S R Ranganathan in Google Scholar and other citation databases

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This paper analyses the scholarly contribution of S R Ranganathan as reflected in Google Scholar Citations, Web of Science, and Scopus. This paper also identifies popularity of his published works, particularly which are highly referred by the researchers and LIS curriculum designers. His top three highly cited books are namely *Prolegomena to Library Classification*, *The Five Laws of Library Science*, and *Colon Classification*. His top three highly referred journal articles are titled "Hidden Roots of Classification", "Subject Heading and Facet Analysis", and "Colon Classification Edition 7 (1971): A Preview". This paper identifies the articles that cited his works extensively and got considerable citations from the other researchers. Top citing journal articles are namely "The Need for a Faceted Classification as the Basis of All Methods of Information Retrieval", "Ranganathan and the Net: Using Facet Analysis to Search and Organise the World Wide Web" and "Grounded Classification: Grounded Theory and Faceted Classification". These citing articles also indicate that Ranganathan is very relevant to today's researchers in interdisciplinary areas, particularly which belong to the fields of computer applications and information systems.

Keywords: S.R. Ranganathan; Google Scholar Citations; Web of Science; Scopus; Citation Analysis; Citation Index

Introduction

On 8th June 2015, GoogleScholar Digest[1] blog reported the availability of Google Scholar profiles of the classic scholars in library and information science. Out of 29 scholars, only one scholar, i.e., Dr. Shiyali Ramamrita Ranganathan[1] (1892–1972) or SR Ranganathan - has been included in this list from the developing countries. The 29 identified classic scholars, now deceased, played an outstanding role in the creation and consolidation of the field of LIS. The maker of the classic scholar profiles – the EC3 Research Group, located at the University of Granada, Spain highlights the objective of preparing Classic Scholar profiles of the pioneers in LIS research as:

- "To pay public tribute to those researchers and professionals who dedicated their life's efforts to establish new scientific disciplines and fields of study. Rescuing their work from bibliographic oblivion and keeping their memory alive are the main motives behind this project.
- To provide these authors with a digital bibliographic identity, in order to improve the visibility of their scientific production, and learn about the impact their work has had on the scholarly community, thanks to the citation counts Google Scholar provides.

- To test the capabilities of Google Scholar Citations for identifying the bibliographic production of an author whose professional activities ceased many years ago (in some cases, more than two centuries), as well as to test its performance as regards the detection of citations to these works, making note of the potential technical issues the study of these cases may bring to light."[2]

S R Ranganathan is the only pioneering scholar from the developing countries who had enriched the theories and practices of library and information studies in the world. He was the only LIS theorist from the Global South, whose works have continuously attracted the next generation scholars all over the world.

