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USING AND SEARCHING DIGITAL LIBRARY SERVICES FROM 1999 TO
2018:
A BIBLIOMETRIC ANALYSIS

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**Keyword: Digital Library, Authorship pattern, Year of publishing ,Citation ,Bibexcel ,
VOS viewer**

Abstract

Digital library proliferation and growth high progress in the multiple use of Information and Internet technology. Digital library and digital services and service are a significant tool use to provide innovative information services to all the users. Technology and Information has provided an Innovation platform for students. The study is based on the Bibliometric analysis. The data was collected from the Web of Sciencedatabase. The study of priority publishing year, authorship paten, types of articles, citation, countries, h-index. Bib excel too used to data analysis purpose. His vision for what scientist's should concentrate on in the post-war era was a to build system for information manipulation. The article discussed the importance of technology to help manipulate the entire world's knowledge, although the Meme proposed by Bush concentrated on local manipulation capabilities. A user could navigate a trail through materials of different types from different sources and record this trail for later use 2. Bibliometric analysis collaboration is accepted in the new interdisciplinary research. The Research is meaningful in the present exercise to focus on research contribution of higher educational Institution in India9.

Introduction

Digital library is a amusing information given to all category academic students and librarians. Academic library main scope teaching and learning and help in researcher .BETSY L. HUMPHREYS, MLS says linking the electronic health

record to the digital library is a Web-era reformulation of the long-standing informatics goal of seamless integration of automated clinical data and relevant knowledge-based information to support informed decisions. Technology was improved different pattern example school students project to researcher project up to. The Bib excel tool developed by OllePerson. Bib Excel is tool use in analyzing bibliographic data, or any data of a textual natural format. The following data was day today of help in all category people use of computing systems (desktop, laptop, palmtop, ipad, mobile devices, etc.,) and networking systems (LAN, Optical, Wi-Fi, cloud, etc.,).All the librarians preface that digital services and the utilization of library and the library staff would go out of their jobs opportunity. The Data was collected from Web of science database. The Database covered in Web of Science citation index database. The Web of science key word is "Digital Library" was use in the topic field 1999-2018. The result was 1934 was downloading in text file format. The Data was analysis and handling Bib excel tool was interdisciplinary approach the problem and get map from VOS viewer software.

Need for the study

The Digital library users are various age in using digital age. Information through digital libraries identified characteristics and more details are than IP address. The all-digital administration services are accessing in their services and improve to better services in next generation users. Duncan Hull^{1,2*}, Steve R. Pettifer^{2,3}, Douglas B. Kell^{1,2}. The range of libraries currently available on the Web is described below, starting with those that focus on specific disciplines (such as ACM, IEEE, and PubMed) through to libraries covering a broader range of scientific disciplines, such as ISIWOK and Google Scholar. The focus of this Review is largely about searching and organizing literature data together with their metadata. For reasons of space, we do not consider in any detail issues surrounding Open Access. Bruce R. Schatz A digital library, digital repository, or digital collection, is an online database of digital objects that can include text, still images, audio, video, or other digital media formats. Organized collections of scientific materials are traditionally called "libraries," and the searchable online versions of these are called "digital libraries" Judy Jeng, There are many different views in the Literature on what digital libraries. This paper does not intend to provide a comprehensive collection on the definition of the digital library. ROBERT MOSKOVITCH, SUSANA B. MARTINS, The study demonstrated usefulness of concept-based and context-sensitive queries for enhancing the precision of retrieval from a digital library of semi-structured clinical guideline documents. Concept-based searches outperformed free-text queries, especially when baseline precision was low. Digital library services have changed the way patrons seek and access the high-quality information traditionally found only in libraries. Many traditional print-based libraries now spend a significant portion of their budgets on online services. In addition, new organizations not accustomed to solving information needs are providing these digital library services.

Enquiries

Data was on 1999 to 2018 for all details given to Web of Science used the following questions.

