

Bibliometric Analysis Of Webology Journal From 2004-2020: A Study

Dr. Chikkamanju¹, Dr. G. Kiran Kumar²

¹Assistant Librarian, University Library, University of Agricultural Sciences, Dhrawad, Karnataka State, India.

²Assistant Librarian, College of Agriculture, Vijayapur, University of Agricultural Sciences, Dhrawad, Karnataka State, India.

ABSTRACT

The present study analyses the papers published in Webology journal from 2004 to 2020. 342 papers were published in the journal 'Webology'. The data was taken from the archives of the journal through online. parameters used in the study were: journal such as growth of papers in issue wise, year-wise, authorship pattern, degree of collaboration, annual growth rate of publications, document types, subject wise, geographical wise. Affiliations of universities, distribution of papers, ranking of contributors have also been analyzed. The study also analysed that Webology is the most preferred 4 issues were published from the year 2005 to 2008, highest articles published from issue no-2 (n=168) vol no 17, CF is (n=342), 86.26% (n=295) are the Articles, 2020 has the highest contributors with 278(36.53%,) degree of collaboration in Webology journal is 0.83 an average annual growth rate of 4.81%. Collaboration index is 1.75. Iran contributed with one hundred seventy articles (31.48%) with secured first, Alireza Noruzi contributed 30 articles. India contributed eighty six articles (15.93%) with secured second of the contributions were Indians.

Keywords: Authors Productivity, Collaboration Index, Degree of Collaborations, Bibliometrics, Research Publications, Webology

1. INTRODUCTION

Bibliometrics is one of the popular techniques or metric studies that help to evaluate the characteristics of subjects and the nature of citations in various forms and branches of knowledge. The term 'bibliometrics' is derived from two distinct words, biblio and metrics. The meaning of Bibliometrics is simply considered to be "the measurement of the book", (Manoj Kumar Verma , Maya Deori & Gururaj S. Hadagali , 2020) The terms bibliometrics and scientometrics were almost simultaneous. Although the term "Bibliometrics" is a recent origin but the techniques and the studies of Bibliometrics were performed much earlier from

the beginning of the 20th century. The ‘term statistical bibliography was first coined the term by E.W. Hulme in 1932 in his study entitled Statistical analysis of the History of Science’. Alan Pritchard introduced the term “Bibliometrics” in 1969 replacing the earlier term “Statistical bibliography” in his paper published in the Journal of Documentation. According to him, the term “Statistical Bibliography” used by E. W. Hulme during 1923 is not at all satisfactory as he considered the term is “very clumsy, not very descriptive and can be confused with statistics itself or bibliographies on statistics”. Expressed about Periodicals are the most important sources of current information for education and research activities (Kumbar, Hadagali and Seema, 2007).

Webology is an international peer –reviewed open access journal in the English language published from webology centre, Iran. Moreover, it serves as a forum for discussion and interpretation of new ideas and research areas particularly for communication of information within the World Wide Web platform. Webology mainly focus on incorporation of generation, collection, distribution, transmission, and dissemination of information. The Journal covers all areas of research in Web information retrieval; Web crawling and indexing; Web cataloging; Web searching; Search engines and directories; Search behavior; Metadata; Link analysis; Semantic Web; Web ontology; Web Thesaurus; Webometrics; Cybermetrics; Information retrieval systems; Information policy; Information seeking behavior; Social and cultural impacts of information; Information marketing; Management information systems (MIS); Presently is published twice in a year. Since Webology is particularly based on the World Wide Web, in particular. Besides, The Webology journal is indexed by 24 major databases namely Scopus, ProQuest, EBSCO, LISA, LISTA, DOAJ, Open Jgate, Google Scholar, etc. webology is a publication from Regional Information Center for Science and Technology, Iran. Webology mainly encourages the authors to share their research articles, to cite other's work, and provides an appropriate repository to archive those works of literature. It also helps the authors on the retainment of copyright to their work; free access to all the worldwide users which in turn increases the visibility of the authors and acquires recognition with rapid publication. The present bibliometric analysis includes the year 2004 to 2020. It was interesting to analysis such a leading open access online journals in the field of World Wide Web related studies.

2. Review of Literature

Bibliometrics is a main research field with a long history. After being coined, bibliometrics changed in a topic of interest and many researchers used bibliometric techniques. These studies are in four main categories: bibliometric analyses of research fields, scientific journals, publishing countries and regions, and universities and research institutes.