SR Ranganathan was a prolific scholar in the field of LIS and had written several scholarly monographs and articles. Google Scholar profile of Ranganathan has recorded 216 publications written by him between 1931 and 1992, including his contributed books, book chapters, reports, journal articles, texts of invited speeches or special lectures. His scholarly works received 3553 citations, as reflected on the Google Scholar Citations (GSC) database[3] as on 14th July 2015. Figure 1 indicates his citation-related scores such as h-index and i10-index, which are respectively
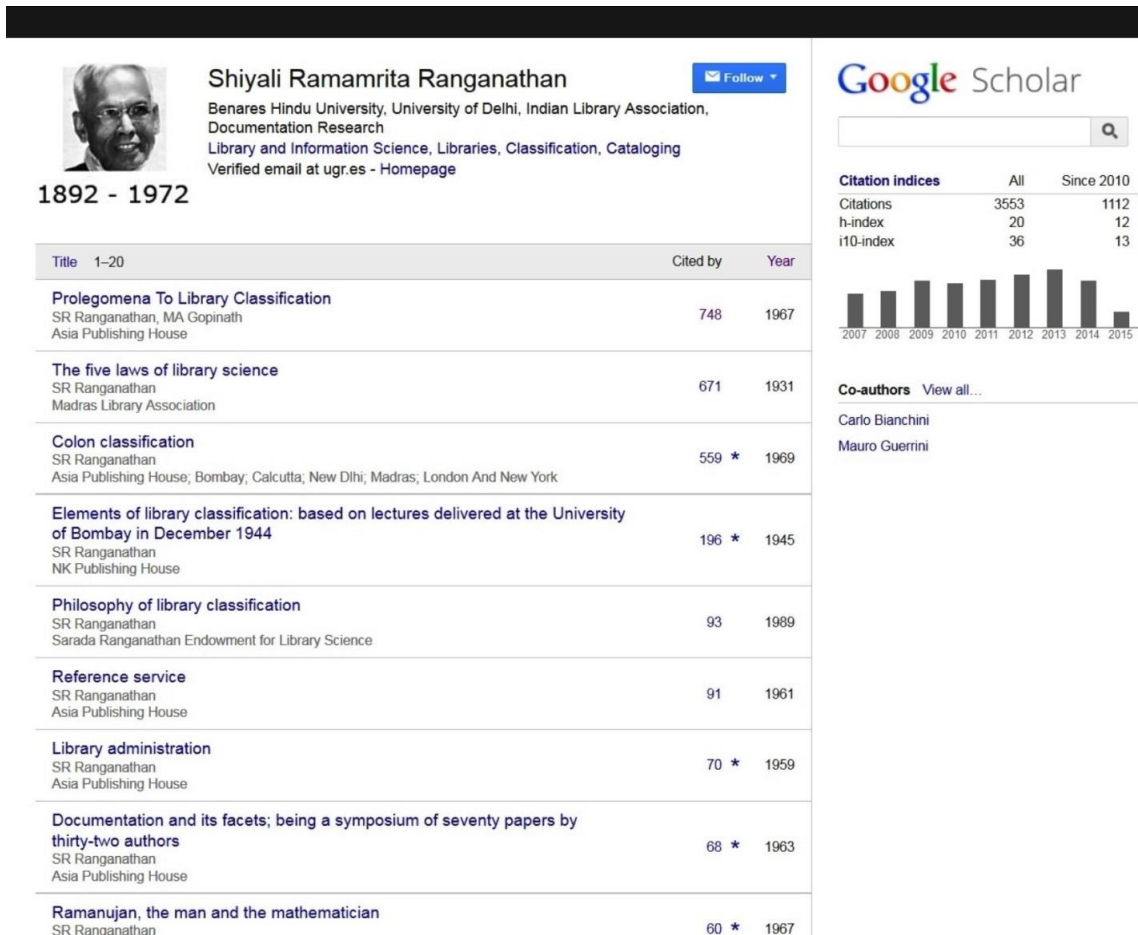
Fig. 1—Google Scholar Public Profile of SR Ranganathan

20 and 36. It is also interesting to note that his scholarly works are continually cited in contemporary time (2007-2015) with an h-index 12 since 2010. His scholarly works continue to receive citations not only from the researchers in library and information studies field but also from the researchers in allied fields such as information and communications technologies (ICTs) and computer sciences. His facet analysis technique and other theoretical frameworks are now-a-days extensively used in different computer and semantic web applications such as the automatic question answering or question taxonomies[4], identifying and measuring the dimensions of interaction in online learning[5], designing search interface[6], organizing and accessing internet resources[7], organizing the World Wide Web[8], designing specialized databases[9], and data modelling[10]. Table 1 and Figure 1 indicate twenty top-cited scholarly works of S R Ranganathan. The top three publications are the books titled *Prolegomena to Library Classification*, *The Five Laws of Library Science* and *Colon Classification*, which received 748, 671 and 559 citations respectively. Table 1 also provides citations count in Web of Science (WoS) database. Based on WoS database, top three scholarly works are respectively *Colon Classification*, *Prolegomena to Library Classification*, and *The Five Laws of Library Science* with 177, 127 and 87 citations. It may be noted that the variation in citations count amongst different databases is due to the use of different sets of source documents. Table 1 also indicates that the books written by Ranganathan are cited more than his journal articles. The top three scholarly works have greater significance in LIS education, as major LIS schools across the world teach these in their graduate programmes.