- Find out the Quality of research done
- Find out the Author type
- Find out the Publication year
- Find out the Publication type
- Fine out the Authorship pattern
- Fine out the Citation and H-Index

Review of literature for Digital Library during 1999-2018

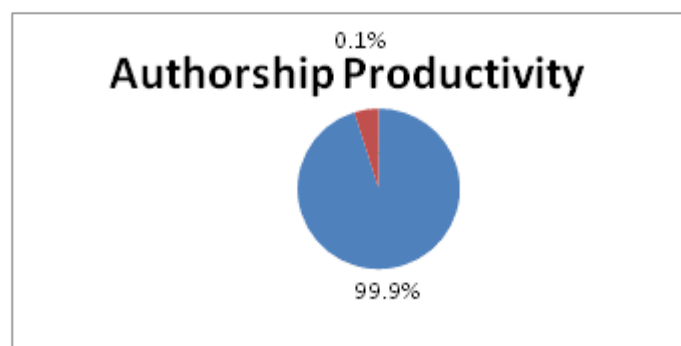
The Literature has been classified the table 1 figure year .Table 1 explain the publication year wise growth of Literature. Minimum Productivity occurred in the year 1999 with only 80 publications and this is 4.1%. Next year of 2000 contribution increase 122 of Publication with 6.3%, 2001 publication 87 and 4.5,2002the publication was 101 and 5.2% .The Total publication count 1934 and the productivity year of 2018 having 80 and 4.1%of the total output.The publication was up and down increase year to year.

Authorship paten of Digital Library Research

Research Impact of Individual research is measured in Journal and Article was analyzed the Authorship patent purpose. The authorship pattern or productivity is one of the important in the bibliometric analysis study. Most of the Single author written 1933 Articles and 99.9 % , and two authors written only one articles in 0.1% .In 1999 to 2018 year the authors was published total no of Articles are 1934 nos . The majority of author’s writing paper is only single authors in 1933 no of articles. The two authors are only one author written in one paper.

Table: 1

Authorship parten of Digital Library			
S.NO	Author	Articles	%
1	Single	1933	99.9
2	Two	1	0.1
		1934	100.0



Digital Library Research in Publication Year

Table 2 explain the distribution of the Digital Library research output according to publication year. The results are that almost of the scholarly statement of Bibliometric study is available in. In the Digital Library study, about 1934 Article Preceding paper published in 1999 to 2018. 80 and 4.1 % no of publication in 1999, 122 and 6.3% in 2000, 87 and 4.5% in 2001, 2001 to 2006 increase the publication above 100, 2007 to 2015 average 85 no of publication are published. In 1999 the cumulative frequency are 80 nos and cumulative percentage of 0.36%, In 2018 the cumulative frequency is 1836 and cumulative percentage is 14.43%.

Table: 1

Publication Year of Digital Library					
S.NO	Publication Year	No of Publication	%	Cumulative Frequency	Cumulative %
1	1999	80	4.1	80	0.36%
2	2000	122	6.3	204	0.93%
3	2001	87	4.5	291	1.33%
4	2002	101	5.2	392	1.80%
5	2003	115	5.9	507	2.33%
6	2004	165	8.5	672	5.28%
7	2005	133	6.9	805	3.70%
8	2006	125	6.5	830	3.82%
9	2007	78	4.0	908	4.18%
10	2008	96	5.0	1004	7.89%
11	2009	94	4.9	1098	8.63%
12	2010	90	4.7	1188	9.33%
13	2011	75	3.9	1263	9.92%
14	2012	83	4.3	1346	10.58%
15	2013	68	3.5	1414	11.11%
16	2014	94	4.9	1508	11.85%
17	2015	78	4.0	1586	12.46%
18	2016	83	4.3	1669	13.12%
19	2017	87	4.5	1756	13.80%
20	2018	80	4.1	1836	14.43%
	Total	1934	100.0	21720	100%

