MAPPING OF LITERATURE ON 'DIGITAL LIBRARY' BY J-GATE DATABASE

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Abstract - *The present study discusses the "Digital Library" as reflected in J-Gate for the period from 2008 to 2017. The present paper investigates the highly productive authors, Country wise, Publication, Year wise, Research area wise, Source Title or Journal wise. The result indicates that there were total 1521 documents on digital library during 2008 to 2017. At the international front, India's contribution to Digital Library is 205 documents during 2008 to 2017 which is rank on Third.*
Keywords: J-Gate, Digital Library

1. Introduction

Digital Libraries are an evolving area of research; Digital libraries defined as electronic information collections containing large and diverse repositories of digital objects, which can be accessed by a large number of geographically distributed users. Such repositories would exist in locations physically near or remote from the users. Digital objects include text, images, maps, sound, videos, catalogues, scientific and government data sets as well as hyper textual multimedia compositions of such element. Therefore considering the importance of Digital Library the study is taken for research purpose.

2. Conceptual Analysis:

1.1 Digital Library

According to William Arms an informal definition of a digital library is a managed collection of information, with associated services, where the information is stored in digital formats and accessible over a network.

2.2 J-Gate

J-Gate is an electronic gateway to global e-journal literature. Launched in 2001 by Informatics India Limited, J-Gate provides seamless access to millions of journal articles available online offered by 13,273 Publishers. It presently has a massive database of journal literature, indexed from 47,958 e-journals with links to full text at publisher sites. J-Gate also plans to support online subscription to journals, electronic document delivery, archiving and other related services. a. Table of Contents (TOC) - For 47,958 e-journals. b. Database - A comprehensive searchable database with 53,067,286 articles, with 10,000+ articles added every day.

3. Objectives of the Study

1. To identify year wise articles published in J-Gate on Digital Library.

2. To find out highly productive authors on Digital Library.

3. To Know Geographical distribution of Digital Library articles.

4. To Get information writing of Research areas.

5. To know highly preferred journals by the Scientists for writing research papers on Digital Library.

6. Access availability of Digital Library articles in J-Gate database.

4. Scope & Limitation of Study

This Study is limited to search results on the 'Digital Library' in J-Gate database during 2008 to 2017.

5. Methods and Materials

The growth of publications in the 'Digital Library' was derived from the J-Gate during the period 2008 to 2017, a total of full text 1521 articles were found for the Title 'Digital Library'. Necessary data was tabulated into separate sheets in terms of highly productive authors, Country wise, Publication, and Year wise, Research area wise, Source Title or Journal wise.

6. Review of Related Literature

Kale Vilas A., Deshmukh Rahul K. & Khiste Gajanan P. (2017) discusses the "Consortia" as reflected in Web of Science for the period from 1989–2016. This study investigates the highly productive authors, Document Type wise, Country wise, Language wise, Publication year wise, Research area wise, Source Title or Journal wise. Khiste G.P. (2017) discusses the "Consortia" as reflected in Scopus for the period from 1989-2016. Khiste G.P. (2018) discusses the "Total Quality Management" as reflected in J-Gate for the period from 2003–2017. Khiste G.P., Deshmukh R.K.& Kale V.A. (2017) discusses the "Bibliometric" as reflected in J-Gate for the period from 2005 to 2016. Khiste G.P., Maske D.B.& Deshmukh R.K. (2018) discusses the "Knowledge Management" as reflected in Scopus for the period from 2007–2016. The result indicates that there were total 7996 documents on Knowledge Management during 2007 to 2016. At the international front, India's contribution to Knowledge Management is 298 documents during 2007 to 2016 which is rank on tenth. Khiste G.P.& Paithankar R.R.(2017) explained