The earlier study on Webology was conducted by Chandran Velmurugan and Radhakrishnan Natarajan(2015) They have studied (2007 - 2013). Chaman Sab, M., P. Dharani Kumar and B. S. Biradar (2016) they have studied from (2006-2015). Muneer Ahmad., M. Sadik Batcha., Basharat Ahmad Wani, Mohammad Idrees Khan, S. Roselin Jahina (2018) they have conducted Research Output of Webology Journal A Scientometric Analysis(2013-2017). Nagasundara., Manjunatha J., Dhruva kumar (2016) they have studied Publication Pattern of

the Journal “Webology”: A Bibliometric Analysis. A Bibliometric Analysis and Visualization of the Scientific Publications of Universities: A Study of Hamadan University of Medical Sciences during 1992-2018 (Heidar Mokhtari et al.). A scientometric study of webology journal they study conducted by S.Maheshwari and Murugesu Pandian, 2015. This study analyses the number of articles, form of documents cited, etc During 2004-2013 a total number of 114 papers were published in this journal. The average number of publications published per year was 11.4. The highest numbering of papers 16 was published in the year 2008. 58 articles were contributed by Single Authors and the remaining 56 articles were contributed by Multi Authors. Research Trends in The Electronic Library Journal During the Period 2010-2018: A Bibliometric Study was conducted by (Mamta Rani, 2019). Mondal, D. (2014).A Bibliometric analysis of Webology (2004-2012): An International Online journal. International journal of Information Dissemination and Technology. Bibliometric Analysis of the Journal Webology, from 2004-2013 (A. Vellaichamy & R. Jeysankar, 2021) (Shushan Rana, 2012) was conducted study Bibliometric analysis of output and visibility of science and technology in Singapore during 2000-2009. This study covers year-wise scientific output where Singapore produced an average of more than 8,000 scientific papers per year. Alone in 2008, Singapore produced 10,870 papers, the largest year-wise output during the period reviewed. Along with the discipline-specific publication and citation behaviors of Singapore, some prolific research partners and the dominance of multi authorship over single-authorship have also been analyzed.

3. OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To study the issue and year wise distribution of publications
2. To study the bibliographical forms of documents
3. To study the subject wise distribution of the publications
4. To study the authorship pattern and Degree of Collaboration
5. To study the Institutional wise of the publications
6. To study the most prolific contributed authors
7. To study the geographical distribution of the publications

4. METHODOLOGY

The present study has been done on at “Webology” Journal during the period from (2004 - 2020) Vol 1-17 , 40 issues and 342 articles were published. the journal comprising research papers, book reviews, editorial papers, specified years, the authorship patterns, the subject areas covered, The bibliographic parameters of the articles were analysed to meet objectivities of the study. All the necessary data are collected from <http://www.webology.org/>. The Microsoft Excel and dimensions database was employed for analysis, interpretation and tabulation of the recorded data. All the data are stored and examined, analysed and tabulated for this study.

5. ANALYSIS AND DISCUSSION

Table-1: Year Wise Published Issues

Year	Vol.	Issues				Total
		1	2	3	4	
2004	1	1	2	-	-	2
2005	2	1	2	3	4	4
2006	3	1	2	3	4	4
2007	4	1	2	3	4	4
2008	5	1	2	3	4	4
2009	6	1	2	-	-	2
2010	7	1	2	-	-	2
2011	8	1	2	-	-	2
2012	9	1	2	-	-	2
2013	10	1	2	-	-	2
2015	12	1	2	-	-	2
2016	13	1	2	-	-	2
2017	14	1	2	-	-	2
2018	15	1	2	-	-	2
2019	16	1	2	-	-	2
2020	17	1	2	-	-	2

Table-1 depicts that during the year 2004 to 2020, 17 Vol. Published from the webology journal. Out of which 17 Volume the numbers differ there is 4 issues were published from the year 2005 to 2008, Volume number 2 to 5, followed by during year 2009-2019 are contributing 2 issues in the year, Volume number 6 to 17. And 2004, 2 issues and 2014 there is no issues has been published from webology journal.

Table -2: Year-wise distribution of publications

Year	Vol.	No. of publications Issue-wise				TP	%	CF
		1	2	3	4			
2004	1	4	7	-	-	11	3.22	11
2005	2	4	5	4	5	18	5.26	29
2006	3	5	4	5	7	21	6.14	50
2007	4	6	5	5	8	24	7.02	74
2008	5	7	8	5	9	29	8.48	103
2009	6	5	5	-	-	10	2.92	113
2010	7	5	4	-	-	9	2.63	122
2011	8	6	5	-	-	11	3.22	133
2012	9	5	7	-	-	12	3.51	145
2013	10	7	6	-	-	13	3.80	158
2015	12	7	6	-	-	13	3.80	171

2016	13	9	6	-	-	15	4.39	186
2017	14	5	6	-	-	11	3.22	197
2018	15	10	9	-	-	19	5.56	216
2019	16	14	15	-	-	29	8.48	245
2020	17	27	70	-	-	97	28.36	342
Total	126	168	19	29		342	100.00	

TP, Total number of Publications; CF, Cumulative Frequency

Table-2 exhibit the number of articles published in 17 volumes in Webology journal for the period from 2004 to 2020 (342). The number of publications in 4 issues i.e. highest articles published from issue number-2 (n=168) followed by 126 articles published from issue number-1, about 29 articles published from issue 4, then 19 articles published from issue no 3. year 2020, n=97(28.36%) articles were published from Volume number 17, CF is (n=342), and 29(8.48%) articles were published from 2008 & 2019 and there is no single articles has been published from 2014.

