%) only.

Location of papers: In this study, total 174 renowned Institutions contributed in last Five year and There are 66 institutions giving 2 or more articles. National Library of Australia and University of Illinois at Urbana-Champaign both are on the top with 06 papers. Followed by Cornell University and Los Alamos National Laboratory are with 05 frequency. There are 174 renowned institutions who have contributed in Dlib Magazine during this period of which 38 institutions have contributed 2 articles in Dlib- Magazine during this period.

SL.No	Affiliated /Universities, College, Research Institute	Total
1	National Library of Australia	6
2	University of Illinois at Urbana-Champaign	6
3	Cornell University	5
4	Los Alamos National Laboratory	5
5	German National Library	4
6	Griffith University, Australia	4
7	Know-Center GmbH, Austria	4
8	University of Warsaw, Poland	4
9	Victoria University of Wellington, New Zealand	4
10	Consiglio Nazionale delle Ricerche, Italy	3
11	Corporation for National Research Initiatives	3
12	Elsevier Labs, Concord, California	3
13	Harding University	3
14	KB / National Library of the Netherlands	3
15	KMi, The Open University	3
16	Knowledge Media Institute of The Open University, United Kingdom	3
17	Library of Congress	3
18	Metropolitan New York Library Council	3
19	Oak Ridge National Laboratory	3
20	OCLC	3
21	Old Dominion University	3
22	University of Alabama Libraries	3
23	University of California Berkeley, USA & National Institute of Informatics, Tokyo, Japan	3
24	University of Cambridge, UK	3
25	University of Colorado Anschutz Medical Campus	3
26	University of Houston Libraries	3
27	University of Massachusetts Amherst	3
28	Alexander Technological Educational Institute of Thessaloniki, Greece	2
29	Australian National Data Service (ANDS), Australia	2
30	British Atmospheric Data Centre, UK	2
31	British Library, UK	2
32	CERN and Humboldt-Universität zu Berlin	2
33	City University of New York	2
34	Dartmouth College, USA	2
35	Deakin University, Geelong, Australia	2
36	Duke University Libraries	2
37	DuraSpace	2
38	European Schoolnet (EUN), Belgium	2
39	Georgetown University	2
40	GESIS — Leibniz Institute for the Social Sciences, Germany	2
41	Graz University of Technology, Austria	2
42	Humboldt University, Berlin	2
43	Indiana University	2
44	Institute of Science and Technology Information of China	2
45	Knowledge Technologies Institute, Graz University of Technology, Graz, Austria	2
46	KU Leuven, Belgium	2
47	Leibniz Institute for Astrophysics Potsdam	2
48	Loughborough University	2
49	Mendeley Ltd., London, UK	2
50	Michigan State University	2
51	National Center for Atmospheric Research (NCAR)	2
52	National Library of Finland, Centre for Preservation and Digitization	2
53	Renaissance Computing Institute (RENCI)	2
54	Rice University	2
55	Rutgers University	2
56	Smithsonian Institution	2
57	Stanford University	2

58	The MITRE Corporation	2
59	The University of Tokyo	2
60	University of California San Diego	2
61	University of Denver	2
62	University of Michigan	2
63	University of Missouri	2
64	University of South Florida	2
65	University of Tsukuba, Japan	2
66	Wayne State University	2
	Total	174

Prolific Contributors: In this study, total 570 authors contributed in last Five year and so the frequency of the authors are 570. There are 70 authors producing 2 or more articles. Roman Kern, Petr Knoth and Paolo Manghi are top in the list with 5 articles. In total 6 authors have contributed 4 papers each, 9 authors have contributed 3 papers each. 2 papers have been contributed by 52 authors. In total there are 70 names in the list contributing 2 or more papers in Dlib Magazine. The names of other individual contributors are not listed.

Sl. No	Author	Frequency	Percentage
1	Roman Kern	5	28.5
2	Petr Knoth	5	28.5
3	Paolo Manghi	5	28.5
4	Rose Holley	4	22.8
5	Robert B. Allen	4	22.8
6	Michael L. Nelson	4	22.8
7	Łukasz Bolikowski	4	22.8
8	Joachim Schöpfel	4	22.8
9	Drahomira Herrmannova	4	22.8
10	Christopher G. Stahl	3	17.1
11	David Massart	3	17.1
12	Stefan Klampfl	3	17.1
13	Robert M. Patton	3	17.1
14	Peter Murray-Rust	3	17.1
15	Jody L. DeRidder	3	17.1
16	Jack C. Wells	3	17.1
17	James E. Powell	3	17.1
18	Chern Li Liew	3	17.1
19	Alessia Bardi	2	11.4
20	Bela Gipp	2	11.4
21	Bernadette Houghton	2	11.4
22	Bernhard Haslhofer	2	11.4
23	Carl Lagoze	2	11.4
24	Carole L. Palmer	2	11.4
25	Chen Ling	2	11.4
26	David Pearson	2	11.4
27	Dominika Tkaczyk	2	11.4
28	Donatella Castelli	2	11.4
29	Elena Shulman	2	11.4
30	Ge Peng	2	11.4
31	Hélène Prost	2	11.4
32	Herbert Van de	2	11.4