"Bibliometric" as reflected in SCOPUS for the period from 2008–2016. Khiste G.P.& Paithankar R.R.(2017) discusses the "Bibliometric" as reflected in Web of Science for the period from 1989–2016. Khiste G.P.& Paithankar R.R.(2017) discusses the "Bibliometric" as reflected in Science Direct for the period from 2005 to 2016. Maske Dnyaneshwar B, Deshmukh Rahul K & Khiste Gajanan P.(2018) analysed the items on "Information Literacy" as reflected in J-Gate for the period from 2007 to 2016. Tekale K.U.,Veer D.K & Kadam Santosh D.(2017) discuss the productivity of popular articles made by the faculty of agriculture VNMKV, Parbhani for dissemination of agriculture information among the farmers. Tekale K.U., Veer D.K & Kadam Santosh D. (2017) discussed on the annual growth and distribution of documents , year wise citation analysis of documents published by faculty of Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani . Veer Chaitanya , Veer D. K. & Khiste Gajanan P.(2018) discusses the "Big Data" as reflected in Scopus for the period from 2012–2016 and investigates the highly productive authors, document types and h-index. The result indicates that there were total 9191 documents with 54129 citations on Big Data during 2012 to 2016. Veer D.K. & Khiste G.P.(2017) explained about the published documents and its citation from Agricultural Universities in Maharashtra during the period from 2004 to 2016 by Indian Citation Index (ICI) database. Veer D.K. & Khiste Gajanan P. (2017) discusses the "Digital Library" as reflected in Scopus for the period from 1995–

2016. Veer D.K. & Khiste Gajanan P. (2018) discusses the Information Literacy as reflected in Web of Science for the period from 1989–2016. Veer D.K., Khiste Gajanan P. & Deshmukh Rahul (2018) explained the term Information Literacy as reflected in SCOPUS during the period during 2007 to 2016.

7. Productive Authors:

The author has analysed the data related to productive authors and it is presented in the Table No. 1.

Table No.1
Top 5 Authors which wrote highest articles on the 'Digital Library'

Sr. No.	Author Name	No. of ...	Institute	Rank
1	H Frank Cervone	15	Purdue University Calumet, Hammond, Indiana, USA	1
2	Edward A Fox	13	Virginia Tech, , Blacksburg, USA	2
3	Dan Albertson	8	University of Alabama, Tuscaloosa, Alabama, USA,	3
4	Mehdi Alipour-Hafezi	8	Allameh Tabataba'i University (ATU), Tehran, Iran	3
5	Ali Shiri	7	University of Alberta, Canada	4
6	Donatella Castelli	7	Institute of Information Science and Technologies (ISTI), Italian National Research Council (CNR), Via G. Moruzzi, 1,	4

7	Iris Xie	7	56124 Pisa, Italy University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA	4
8	Xianjin Zha	7	Wuhan University, Wuhan, China	4
9	Yaghoub Norouzi	7	University of Qom; Iran	4
10	Leonardo Candela	6	Institute of Information Science and Technologies (ISTI), Italian National Research Council (CNR), Pisa, Italy	5
11	Qing Song Zhang	6	Jilin Agricultural University, Changchun, China	5

Table No.1 depicts highly productive authors. It is observed that H Frank Cervone from USA rank first who has contributed a maximum number of 15 articles, followed Edward A Fox from USA with 13 articles & on 5th rank the Leonardo Candela from Italy and Qing Song Zhang from China contributed 6 articles.

8. Geographical Distribution:

The data related to Digital Library articles has been analyzed by top five countries and presented it in the Table No. 2.

Table No.2
Digital Library: Top Five Country wise Analysis

Year	United States of America	United Kingdom	India	Netherlands	Germany	Total
2017	18	23	7	3	2	**53**
2016	32	33	20	5	7	**97**
2015	79	37	29	6	7	**150**
2014	54	43	32	19	15	**163**
2013	68	36	31	12	4	**151**
2012	53	44	36	7	16	**314**
2011	46	35	19	10	2	**112**
2010	45	48	16	14	13	**136**
2009	48	41	9	12	5	**248**
2008	58	47	6	24	19	**154**
Total	**501**	**387**	**205**	**112**	**90**	**1295**

Graph No.1

Table No.2 & Graph No.2 depicts the geographical distribution of articles. Among 1521 articles, United States of America tops the list with 501 articles, followed by United Kingdom with 387 articles to its credit, while India's contribution to Digital Library is 205 documents during 2008 to 2017 which is rank on Third and Germany published 90 articles with rank fifth positions.

9. Chronological Analysis:

The author has analysed the data related to Digital Library based publications chronologically during 2008 to 2017 presented in the Table No. 3.