Table- 3: Distribution of Document Types in Year-Wise

Year	Type of documents			Total
	Articles	Editorials	Book Reviews	
2004	8	2	1	11
2005	13	4	1	18
2006	14	4	3	21
2007	14	4	6	24
2008	16	4	9	29
2009	7	3	-	10
2010	9	-	-	9
2011	11	-	-	11
2012	10	-	2	12
2013	12	-	1	13
2015	13	-	-	13
2016	13	-	2	15
2017	11	-	-	11
2018	18	-	1	19
2019	29	-	-	29
2020	97	-	-	97
Total	295	21	26	342
%	86.26	6.14	7.60	100

Table-3 shows that the forms of publication during the period of sixteen years. It is evident that journal is the most preferred medium of all the forms. The largest number of the journal indicates a continued trend of relying primarily on this form of publications. It is shown in the table 86.26% (n=295) are the Articles were published from 2004 to 2020

followed by second highest form of book reviews 7.60% (n= 26) and editorials 6.14% (n=21) respectively.

Table- 4 A: Year-wise Authorship Pattern

Authors	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020	Total	%
One Author	9	9	12	19	22	6	3	4	7	4	3	5	3	5	3	19	133	17.48
Two Authors	4	12	12	6	12	8	10	6	10	12	8	12	6	12	16	48	194	25.49
Three Authors	-	6	9	9	3	-	3	9	3	6	9	6	9	15	21	60	168	22.08
Four Authors	-	-	-	4	-	-	-	-	-	-	12	8	4	4	16	92	140	18.40
Five Authors	-	-	-	-	-	-	-	5	-	-	-	-	5	-	25	40	75	9.86
Six Authors	-	-	-	-	-	-	-	-	-	6	-	-	-	-	12	12	30	3.94
Seven Authors	-	-	-	7	-	-	-	-	-	-	-	-	-	7	-	7	21	2.76
Total	13	27	33	45	37	14	16	24	20	28	32	31	27	43	93	278	761	100
%	1.71	3.55	4.34	5.91	4.86	1.84	2.10	3.15	2.63	3.68	4.20	4.07	3.55	5.65	12.22	36.53		

The tables-4A and table-4B present the authorship pattern of the research articles published in Webology journal during period from 2004-2020. It is clear from the table 4A, 761 total authors, 2020 has the highest contributors with 278 (36.53%), followed by during the year 2019, 93 (12.22%), authors year 2007, 45 (5.91%) and 2018, 43 (5.65%) authors, year 2008, 37(4.86%), year 2015, 32(4.20%) year 2004 13(1.71%) have least number of contributors. It can be concluded from table 3A and 3B that 25.49% of two authors, followed by 168(22.08%) three authors, about 140 (18.40%) four authors 133(17.48%) single authors respectively.

Table -4 B: Degree of Collaboration

Year	Single Authored (NS)	Multiple Authored (NM)	Total (NS+NM)	Degree of Collaboration
2004	9	4	13	0.31
2005	9	18	27	0.67
2006	12	21	33	0.64
2007	19	26	45	0.58
2008	22	15	37	0.41
2009	6	8	14	0.57
2010	3	13	16	0.81
2011	4	20	24	0.83
2012	7	13	20	0.65
2013	4	24	28	0.86
2014	-	-	-	-
2015	3	29	32	0.91
2016	5	26	31	0.84
2017	3	24	27	0.89
2018	5	38	43	0.88
2019	3	90	93	0.97
2020	19	259	278	0.93
Total	133	628	761	0.83 Mean Value

Table-4B shows the degree of author collaboration analyzed in the study undertaken. To determine the extent of research productivity based on the formula given by (K. Subramanyam, 1983) is used. The formula is:

$$C = \frac{N_m}{N_m + N_s}$$

Where C= degree of collaboration
 N_m= number of multiple- authored research papers in the discipline published during a year,
 N_s= number of single- authored research papers in the discipline published during same year,

It is found that the degree of author collaboration in the Webology ranged from 0.31 to 0.97 during the period 2004 to 2020 under the study. Hence, C= 628 / (628 + 133) and the average value of C is = 0.83 . Therefore, as per the formula the degree of collaboration in Webology journal is 0.83.

Table -5: Annual growth rate of publications

Year	No of Publications	Annual growth rate(AGR)
2004	11	0
2005	18	0.64
2006	21	0.17
2007	24	0.14
2008	29	0.21
2009	10	-0.66
2010	9	-0.10
2011	11	0.22
2012	12	0.09
2013	13	0.08
2014	-	-
2015	13	0.00
2016	15	0.15
2017	11	0.27
2018	19	0.73
2019	29	0.53
2020	97	2.34
Total	342	4.81