Objectives of the study

- To elucidate how far Ranganathan's scholarly works are being used by the contemporary information scientists, information planners,

Table 1—Top 20 Cited Scholarly Works of SR Ranganathan

Title of work	Type	Year of First Ed.	GSC Citations Count	WoS Citations Count
Prolegomena to Library Classification	Book	1967	748	127
The Five Laws of Library Science	Book	1931	671	87
Colon Classification	Book	1933	559	177
Elements of Library Classification: Based On Lectures Delivered at the University of Bombay in December 1944	Book	1945	196	39
Philosophy of Library Classification	Book	1989	93	12
Reference Service	Book	1961	91	15
Library Administration	Book	1959	70	-
Documentation and its Facets: Being a Symposium of Seventy Papers by Thirty-Two Authors	Edited Book	1963	68	4
Ramanujan, the Man and the Mathematician	Book	1967	60	11
Classification and Communication	Book	1951	44	12
As Cinco Leis Da Biblioteconomia [The Five Laws of Library Science]	Translated Book	2009	43	-
Heading and Canons: Comparative Study of Five Catalogue Codes	Book	1955	40	-
Library Book Selection	Book	1966	40	1
Hidden Roots of Classification	Journal Article	1967	38	-
Library Development Plan: Thirty-Year Programme for India with Draft Library Bills for The Union and the Constituent States	Book	1950	38	-
Subject Heading and Facet Analysis	Journal Article	1964	28	-
Colon Classification Edition 7 (1971): A Preview	Journal Article	2002	25	3
Library Manual	Book	1951	25	1
Library Development Plan with a Draft Library Bill for Kerala State	Book	1966	20	-
Classification, Coding and Machinery for Search	Book	1950	20	7

(Citations Count as on 13 July 2015)

computer technologists and information system designers for further enrichment of the LIS and allied fields; and

- To find out highly cited works citing Ranganathan's theories and principles.

Methodology

The three citation databases Web of Science (Core Collection), Scopus and Google Scholar Citations were searched exclusively to identify citing and cited scholarly works of S R Ranganathan. In Scopus database, the search key used was: *(TITLE-ABS-KEY(Ranganathan) AND NOT AUTHOR-NAME(Ranganathan))*, to identify papers matching Ranganathan search term in title or abstract or keyword field, but not in authors field. In Web of Science database, the search key used was: *(TOPIC:*

(Ranganathan) NOT AUTHOR: (Ranganathan)). After retrieving a set of data, several records not related to Ranganathan were removed manually. Then data were sorted by citations received. Finally, we found about 100 articles from Scopus database and 98 articles from WoS database having papers on a topic related to S R Ranganathan and his scholarly works. Temporal coverage of these journals was the custom year range till date, e.g. 1989 to present for WoS database, and 1995 to present for Scopus database. However, Scopus database was started recently, covering only a few journals retrospectively. Thus, many articles published during the 1990s and 2000s by LIS journals are not included in Scopus database. As many LIS journals of South Asian origin were not adequately covered in Scopus or WoS databases, those articles discussing the influence of

Ranganathan's theories and practices in South Asian librarianship are almost missed out.

Analysis

The majority of periodicals identified from the citation databases – Scopus and WoS belong to disciplinary journals in LIS domain. Many LIS journals worldwide published a special centenary issue or a special section during 1992-93, the year of celebration of Ranganathan's birth centenary, with articles focusing contributions of Ranganathan. However, these papers are not reflected in Table 2 due to low coverage but nominally reflected in Table 3.