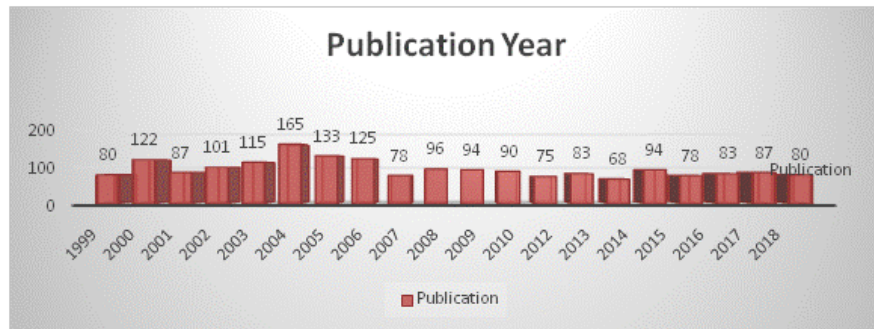
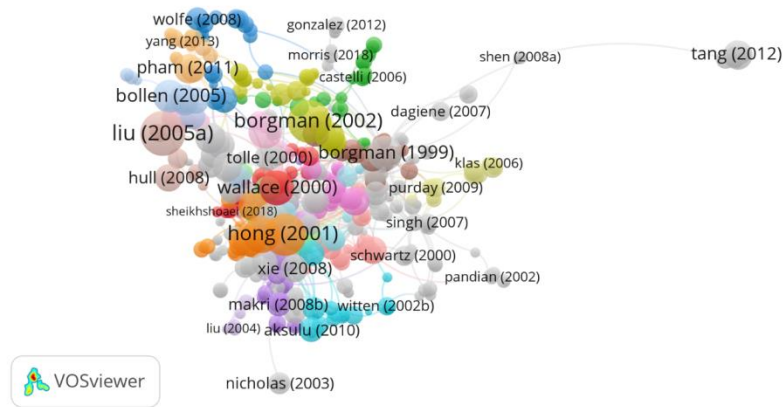


Image : 2

Year of Author Publication



Publication Type of Digital Library Research

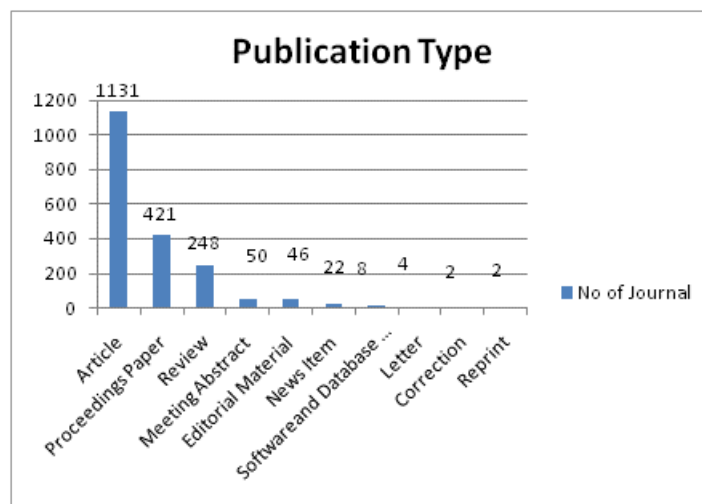
Table 3 explain the distribution of the Digital Library research output according to publication type. The results are that almost of the scholarly statement of Bibliometric study is available in. In the Digital Library study, about 1131 and 58.5% Article proceeding paper 421 and 21.8%, Review 248 and 12.8%. Meeting Abstract 50 and 2.6%. Editorial Material 46 and 2.4%. News Item 22 and 1.1%, Letter 4 and 0.2%, Correction and Reprint 2 and 0.1% also.

Table: 3

Publication Type of Digital Library			
Publication Type			
S.No	Publication Type	No of Records	%
1	Article	1131	58.5%
2	Proceedings Paper	421	21.8%
3	Review	248	12.8%
4	Meeting Abstract	50	2.6%
5	Editorial Material	46	2.4%
6	News Item	22	1.1%
7	Softwareand Database Review	8	0.4%
8	Letter	4	0.2%
9	Correction	2	0.1%
10	Reprint	2	0.1%
		1934	100%

Image: 3

Publication Type



Language wise Distribution of Digital Library

We can find table 4 Language type distribution Articles in Digital Library area. The Bib excels software very useful in author protectively of Digital Library. The total article no of 1934. The Article of mostly published in English language 1852 and 95.8%. Portuguese, Spanish, German 26, 23, 21 and average 1.2%. French 6 and 0.3%, other language is Dutch, Slovak, Czech, Italian, Polish all are common in 1 articles only.