Table No.3

Year wise Articles published in J-Gate on Digital Library

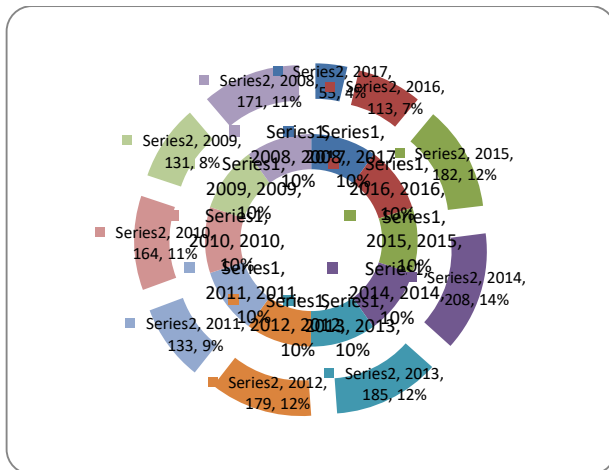| Sr. No.	Publication Year	Articles	Percentage
1	2017	55	3.62
2	2016	113	7.43
3	2015	182	11.97
4	2014	208	13.68
5	2013	185	12.16
6	2012	179	11.77
7	2011	133	8.74
8	2010	164	10.78
9	2009	131	8.61
10	2008	171	11.24
		Total=	100

Graph No.2

Year wise Articles published in J-Gate on Digital Library

Table No.3 & Graph No.2 shows that year-wise distribution of Articles. The highest number of articles was published in the year 2014 i.e., 208 (13.68%) and the next one with 185 (12.16%) articles was published in the year 2013 & lowest number of article 55 (3.62%) was published in the year 2017.

10. Research area wise Analysis:

The author has analyzed the compiled data of top -10 different types of Research Areas and presented it in the Table No. 4.

Table No.4
Analysis of Digital Library Articles by Top -10 Research area wise

Sr. no.	Research area	Articles	Rank
1	Information Science and Systems	297	1
2	Digital Libraries	287	2
3	Librarianship And Libraries	160	3
4	Information Sources, Services And Retrieval	146	4
5	Education & Careers	104	5
6	Computer Science (Hardware & Networks)	96	6
7	Electronics	71	7
8	Information Extraction, Retrieval And Filtering	64	8
9	Philosophy	62	9
10	Library Automation	58	10

Table No. 4 presents the Research Area wise categorization of the articles retrieved. Research Area wise analysis indicates that maximum number of contributions was in the area of Information Science and Systems i.e. 297 and on 10th rank in the area of Library Automation published 58 articles.

11. Highest ranking Journals:

The highest Ranking Journals in which documents the highest number of articles has been published on the term "Digital Library". The related information is being presented in the Table No.5..

Table No. 5

Highest ranking Journals

Sr. No.	Highest Ranking Journals	Articles	Rank
1	Electronic Library	60	1
2	Scout Report	50	2
3	International Journal on Digital Libraries	43	3
4	Proceedings of the American Society For Information Science and Technology	33	4
5	D-Lib Magazine	30	5

Table No. 5 indicates that highest ranking Journals in which articles was published; Electronic Library ranks first with 60 articles to its credit, followed by Scout Report ranking on second with 50 articles. D-Lib Magazine is on tenth rank with 30 articles.

12. Publication Access Type

Publication access type means type of category of articles whether articles are available Full Text or Non-Full Text through J-Gate Database is defined in Table No.6

Table No. 6

Digital Library Articles Access Type

Sr. No.	Access Type	Articles	Percentage
1	Full Text Access	951	62.52
2	Non-Full Text	570	37.48
	Total =	1521	100

Table No.6 shows that among total 1521 articles 951 (62.52%) articles are full text and 570 (37.48%) articles are Non-Full text.

13. Major Findings

Among 1521 articles, United States of America tops the list with 501 articles, while India's contribution to Digital Library is 205 documents during 2008 to 2017 which is rank on Third and Germany published 90 articles with rank fifth position.

H Frank Cervone from USA rank first who has contributed a maximum number of 15 articles and on 5th rank the Leonardo Candela from Italy and Qing Song Zhang from China contributed 6 articles.

Highest number of articles was published in the year 2014 i.e., 208 (13.68%) and lowest number of article 55 (3.62%) was published in the year 2017.

Research Area wise categorization of the articles retrieved. Research Area wise analysis indicates that maximum number of contributions was in the area of Information Science and Systems i.e. 297 and on 10th rank in the area of Library Automation published 58 articles.

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Conclusion

The data suggest that there was a significant research activity in the field of Digital Library during the study period. The contributions of by year on Digital Library indicate that there is healthy pattern of progress in this field. As per data retrieved, overall Digital Library H-index is 874, SJR is 874 and NAAS is 26.

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