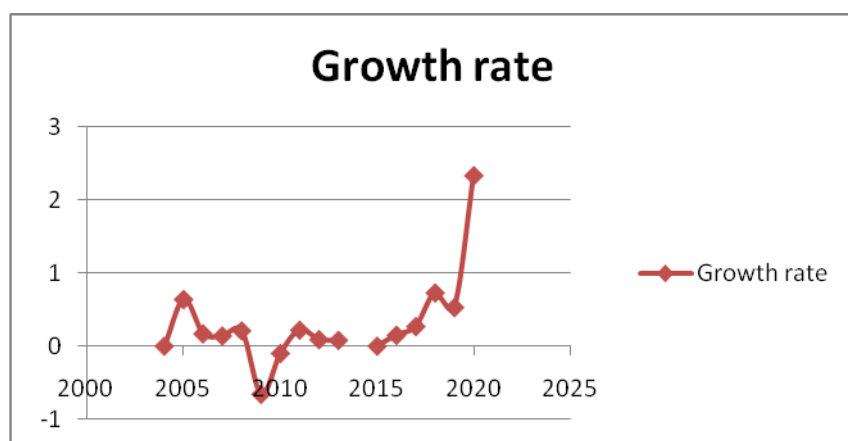


Figure-1: Annual growth rate of publications

Table-5 and figure 1 display the growth rate of the publications during 2004-2020 of the journal Webology. The journal has published a total number of 342 articles with an average annual growth rate of 4.81%. Table 5 shows a positive growth rate for the periods i.e. 2005, 2006, 2007, 2008, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020 respectively. Whereas, 2009 and 2010 have a negative rate shows a different view with a neutral rate. The year 2018 (0.73%) shows the highest growth rate, followed by 2005 (0.64%), whereas, 2009 (-0.66%) has the highest negative growth rate among all. The annual growth rate is calculated by using the formula (Santha and Kaliyaperumal,2015), as:

$$r=(P1-P0)/P0 \times 100$$

Where,

r = Publication growth in percentage

P1= Number of publications in the present year

P0 = Number of publications in the base year

Table - 6: Collaboration index

Year	Multi authored publications	Total authors of multi authored publications	CI
2004	4	13	3.25
2005	18	27	1.50
2006	21	33	1.57
2007	26	45	1.73
2008	15	37	2.47
2009	8	14	1.75
2010	13	16	1.23
2011	20	24	1.20
2012	13	20	1.54
2013	24	28	1.17
2014	-	-	-
2015	29	32	1.10
2016	26	31	1.19
2017	24	27	1.13
2018	38	43	1.13
2019	90	93	1.03
2020	259	278	1.07
Total	628	761	1.10

It is seen from that Table-6 shows that the collaboration index ranges from 2004 Collaboration index is 3.25 followed by year from 2008 Collaboration index is 2.47 about year from 2009 Collaboration index is 1.75 respectively. With an average of 1.10 per joint authored paper which implies the research publication of journal of Webology. Collaboration index is calculated by using the formula (Santha & Kaliyaperumal, 2015), as:

$$\text{Collaboration index} = \frac{\text{Total authors}}{\text{total joint papers}}$$

Table -7: Affiliations Contributions of Publications

Affiliations	Nos	Affiliations	Nos
University of Paul Cezanne, Marseille, France	24	Bahonar University, Iran	3
University of Tehran, Iran	23	Heinrich-Heine-University, Germany	3
Golestan University of Medical Sciences, Iran.	17	Karnatak University, Dharwad, India	3
KIIT University, Bhubaneswr, India	13	Kuvempu University, India	3
Lviv Polytechnic National University, Ukraine	12	Netaji Subhas Institute of Technology, India	3
University of Isfahan, Iran	12	Sharif University of Technology, Iran	3
Kharazmi University, Iran	10	Sultan Qaboos University, Oman	3
Alzahra University, Iran	9	University of Al Qadisiyah, Iraq.	3
Delhi Technological University, India	9	University of East London, UK	3
Tabriz University of Medical Sciences, Iran	9	University of Eastern Finland, Finland.	3
Tehran University of Medical Sciences, Iran.	8	University of Kufa, Iraq.	3
University of Tasmania, Australia	8	University of Nigeria, Nigeria	3
Islamic Azad University, Iran	7	University of Pretoria, South Africa	3
Tarbiat Moallem University, Iran	7	University of Queensland, Australia,	3
University of Kashmir, India	7	University of Sheffield, UK	3
San Jose State University, United States	6	University of Tampere, Finland.	3
Shahid Chamran University of Ahvaz, Iran	6	39 Universities	2 each
Allameh Tabataba'i University, Iran	5	131 Universities	1 Each
Belgorod State University, Russia	5		
CIBER Research, UK	5		
Hamadan University of Medical Sciences, Iran.	5		
Orissa University, India	5		
The Islamia University, Pakistan	5		
Universitas Indonesia, Indonesia	5		
University of Delhi, India	5		
Dalhousie University, Canada	4		
Damascus University, Syria	4		
Indian Institute of Science, India	4		
Kurdistan University of Medical Sciences, Iran	4		
Manav Rachna University, not found	4		
National University, Bandery, Ukraine	4		

Panjab University, India	4		
Plekhanov Russian University of Economics, Moscow,	4		
Saudi Electronic University, Saudi Arabia	4		
Shahid Beheshti University, Iran	4		
University Duesseldorf, Germany	4		