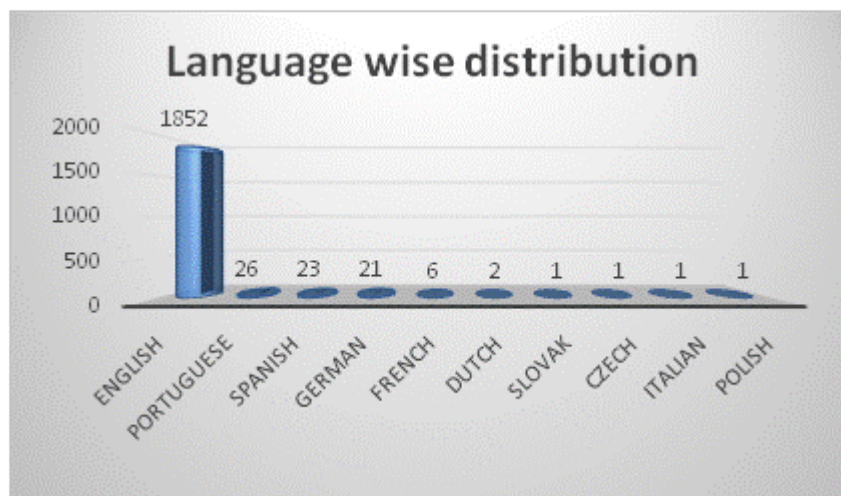
Table: 4

Language Wise Distribution Digital Library

Language Wise Distribution Digital Library			
Language Wise Distribution			
S.No	Language	No of Articles	%
1	English	1852	95.8%
2	Portuguese	26	1.3%
3	Spanish	23	1.2%
4	German	21	1.1%
5	French	6	0.3%
6	Dutch	2	0.1%
7	Slovak	1	0.1%
8	Czech	1	0.1%
9	Italian	1	0.1%
10	Polish	1	0.1%
	Total	1934	100%

Image :4

Language wise Distribution



Top Ten Publication of Digital Library

Table 5 distribution of the Digital Library research output according to publication. It is statement of top ten Publications the Researcher used Bib excel tool for to find out which journals the authors wants to publish. With the SO tag, we can we can find out the results. The 1934 articles are published in 645 Journals. Electronic Library 135 and 9.73%. The Research and Advanced Technology for Digital Libraries 93 and 6.71%. Information processing & Management 50 and 3.60%. Digital Libraries International Collaboration and cross Fertilization Proceedings 46 and 3.32%. Journal of the American Society for Information and Technology. Online Information Review 49 and 2.96%. Program Electronic Library and Information System 39 and 2.81%. Library HiTech 34 and 2.45%. Journal of Academic librarianship 33 and 2.38%

.Research and Advance technology for Digital Libraries Proceedings 31 and 2.24%. Therefore Bibliometric statement is being regularly made through subject journals.

Table: 5
Top Publishers

Top Ten Publishers of Digital Library			
S.No	Journal	Record	%
1	ELECTRONIC LIBRARY	135	9.73
2	RESEARCH AND ADVANCED TECHNOLOGY FOR DIGITAL LIBRARIES	93	6.71
3	INFORMATION PROCESSING & MANAGEMENT	50	3.60
4	DIGITAL LIBRARIES: INTERNATIONAL COLLABORATION AND CROSS-FERTILIZATION PROCEEDINGS	46	3.32
5	JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY	45	3.24
6	ONLINE INFORMATION REVIEW	41	2.96
7	PROGRAM-ELECTRONIC LIBRARY AND INFORMATION SYSTEMS	39	2.81
8	LIBRARY HI TECH	34	2.45
9	JOURNAL OF ACADEMIC LIBRARIANSHIP	33	2.38
10	RESEARCH AND ADVANCED TECHNOLOGY FOR DIGITAL LIBRARIES PROCEEDINGS	31	2.24
	Other all Journal	1387	100.00

