

D-Lib Magazine: A Bibliometric Study

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Abstract

This paper examines the articles published in on-line D-Lib magazine for authorship trend, contribution of teaching and professional, country-wise contribution, degree of collaboration and productivity within different facets of digital/electronic libraries. The study carried out for this paper found that collaborative research is given priority over solo research. The degree of collaboration is found to be 0.625. The study further reveals more contribution reveals that most of the contribution comes from the USA and Germany while facet-wise distribution of articles depicts that most of the articles cover digital libraries and preservation followed by metadata/ cataloguing.

Keywords: Bibliometrics; Digital libraries; D-Lib magazine.

Introduction

Studies of publication pattern, also known as bibliometric or quantitative studies are useful indicators of scientific productivity, trends, emphasis of research in various disciplines and researchers preference for publication. It reveals interesting information about knowledge producers and their interactions. Authorship of a paper has become important for scientists and researcher and understandably it has become an important area of study and debate in recent years. Articles published in scholarly journals, including those in the library and information sciences reflect changes in the interests and concern of their author constituencies and the discipline and can be documented through bibliometric analyses of journal content. There are thousand of journals devoted to the field of library and information science.

Although sizeable work on bibliometrics has been carried out in the field of library and information science, there has been little effort towards bibliometric analysis of on-line journals. Thus the present study chose D-Lib magazine for bibliometric analysis.

D-Lib Magazine

D-Lib Magazine is a solely electronic publication with a primary focus on digital library research and development, especially for new technologies, applications, and contextual social and economic issues. The magazine is currently published six times in a year. The full contents of the magazine, including all back issues, are available free of charge at the D-Lib web site (<http://www.dlib.org/>) as well as multiple mirror sites around the world. *D-Lib Magazine* is produced by Corporation for National Research Initiatives (CNRI). Before April 2006, the magazine was sponsored by the Defense Advanced Research Project Agency (DARPA) on behalf of the Digital Libraries Initiative under Grant No. N66001-98-1-8908, and by the National Science Foundation (NSF) under Grant No. IIS - 0243042. Currently, the magazine is supported by the D-Lib Alliance.

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Objective of the Study

The following objective are laid down for the study:

- To assess authorship pattern;
- To determine the degree of collaboration among the authors;
- To find Year wise contribution of articles;
- To find country wise distribution of contributors; and
- To study distribution of papers over various facets of digital/electronic libraries.

Methodology

The data base for the present study comprises 368 articles published in D-Lib magazine from Jan 2000 to December 2007. Each article is evaluated for number of authorship, nature of the authors work, subject of the article and author's country affiliation. All the relevant data is arranged systematically supported with tables.

Results and Discussion

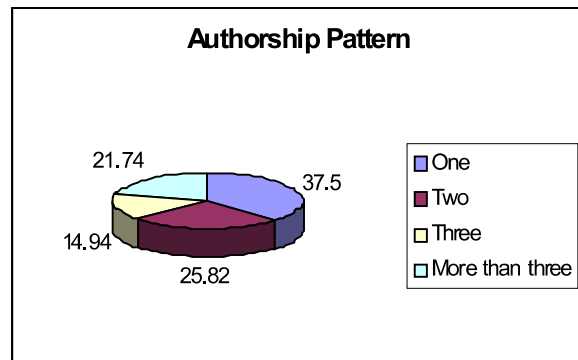
The authorship pattern was analyzed to determine the percentage of single and multi-authorship is denoted in Table 1.

The results depict that majority of papers are multi-authored. Articles having single authors constitute only 37.5 % of the total paper, followed by 25.82 % by two authors, 21.74% by more than three authors respectively. Papers having three authors constitute 14.94%. Thus it clearly brings out collaborative research in the field.

Table 1: Authorship Pattern of Articles in D-Lib Magazine

Number of authors	Number of papers	percentage
One	138	37.5
Two	95	25.82
Three	55	14.94
More than three	80	21.74
Total	368	100

Figure 1: Authorship Pattern



Degree of Collaboration in D-Lib Magazine

The formula given by K Subramanyam is useful for determining the degree of collaboration in quantitative terms. The study followed the same formula which is mathematically put as:

$$C = \frac{NM}{NM + NS}$$

Where C = Degree of Collaboration

NM = Number of Multi authored papers

NS = Number of single authored papers.

In the present study

NM = 230

NS = 138

Thus C = 0.625

Thus the degree of collaboration in D-Lib magazine is 0.625 which clearly indicates its dominance upon individual contribution.