Table-7 shows the affiliation of universities during 2004-2020. It is clear that University of Paul Cezanne, Marseille, France contributed 24 articles, with secured first, followed by University of Tehran, Iran contributed with 23 articles, with secured second, Golestan University of Medical Sciences, Iran contributed with 17 articles with secured third, KIIT University, Bhubaneswr, India contributed with 13 articles, Lviv Polytechnic National University, University of Isfahan, Iran & Ukraine contributed with 12 articles each, Kharazmi University, Iran contributed with 10 articles, Alzahra University, Iran, Delhi Technological University, India and Tabriz University of Medical Sciences, Iran contributed with 9 articles Tehran University of Medical Sciences, Iran and University of Tasmanaia, Australia contributed with 8 articles, Islamic Azad University, Iran, Tarbiat Moallem University, Iran, University of Kashmir, India with contributed with 7 articles and San Jose State University, United States, Shahid Chamran University of Ahvaz, Iran with contributed with 6 articles respectively.

Table -8: Subject Wise Contributions of Publications

Subject	No. of Contributions	Rank
Library and Information Science	166	1 st
Humanities and Social Sciences	62	2 nd
Computer Science & Engineering	46	3 rd
Library	29	4 th
Computer Science & Information Technology	25	5 th
Medical Sciences	18	6 th
Information Systems and Network	15	7 th
Management Studies	15	7 th
Information Technology and Engineering	11	8 th

Table-8 shows the subject wise contribution of publications during 2004 to 2020. It is clear that 166 Library and Information Science contributed with one hundred sixty six articles with secured first rank followed by Humanities and Social Sciences contributed with sixty two articles with secured second rank, about Computer Science & Engineering contributed with forty six articles with third rank, whereas it gradually increases the rank Library contributed with twenty nine articles secured with fourth rank, Computer Science & Information Technology contributed with twenty five articles secured with fifth rank, Medical Sciences contributed with eighteen articles secured with sixth rank, Information

Systems and Network & Management Studies contributed fifteen articles secured with seventh rank each and Information Technology and Engineering contributed eleven articles with secured eight rank