Image: 5
Top Publishers

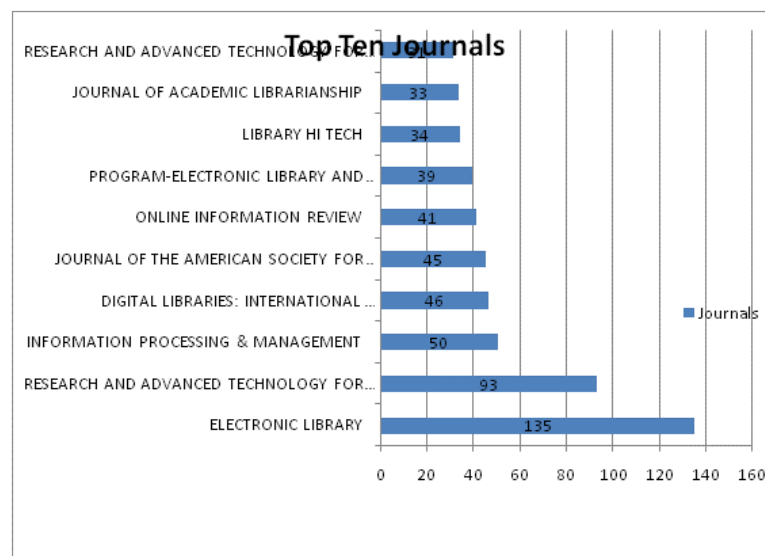
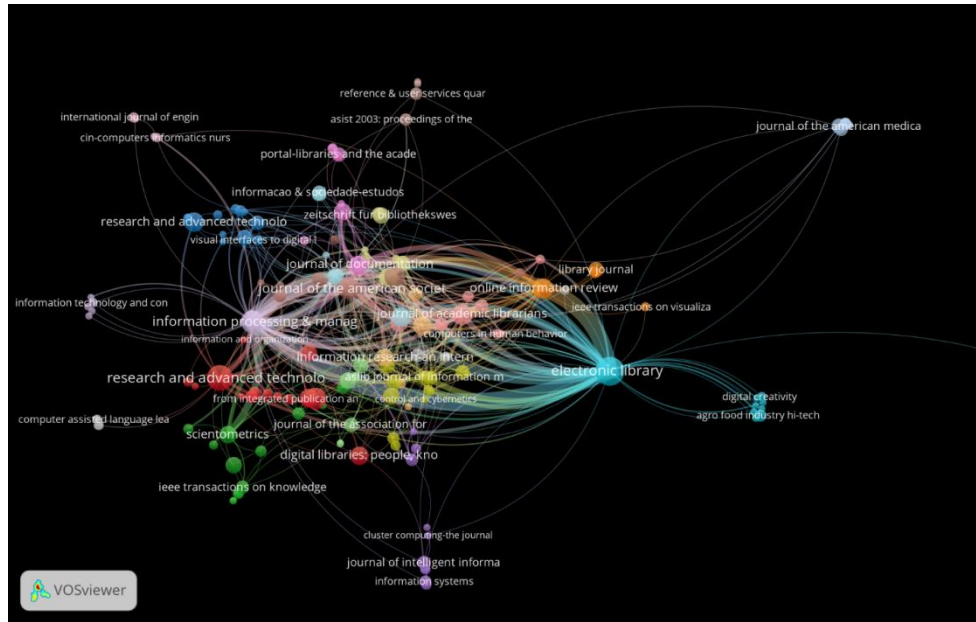


Image :6 Journal Citation



Top Ten citation of Digital Library Area

Top Ten Citation Table 6 explained the Citation work with the number of contributions. Digital Library to the best of our knowledge it was contributed the first learned article from Web of Knowledge. The Bib excel tools used to analyze. Select the C1 field and the whole field intact and then create the out file. Edit the out file select Decompress the out file ok then the result was .nnu file then result was .out file selected analysis Add Frequencies then sort descending whole string the result was India with Collaborative countries. Then the selected oux file the result was co-occurrence make pairs via the list box the result was coc file. The next step creates a .net file and then mapping create .vec file this file draws the mapping purpose. The next net files uses to VOS viewer and apply mapping to create the image. Ultimate Digital Lib,Pace A.K.,2003 is top most in 7 times in cited Reference. Digital Library Elect Publication,Buttenfield BP,2003 cited in 6. User Studies Digital 2012,Metadatais 2007, Digital Programs, Purcell AD 2007 all cited in 4 times.