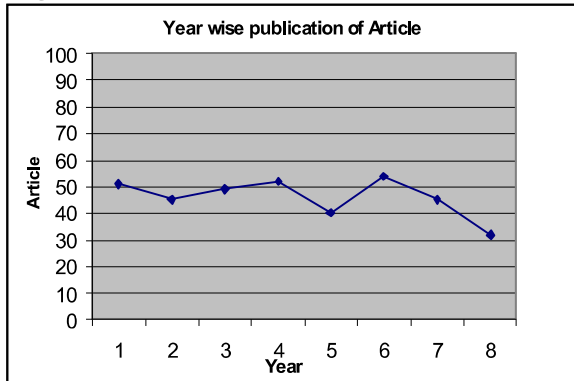
Year wise Publication of Article

The year- wise publication has been provided in the following Table 2.

Table 2: Year wise Publication of Article

Year	Total no of Articles	Percentage
2000	51	13.85
2001	45	12.22
2002	49	13.31
2003	52	14.13
2004	40	10.86
2005	54	14.67
2006	45	12.22
2007	32	8.69
Total	368	100

Figure 2: Year wise Publication of Article



1 – 2001, 2 – 2002, 3-2003, 4-2004, 5-2005, 6-2006, 7-2007 , 8-2008.

Table 3: Geographical Distribution of Papers

Sl.No	Country	No. of Articles
1	USA	246 (66.85)
2	UK	62 (16.85)
3	GERMANY	10 (2.7)
4	SPAIN	6 (1.6)
5	MULTINATIONAL	11 (2.9)
6	NEW ZEALAND	5 (1.36)
7	AUSTRALIA	9 (2.45)
8	CHINA	4 (1.08)
9	NETERLANDS	4 (1.08)
10	NORTH AFRICA	3 (0.81)
11	CANADA	2 (0.54)
12	BRAZIL	2 (0.54)
13	SWEDEN	1 (0.27)
14	AUSTRIA	2 (0.54)
15	India	1 (0.27)
	Total	368 (100)

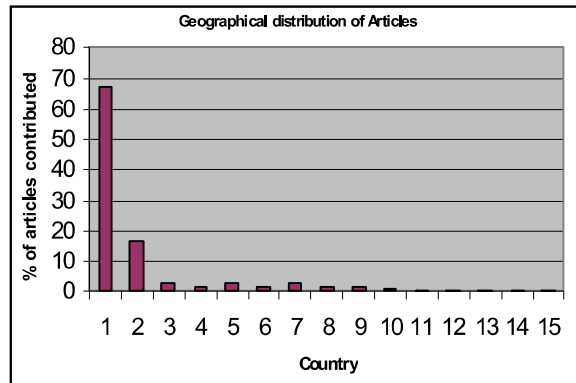
Table 2 shows that the highest Publication is in 2005 with 54 publications followed by 52 papers in 2003 and 51 papers in 2000. The lowest publication is 32 papers in 2007.

Geographical Distribution of Papers

Table 3 presents the Geographical distribution of Papers.

Table 3 indicates that most of the articles (66.85%) are contributed by USA followed by UK (16.85%) and Germany (10%). There is no contribution from Asian countries Except China and India which has contributed four papers (1.08%) and India has contributed one paper (0.27%) during the stipulated period.

Figure 3: Geographical Distribution of Papers



1. USA, 2. UK, 3. Germany, 4. Spain, 5. Multinational, 6. New Zealand, 7. Australia, 8. China, 9. Netharland, 10. North Africa, 11. Canada, 12. Brazil, 13. Sweden, 14. Austria, 15. India.

Facet-wise Distribution of Articles

Facet-wise Distribution of Article is given in the following table.

It is evident that most of the articles (48.45%) cover digital libraries and preservation followed by metadata / cataloguing (12.24%) and databases / software (9.86%) respectively. The other facets together constitute 19.15% percent.

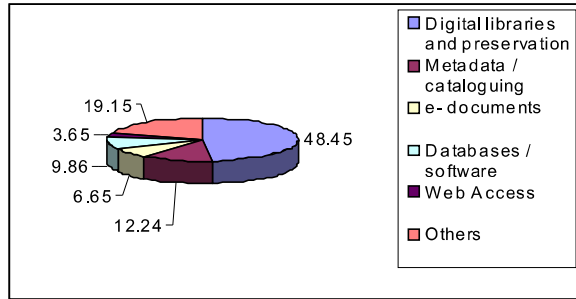
Conclusion

The trend towards collaborative research is gaining currency day by day. Now- a-days each and every work of researcher depends purely on the library because it contains more sourceable data. The research in the field of library and information science has become a collective entity wherein more and more researchers help to make it innovative. The result depict that the journal is dominated by the host country (USA) as most of the articles

Table 4: Facet-wise Distribution of Article

Subject Area	Percentage of Article
Digital libraries and preservation	48.45
Metadata / cataloguing	12.24
E- documents	6.65
Databases / software	9.86
Web Access	3.65
Others	19.15
Total	100

Figure 4: Facet-wise Distribution of Articles



are contributed by the professionals from USA. The results further reveal that the journal is wholly and solely devoted to digital / electronic libraries and its associated facets.

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