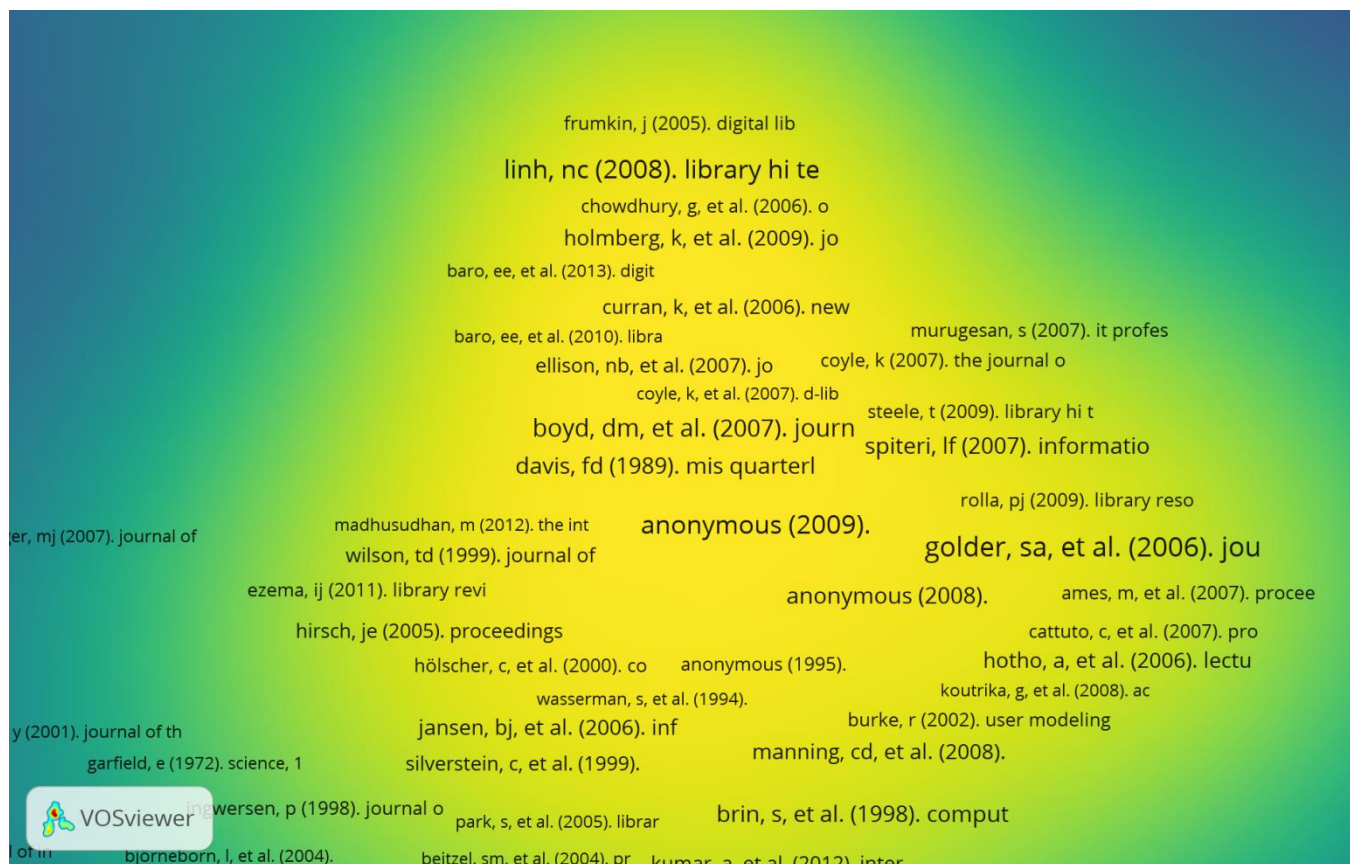


Figure-2: Author Network of Co citations cited references

Minimums number of citations of a cited reference 04 of the 25054 cited references, 764 meet the threshold. For each of the 764 cited references, the total strength of the co citations link with other cited references will be calculated. The cited references with the greatest total link strength will be selected. data retrieval from Dimensions databases using Vo S viewer software.

Table- 9: Geographical Affiliation of Authors

Country	No. of contributions	%	Rank	Country	No. of contributions	%	Rank
Iran	170	31.48	1	Peru	2	0.37	18
India	86	15.93	2	Pittsburgh	2	0.37	18
USA	33	6.11	3	Portugal	2	0.37	18
France	26	4.81	4	Serbia	2	0.37	18
UK	24	4.44	5	Bahrain	1	0.19	19
Australia	19	3.52	6	Brazil.	1	0.19	19
Ukraine	17	3.15	7	Bulgaria	1	0.19	19
Nigeria	14	2.59	8	England	1	0.19	19
Moscow	13	2.41	9	Estonia	1	0.19	19
Iraq	12	2.22	10	Hayden,	1	0.19	19

Germany	10	1.85	11	Hungary	1	0.19	19
Russia	10	1.85	12	Kazakhstan	1	0.19	19
Finland	9	1.67	13	Kingdom of Bahrain	1	0.19	19
Canada	8	1.48	14	Norway	1	0.19	19
Pakistan	8	1.48	14	Taiwan	1	0.19	19
Indonesia	5	0.93	15	Tehran	1	0.19	19
Saudi Arabia	5	0.93	15	Thailand	1	0.19	19
London	5	0.93	15	Turkey	1	0.19	19
Netherlands	5	0.93	15				
Malaysia	4	0.74	16				
South Africa	4	0.74	16				
Syria	4	0.74	16				
Italy	3	0.56	17				
Oman	3	0.56	17				
Singapore	3	0.56	17				
Bangladesh	2	0.37	18				
China	2	0.37	18				
New York	2	0.37	18				
Oklahoma	2	0.37	18				

Table-9 shows the geographical affiliation of authors during 2004-2020. It is clear that out of 530 contributors, Iran contributed with one hundred seventy articles (31.48%) with secured first, followed by India contributed eighty six articles (15.93%) with secured second. The USA secured third rank with thirty three papers (6.11%) followed by France with twenty six papers (4.81%), UK with twenty four papers (4.44%), Australia with nineteen papers(3.52%), Ukraine with seventeen papers (3.15%), Nigeria with fourteen papers(2.59%), Moscow with thirteen papers (2.41%), and Iraq with twelve papers (2.22%) respectively.

Table -10: Most Productive Authors

Name of the Authors	No. of contributions	Name of the Authors	No. of contributions
Alireza Noruzi	30	Mojtaba Azghandi Shahri	2
Hamid R. Jamali	7	Mohsen Mansouri	2
Yazdan Mansourian	6	Mohammadhiwa Abdekhoda	2
Masoud Mohammadi	6	Mehdi Safari	2
Elaheh Hossseini	6	Maryam Banisafar	2
Xingan Li	5	Mansoor Al-A'ali	2

Mohammadamin Erfanmanesh	5	Mahmood Khosrowjerdi	2
Vladimir M. Moskovkin	4	M.P.S. Bhatia	2
Akshi Kumar	4	Kirsty Young	2
Victoria Vysotska	3	Katrin Weller	2
Vasyl Lytvyn	3	Iman Raeesi Vanani	2
Pozdeeva Svetlana Nikolaevna	3	Hussien Ahmad	2
Paul L. Hover	3	Helen Nneka Eke	2
Mozafar CheshmehSohrabi	3	Hamad Karem Hadrawi	2
Mohammad Karim Saberi	3	Haidar Moukdad	2
Ina Fourie	3	Greg Chester	2
Heidar Mokhtari	3	Fayaz Ahmad Loan	2
Asefeh Asemi	3	Fatemeh Sheikhshoei	2
A. Neelameghan	3	Dinda Ayunindia Putri	2
Yevhen Burov	2	David Nicholas	2
Yeni Budi Rachman	2	Dariush Alimohammadi	2
William W. Bostock	2	Babak Sohrabi	2
Veronica F. McGowan	2	Auwal Abdullahi Abubakar	2
Shakeel Ahmad Khan	2	Arun Kumar Singh	2
Saeid Asadi	2	Andrey A. Pechnikov	2
Rohit Beniwal	2	Ahmad Shabani	2
Reza Basirian Jahromi	2	381 Authors	1 article each
Rajendra Babu H	2		
Rahman Marefat	2		
MPS Bhatia	2		