Table: 6

Citation Reference		
S.NO	Citation Reference	Record
1	ULTIMATE DIGITAL LIB,Pace A. K., 2003,	7
2	DIGIT LIBR ELECT PUB,Buttenfield BP, 2003,	6
3	USER STUDIES DIGITAL,Anonymous], 2012,	4
4	METADATA ITS APPLICA LIU J, 2007	4
5	PURCELL AD, 2016, DIGITAL LIB PROGRAMS	4
6	LANDIS WE, 2006, ARCH DIGITAL LIB	3
7	DIMENSIONS USE SCHOL,Friedlander A, 2002,	3
8	DIGITAL LIB BRIT LIB,Carpenter L., 1998,	2
9	MANAGING DIGITAL LIB,Tennant R., 2004,	2
10	CHANDOS INF PROF SER, Baker D, 2009, P1,	2

Image: 7

Citation Reference

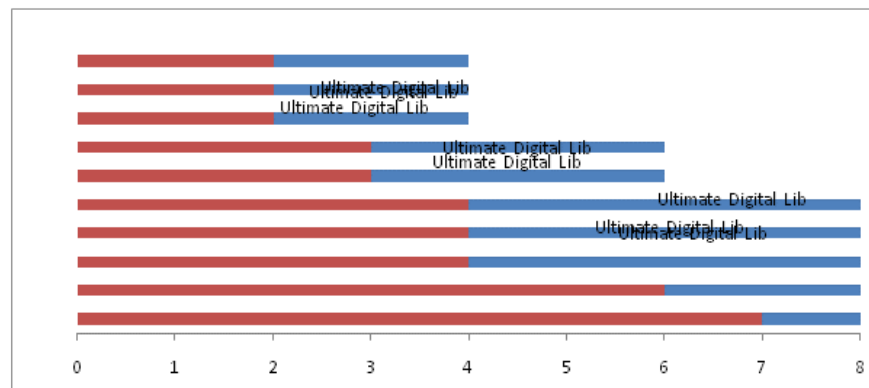
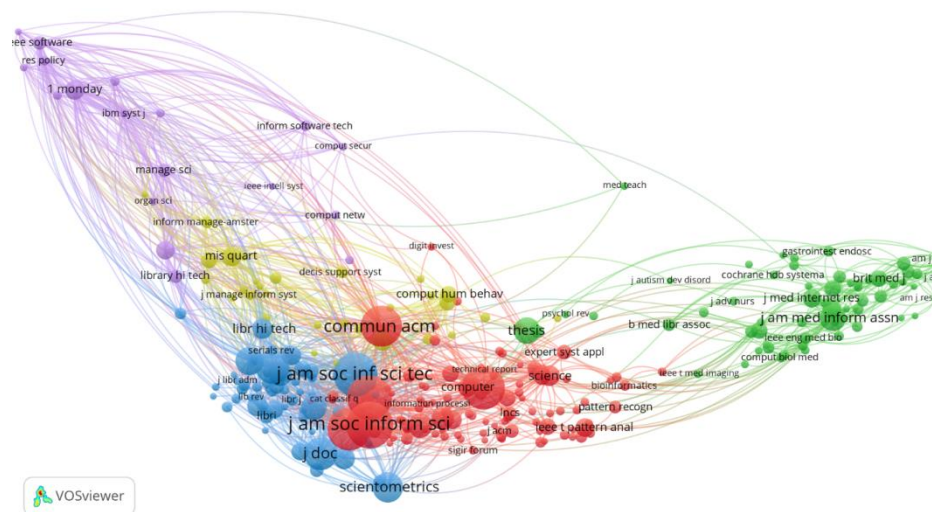