Table 2—Top 12 Periodicals discussing scholarly works of SR Ranganathan: Scopus

Journal	No. of Records (Scopus)	Cited Articles	Non Cited Articles	Name of the Publisher & Country
Knowledge Organization	13	8	5	ISKO, Germany
Libri: International Journal of Libraries and Information Services	8	7	1	Walter de Gruyter, Germany
Ciencia Da Informacao	4	2	2	IBICT, Brazil
Journal of Librarianship and Information Science	4	3	1	Sage, U.K.
DESIDOC Journal of Library and Information Technology	4	2	2	DESIDOC, India
Annals of Library and Information Studies	4	1	3	NISCAIR, India
Advances in Knowledge Organization [Proceedings of bi-annual International ISKO Conferences]	4	0	4	ISKO
Journal of Documentation	3	3	0	Emerald, U.K.
Library Philosophy and Practice	3	3	0	Univ of Nebraska -Lincoln, USA
Information Processing and Management	3	2	1	Elsevier
Cataloging and Classification Quarterly	3	1	2	Taylor & Francis, U.K.
Other Journals	47			
Total Records (data as on 13 July 2015)	100			

Table 3—Top 13 Periodicals discussing scholarly works of SR Ranganathan: Web of Science

Journal	No. of Records (WoS)	Cited Articles	Non Cited Articles	Name of the Publisher & Country
Knowledge Organization	18	10	8	ISKO, Germany
Libri: International Journal of Libraries and Information Services	11	10	1	Walter de Gruyter, Germany
International Classification	9	7	2	Springer, Germany
Journal of Documentation	6	4	2	Emerald, U.K.
Journal of the Korean Library and Information Science Society	6	0	6	Korean LIS Society, South Korea
Perspectivas Em Ciencia Da Informacao	5	0	5	UFMG, Brazil
Journal of Librarianship and Information Science	4	2	2	Sage, U.K.
Online Information Review	3	2	1	Emerald, U.K.
Current Science	2	0	2	Current Science Association, India
Library Trends	2	2	0	Johns Hopkins University Press, USA
Library Resources & Technical Services	2	1	1	Association for Library Collections Technical Services, USA
Library and Information Science	2	0	2	Mita Society for Library & Information Science, Japan
Aslib Proceedings	2	2	0	Emerald, U.K.
Other journals	26			
Total Records (data as on 13 July 2015)	98			

Table 2 shows the top twelve journals discussing scholarly works of Ranganathan, based on records in Scopus database. These journals are unevenly distributed publishing papers related to Ranganathan's works and contributions. As indicated in Table 2, the top three journals are respectively *Knowledge Organization*, *Libri: International Journal of Libraries and Information Services* and *Ciencia Da Informacao*. The *Knowledge Organization* is a bi-monthly peer-reviewed academic journal, jointly published by International Society for Knowledge Organization (ISKO) and Germany-based Ergon-Verlag. This journal covers the theories and practices of classification, indexing, concept theory, and knowledge representation. These are also very core to the scholarly works of Ranganathan. Thus, we see the journal gets a top position in the list, with 13 articles on Ranganathan. Out of 13 articles, 8 got cited by other scholars, and 5 did not receive any citation till date. ISKO also publishes another periodical titled *Advances in Knowledge Organization* indexed by Scopus, which is the proceedings of bi-annual international ISKO conferences. The journal titled *Libri*, published by Germany-based Walter de Gruyter, comes second in the list with eight articles on Ranganathan. The journal titled *Ciencia Da Informacao*, published by Brazil-based IBICT (Brazilian Institute for Information in Science and Technology), is only non-English journal with four articles on Ranganathan in the Portuguese language. Other periodicals publishing 4 articles each on Ranganathan-related topic include *Journal of Librarianship and Information Science* published by Sage; *DESIDOC Journal of Library and Information Technology*, published by India-based DESIDOC (Defence Scientific Information & Documentation Centre); *Annals of Library and Information Studies*, published by India-based NISCAIR (National Institute of Science Communication and Information Resources); and *Advances in Knowledge Organization*, published by ISKO. Their articles are moderately cited, except the articles in *Advances in Knowledge Organization* which received no citation. Table 2 also shows that other journals published 47 papers on Ranganathan and related topics.