Table-10 depicts the prolific authors of the articles during the period from 2004-2020 under study. It is observed from the table that Alireza Noruzi contributed 30 articles followed by Hamid R Jamali with 07, Yazdan Mansourian, Masoud Mohammadi and Elaheh Hosseini with each. 6 articles were contributed Xingan Li and Mohammadamin Erfanmanesh each 5 articles were contributed, Vladimir M. Moskovkin and Akshi Kumar each 4 articles were contributed about Victoria Vysotska, Vasyl Lytvyn, Pozdeeva Svetlana Nikolaevna, Paul L. Hover, Mozafar Cheshmeh Sohrabi, Mohammad Karim Saberi, Ina Fourie, Heidar Mokhtari, Asefeh Asemi and A. Neelameghan each 3 articles were contributed. Yevhen Burov, Yeni Budi Rachman, William W. Bostock, Veronica F. McGowan, Shakeel 1007

Ahmad Khan, Saeid Asadi, Rohit Beniwal, Reza Basirian Jahromi, Rajendra Babu H, Rahman Marefat, MPS Bhatia, each 2 articles were contributed respectively, and 381 authors 1 articles each were contributed.

Conclusion

Webology is an international peer –reviewed open access journal in the English language published from webology centre, Iran. electronic journal in the field of Library and Information Science. A total of 342 papers are published in the period of sixteen years. The study also indicates the highest number of publications (28.36%) in the year of 2020. n=295 (86.26%) papers are the topmost publications in the form of Articles published from 2004 to 2020. the highest contributors with 278(36.53%), authors published papers, degree of collaboration in Webology journal is 0.83 an average annual growth rate of 4.81%, Collaboration index is 3.25, University of Paul Cezanne, Marseille, France contributed 24 articles, with secured first, followed by University of Tehran, Iran contributed with 23 articles, with secured second, 166 Library and Information Science contributed with one hundred sixty six articles with secured first rank, Iran contributed with one hundred seventy articles (31.48%) with secured first, AlirezaNoruzi contributed 30 articles followed by Hamid R Jamali with 07, The Iran has contributed more number of articles compared to any other countries, such as India, United States, Australia and United Kingdom.

References:

- Ackermann, E. (2005). Bibliometrics of a controversial scientific literature: polywater research, 1962-1974. *Scientometrics*, 63 (2), 189-208.
- Ahmed, A., & Al-Reyae, S. (2019). Bibliometric analysis of research publications of Al-Jouf University, Saudi Arabia during the Year 2006-2017. *Library Philosophy and Practice*, 2019 (2467), 1-9.
- Bakri, A., & Willett, P. (2017). The malaysian journal of library and information science 2001-2006: A bibliometric study. *Malaysian Journal of Library & Information Science*, 13 (1), 103-116.
- Bhat, Smt. Veena R., & Sampath Kumar, B.T. (2008). "Web citation behavior in scholarly electronic journals in the field of library and information science." *Webology*, 5(2), Article 57. Available at: <http://www.webology.org/2008/v5n2/a57.html>
- Brown, T., Gutman, S. A., Ho, Y. S., & Fong, K. N. (2018). A bibliometric analysis of occupational therapy publications. *Scandinavian Journal of Occupational Therapy*, 25(1), 1-14.
- Buznik, V. M., Zibareva, I. V., Piottukh-Peletsii, V. N., & Sorokin, N. I. (2004). Bibliometric analysis of the Journal of Structural Chemistry. *Journal of Structural Chemistry*, 45(6), 1096-1106.
- Chuang, K. Y., Chuang, Y. C., Ho, M., & Ho, Y. S. (2011). Bibliometric analysis of public health research in Africa: The overall trend and regional comparisons. *South African Journal of Science*, 107 (5-6), 54-59.