Image:7CitationJournal



H-Index of Digital Library from 1999 to 2018

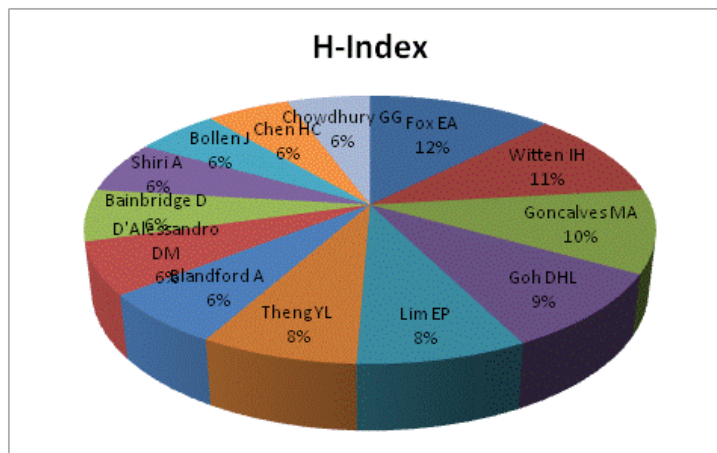
Digital Library from 1999 to 2018. Bib excel tool is used to identify h-index of authors. The research output is 1934. With the author field, the .doc file is created. The total number of times the article is cited is identified with the command tcand jn1 file is created. Select the jn1 file create col file. Then Run Analyze/ h-index produces result create in hdx file. This report is given to can be research articles, Citation and h-index. The top five h-index shown in table - opened in excel format. Table 5 shows that Liu TY published 39 research articles, with the h-index of 19. The researcher received 678 citations of 19 articles. But his total citation for his publications 870. The highly prolific 20 scientist's h-index, citation counts, citation total sum of h-index are shown in table 6.

Table: 6

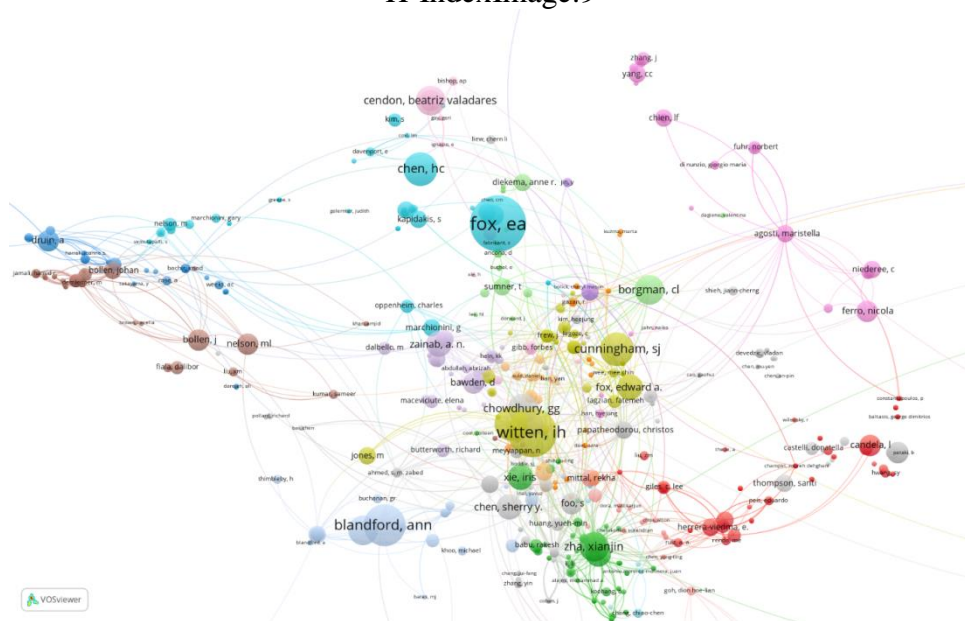
Authors H-Index of Digital Library		
S.No	Author	H-Index
1	Fox EA	20
2	Witten IH	17
3	Goncalves MA	16
4	Goh DHL	15
5	Lim EP	13
6	Theng YL	12
7	Blandford A	10
8	D'Alessandro DM	10
9	Bainbridge D	10
10	Shiri A	10
11	Bollen J	9
12	Chen HC	9
13	Chowdhury GG	9