Sl. No	Author	Frequency	Percentage
36	Jessica Adamick	2	11.4
37	Jinfang Niu	2	11.4
38	Joan E. Beaudoin	2	11.4
39	Justin F. Brunelle	2	11.4
40	Kalev H. Leetaru	2	11.4
41	Kris Jack	2	11.4
42	Leonardo Candela	2	11.4
43	Linn Marks Collins	2	11.4
44	Marc Bertin	2	11.4
45	Markus Michael Geipel	2	11.4
46	Martin Doerr	2	11.4
47	Martin Klein	2	11.4
48	Matthew S. Mayernik	2	11.4
49	Michalis Gerolimos	2	11.4
50	Michele C. Weigle	2	11.4
51	Natalia Manola	2	11.4
52	Natasha Simons	2	11.4
53	Pasquale Pagano	2	11.4
54	Petr Přidal	2	11.4
55	Qiao Xiaodong	2	11.4
56	Rebecca Reznik-Zellen	2	11.4
57	Richard Smith-Unna	2	11.4
58	Robert Sanderson	2	11.4
59	Ron Daniel	2	11.4
60	Ruth Duerr	2	11.4
61	Sally Vermaaten	2	11.4
62	Sam Searle	2	11.4
63	Santi Thompson	2	11.4
64	Simeon Warner	2	11.4
65	Theo van Veen	2	11.4
66	Thomas E. Potok	2	11.4
67	Thomas Padilla	2	11.4

	Sompel						
33	Iana Atanassova	2	11.4	68	Trevor Owens	2	11.4
34	Jan Brase	2	11.4	69	Vetle I. Torvik	2	11.4
35	Jefferson Bailey	2	11.4	70	Yao Changqing	2	11.4

Conclusion: This is a scientometric study of Dlib magazine from 2010 to 2016. From this study we can find out that this is a very much important magazine for digital library researchers. Many researchers search digital library documents from this journal. Because it is an open library journal so it is easy to access every user. 244 papers were analysed for this study, this is a total description of author pattern, participation of institutions. More than 9 institutions are the highest contribution papers and Roman Kern, Petr Knuth and Paolo Manghi 5 times write his paper during this period. Most of the papers are multi-author contributions and all are most fruitful for digital library research.

Reference:

1. Paliwal, Sangeeta(2015), Scientometric Analysis of Annals of Library and Information Studies (ALIS): 2009-2013. International Journal of Research in Library Science;1,1:8-19.
2. Kumar, K, "A Scientometric Study of Digital Literacy in Online Library Information Science and Technology Abstracts (LISTA)" (2014). Library Philosophy and Practice (e-journal). 1044.
3. Kumar Saini, Pawan(2014), Application of Scientometric Analysis in Library Net Work: A Comprehensive Study.3,9:11-15.
4. Kumar Singh, Jayendra(2014), A Scientometric analysis of "Indian Journal of Pure and Applied Physics" (2006-2010): A study based on Web of Science, Research Journal of Library Sciences.291):7-12.
5. Velmurugan, C and Radhakrishnan, N, Indian Journal of Biotechnology: A Bibliometric study. Innovare journal of sciences.4(1).
6. Velmurugan, C. & Radhakrishnan, N. (2015). Webology journal: a scientometric profile. International Journal of Information Dissemination and Technology, 5(2), 137-142.
7. Velmurugan, Chandran and Radhakrishnan, Natarajan, (2016) Malaysian Journal of Library and Information Science: A Scientometric Profile, Journal of scientometric research, 5(1).
8. Davarpanah, M. R & Aslekia, S(2007), A scientometric analysis of international LIS journals: Productivity and characteristics, Jointly published by Akadémiai Kiadó, 10.1007/s11192-007-1803-z.
9. S, Vivekanandhan, K, Sivasamy and Narayanan, A.L.(2016), Pollution Control Research Output in India from Scopus Database: A Scientometric Analysis, International Journal of Advanced Library and Information Science, 4(2).
10. Boell, Sebastian K. A Scientometric Method to analyse scientific journals as exemplified by the area of information science, 2007 Master Thesis thesis, Saarbrücken : Saarland University. [Thesis].
11. Gayatri Paul and Swapna Deoghuria(2014), Indian Journal of Physics: A scientometric analysis, 10th International Conference on Webometrics, Informetrics and Scientometrics & 15th COLLNET Meeting, 209-216.
12. Ronaldo F. Araujo and Marlene Oliveira(2015) Technological Basis for Information Science in Brazil: A Scientometric Study, Qualitative and Quantitative Methods in Libraries (QQML) Special Issue Bibliometrics and Scientometrics:231- 241, 2015.