Table 3 shows the top twelve journals discussing scholarly works of Ranganathan, based on records in Web of Science citation database. These journals are unevenly distributed publishing papers related to Ranganathan's works and contributions. Top three

journals in the relatively small WOS dataset are *Knowledge Organization*, *Libri* and *International Classification*. The journal *Knowledge Organization* secures the top position with 18 articles on Ranganathan. Out of 18 articles, 10 got cited by other scholarly articles, and 8 did not receive any citation till date. The journal *Libri* comes second in the list with 11 articles on Ranganathan. Out of them, ten articles received citations by other scholars, and one did not receive any citation till date. The journal *International Classification*, published by Germany-based Springer, is third in the list with nine articles on Ranganathan. Other important journals publishing articles on Ranganathan include *Journal of Documentation* (JDOC), published by Emerald Publishing; *Journal of the Korean Library and Information Science Society*, published by the Korean LIS Society; and *Perspectivas Em Ciencia Da Informacao*, published by the School of Information Science at UFMG, Brazil. However, except JDOC, the articles published in other two journals received no citation. Some 26 other journals published one article each on Ranganathan related topics.

Table 4 shows a ranked list of scholarly journals where Ranganathan published his research, based on his Google Scholar profile. His preferred journals were mainly Indian LIS journals, concerning the number of contributed papers. Top three journal avenues of his published works were namely *Library Science with a Slant to Documentation* (presently *SRELS Journal of Information Management*), *Annals of Library Science* (presently *Annals of Library and Information Studies*) and *Herald of Library Science*. He was also instrumental in the establishment of these three Indian journals. He published his research in foreign journals as well such as in *Libri*, *Journal of Documentation*, *ASLIB Proceedings*, and *Information Storage and Retrieval* (presently *Information Processing & Management*). As indicated in this Table, many of his journal articles also received a good number of citations, while few journal articles could not attract any citation from the fellow researchers. His paper titled "Hidden Roots of Classification" is the top cited journal article, published in 1967 in *Information Storage and Retrieval*. This paper attracted 39 citations till date. His second important journal paper was titled "Subject Heading and Facet Analysis", published in *Journal of Documentation* in 1964, which attracted 28 citations till date. His third most cited journal paper

Table 4—Ranganathan's papers as appeared in scholarly periodicals: Google Scholar

Journal Name	Number of Papers	No. of Papers received citations	No. of Papers received NO citation	Highest Citations Received by a Paper	Present Publisher
Library Science with a Slant to Documentation/SRELS Journal of Information Management	53	34	19	25	Sarada Ranganathan Endowment for Library Science (SRELS), India
Annals of Library Science/Annals of Library and Information Studies	25	21	4	7	NISCAIR, India
Herald of Library Science	21	12	9	19	Lucknow, India
Libri: International Journal of Libraries and Information Services	9	5	4	6	Walter de Gruyter, Germany
Library Herald	8	7	1	6	Delhi Library Association, India
Journal of Documentation	3	2	1	28	Emerald, U.K.
Information Studies	2	0	2	0	Ranganathan Centre for Information Studies, India
Information Storage and Retrieval/ Information Processing & Management	1	1	0	39	Elsevier, the Netherlands
ASLIB Proceedings	1	1	0	2	Emerald, U.K.
Current Science	1	1	0	1	Current Science Association, India

was titled "Colon Classification Edition 7 (1971): A Preview", published in *SRELS Journal of Information Management* in 2002 (reprint), which attracted 25 citations till date. Many of his journal articles are now available in open access mode, resulting the possibility of getting more number of citations in near future. It is observed here that his books are more popular than his journal articles regarding attracting citations. This is due to his books are highly referred in LIS curricula and textbooks.