- Corrales-Reyes, I. E., Corrales, I. E., Reyes, J. J., & Fornaris, Y. (2016). Bibliometric analysis of the Journal of Oral Research: Period 2012-2015. *Journal of Oral Research*, 5 (5), 188-193.
- Dwivedi, S. (2017). Publications of Banaras Hindu University during 1989-2016: A three-dimensional Bibliometric Study. *DESIDOC Journal of Library & Information Technology*, 37 (6), 403-409.
- Mondal, D. (2014). A Bibliometric analysis of Webology (2004-2012): An International Online journal. *International journal of Information Dissemination and Technology*, 4(3), 201-207.
- Gholampour, Sajad, Noruzi, Alireza, Gholampour, Behzad, & Elahi, Alireza (2019). "Research trends and bibliometric analysis of a journal: Sport Management Review." *Webology*, 16(2), Article 200. Available at: <http://www.webology.org/2019/v16n2/a200.pdf>
- Hemanta Kumar Das, (2012). Bibliometric analysis of the plant taxonomy journal nelumbo, 2004-2011. *International Journal of Library and Information Studies*, 2 (4), 51-61.
- Huamaní, C., Romaní, F., González-Alcaide, G., Mejia, M. O., Ramos, J. M., Espinoza, M., & Cabezas, C. (2014). South American collaboration in scientific publications on leishmaniasis: bibliometric analysis in SCOPUS (2000-2011). *Revista do Instituto de Medicina Tropical de São Paulo*, 56 (5), 381-390
- Jiang, B. J., Tan, X. D., Robinson, P., Liu, M., & Di, J. (2014). Bibliometrics analysis of the scientific publication of the provincial capital cities CDC in China. *Journal of Advances in Medicine and Medical Research*. 4 (1), 529-539.
- Kannan, P., & Thanuskodi, S. (2019). Bibliometric analysis of library philosophy and practice: A study based on Scopus Database. *Library Philosophy and Practice*, 2019 (2300), 1-13.
- Kim, M. J. (2001). A bibliometric analysis of physics publications in Korea, 1994-1998. *Scientometrics*, 50(3), 503-521.
- Kumbar, B.D., Hadagali, G.S., & Seema, P. (2007). Use of Periodical Literature in the University of Agricultural Sciences, Dharwad: A Case Study. *DESIDOC Bulletin of Information Technology*, 27 (2), 37-43.
- Lotka, A.J. (1926). The frequency distribution of scientific productivity. *Journal of the Washington Academy of Sciences*, 16(12), 217-23.
- Mokhtari, Heidar; Mirezati, Seyedeh Zahra; Saberi, Mohammad Karim; Fazli, Farzaneh, & Kharabati-Neshin, Mohammad (2019). "A bibliometric analysis and visualization of the scientific publications of universities: A study of Hamadan University of Medical Sciences during 1992-2018", *Webology*, 16(2), Article 198. Available at: <http://www.webology.org/2019/v16n2/a198.pdf>

- Muneer Ahmad , Dr. M. Sadik Batcha, Basharat Ahmad Wani, Mohammad Idrees Khan & S. Roselin Jahina(2018). Research Output of Webology Journal (2013-2017): A Scientometric Analysis. 7(3), 46-58.
- Rajendran, P., Jeysankar, R., & Elango, B. (2011). Scientometric analysis of contributions to journal of scientific and industrial research. *International Journal of Digital Library Services*, 1(2), 79-89.
- Santha nakarthikeyan et al, (2014), Research publications to Indian Journal of Cancer: a scientometric analysis, *Library Hi Tech News*, 3, 21-25.
- Santha Kumar. R & Karthikeyan Kaliyaperumal(2015). A scientometric analysis of mobile technology publications. *Scientometrics*, (105) 921–939
- Şenel, E., & Demir, E. (2018). Bibliometric and scientometric analysis of the articles published in the *Journal of Religion and Health* between 1975 and 2016. *Journal of Religion and Health*, 57(4), 1473-1482
- Shilbury, D. (2011a). A bibliometric analysis of four sport management journals. *Sport Management Review*, 14(4), 434-452.
- Shilbury, D. (2011b). A bibliometric study of citations to sport management and marketing journals. *Journal of Sport Management*, 25(5), 423-444.
- Singh, J. K., “A bibliometric analysis of LIBRI Journal (2001-2009)”, *Indian Journal of Information Sources and Services*, 2(1), 2012, 55-60.
- Subramaniam, K. (1983). Bibliometric studies of research in collaboration: A review. *Journal of Information Science*, 6(1) 33-38.
- Subramanyam, K. Citation and significance, *New Library World* 76 (905) (1975) 227-228.
- Subramanyam, K. and Elsie M. Stephens, Research collaboration and funding in biochemistry and chemical engineering, *International Forum on Information and Documentation* 7 (4) (1982) 26-29.
- Thanuskodi, S. (2011). *Library Herald journal: a bibliometric study*. *Journal of Arts Science & Commerce*, 2(4), 68-76.
- Tsay, M. Y. (2008). A bibliometric analysis of hydrogen energy literature, 1965–2005. *Scientometrics*, 75(3), 421-438.
- Tsay, M. Y. (2011a). A bibliometric analysis on the *Journal of Information Science*. *Journal of Library and Information Science Research*, 5(2), 1-28.

- Tsay, M. Y., & Li, C. N. (2017). Bibliometric analysis of the journal literature on women's studies. *Scientometrics*, 113(2), 705-734.
- Vellaichamy and R. Jeyshankar(2015). Bibliometric Analysis of the Journal Webology from 2004-2013. *Journal of Advances in Library and Information Science*,.4,(1), 07-13.
- Willett, P. (2007). A bibliometric analysis of the Journal of Molecular Graphics and Modelling. *Journal of Molecular Graphics and Modelling*, 26(3), 602-606.