Image: 8

H-Index



H-IndexImage:9



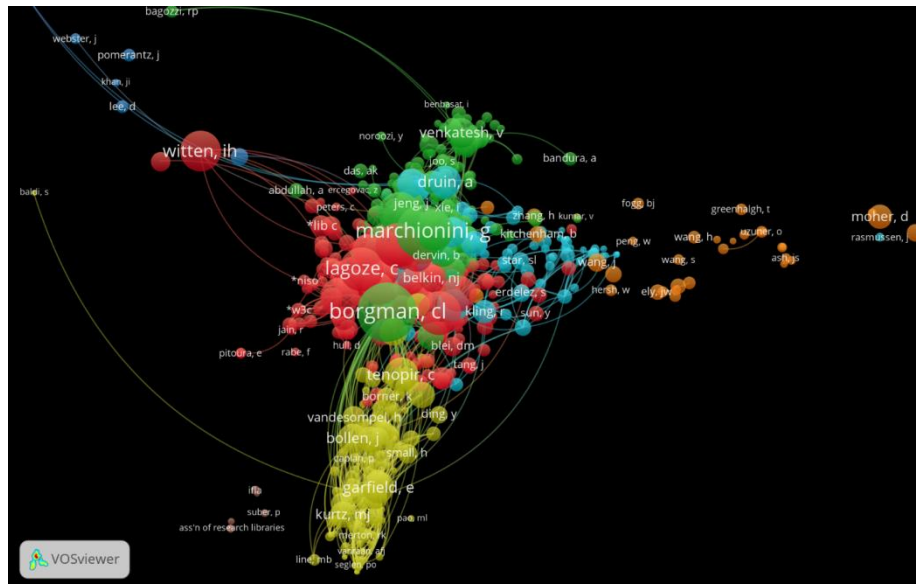
Top Ten Publishers of Digital Library Area

The top ten Publisher in Digital Library area was overall more than 117 publishers are available, in 135 articles are published in Electronic Library , 93 articles are published in Research and advanced Technology for Digital Libraries , 50 no of articles are published in Information Processing & Management , 46 Articles are published in Digital Libraries International collaboration science and Cross-Fertilization proceedings, 45 Journal of Americal society for Information science and Technology also.

Table: 7

TopTen Publishers of Digital Library			
S.No	Journal	Record	%
1	ELECTRONIC LIBRARY	135	9.73
2	RESEARCH AND ADVANCED TECHNOLOGY FOR DIGITAL LIBRARIES	93	6.71
3	INFORMATION PROCESSING & MANAGEMENT	50	3.60
4	DIGITAL LIBRARIES: INTERNATIONAL COLLABORATION AND CROSS-FERTILIZATION PROCEEDINGS	46	3.32
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10	RESEARCH AND ADVANCED TECHNOLOGY FOR DIGITAL LIBRARIES PROCEEDINGS	31	2.24
	Other all Journal	1387	100.00

Image- 10



Conclusion

Digital Library totally different in Internet technology. The changes of innovation and technical success are use and apply library day by day. Digital library analysis the researcher assesses the growth and quality of analysis measure in digital area of service platform of all age users. A digital library data collection, online database, text documents, images, audio, video, pdf using all types. Digital library is totally dependent on various Internet technologies, in this study we conclude that Analysis of the literature can highlight areas of emerging interest, and knowledge gaps and direct future research. The study of research was conducted using Clarified Bibliometric Analytics from Web of Science. Citation analysis was carried out using the Web of Science. Collaboration networks are constructed view in using VOS viewer tools and explain the diagrams. The present study aimed to investigate the presence of author encouragement purpose. This study explains design creativity and future research of Digital Library and Author ranking in the area of Digital Library future year research also.

Acknowledgement:

I am glad to thank to this study explain and full support given by my Guide.

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