Highly Cited Publications on Scholarly Works of SR Ranganathan

Table 5 shows an indicative list of publications discussing contributions and works of Ranganathan. The papers in top few positions vividly discuss the theoretical frameworks of Ranganathan's facet analysis and facet classification schemes. Many authors also discuss Ranganathan's theoretical frameworks in today's context, analyzing his influence in designing modern ICT-enabled information systems and retrieval techniques. Table 5 also indicates that Ranganathan's theories are placed in the semantic web applications, designing search interfaces, organizing and accessing internet resources, organizing the World Wide Web (WWW), designing specialized databases and similarly other ICT-based services.

In the Table the top position is secured by a paper titled "The Need for a Faceted Classification as the Basis of All Methods of Information Retrieval"[11], written by British LIS educator Vanda Broughton and published in *Aslib Proceedings* in 2006. In this paper, the author cited Ranganathan's *Colon Classification* and *Prolegomena to Library Classification*. This paper received the most number of citations, with citations count respectively 53 in Scopus, 36 in WoS and 138 in Google Scholar. A quick review of the most cited papers reveal that most of these are published in post 1990s, and cover topics related to the organizing and searching information on the World Wide Web, grounded theory of qualitative research, knowledge representation, facet analysis and interdisciplinarity.

Most of the top cited papers for Ranganathan's work come from non-Indian researchers. Of top twenty papers in the Table 5, few are authored or co-authored by Indian LIS educators and scholars, namely, JC Binwal, SC Biswas, MP Satija, A Neelameghan and MM Kashyap. They also received a moderate number of citations as recorded in the citation databases. This Table also indicates that several information scientists and LIS educators paid tribute to Ranganathan after his death or during his centenary year. The list includes the founder of the Institute for Scientific Information (ISI) Eugene Garfield, and British information scientist Douglas John Foskett. Garfield wrote "A Tribute to SR Ranganathan, the Father of Indian Library Science" in two parts while Part 1 deals with life and works of

Table 5—50 top-cited papers on scholarly works of S R Ranganathan

Papers	Scopus Citations	WoS Citations	GSC Citations
Broughton V, The need for a faceted classification as the basis of all methods of information retrieval, *Aslib Proceedings*, 58(1/2) (2006) 49-72.	53	36	138
Ellis D and Vasconcelos A, Ranganathan and the net: using facet analysis to search and organise the world wide web. *Aslib Proceedings,* 51(1) (1999) 3-10.	34	26	72
Star S L, Grounded classification: Grounded theory and faceted classification, *Library Trends*, 47 (2) (1998) 218-32.	23	10	66
Ingwersen P and Wormell I, Ranganathan in the perspective of advanced information retrieval, *Libri*, 42 (3) (1992) 184-201.	20	10	54
Beghtol C, 'Facets' as Interdisciplinary Undiscovered Public Knowledge: SR Ranganathan in India and L. Guttman in Israel, *Journal of Documentation*, 51(3) (1995) 194-224.	18	18	30
Spiteri L, A simplified model for facet analysis: Ranganathan 101, *Canadian Journal of Information and Library Science*, 23 (1-2) (1998) 10-26.	18	32	117
Perreault J, Categories and relators: A new schema, *Knowledge Organization*, 21(4) (1994) 189-198.	11	7	24
Beghtol C, From the universe of knowledge to the universe of concepts: The structural revolution in classification for information retrieval, *Axiomathes*, 18 (2) (2008) 131-144.	8	8	21
Hjørland B, Facet analysis: The logical approach to knowledge organization, *Information Processing & Management*, 49 (2) (2013) 545-557.	7	6	23
Binwal J C, Knowledge representation: Concept, techniques and the analytico-synthetic paradigm, *Knowledge Organization*, 28 (1) (2001) 5-16.	7	5	21
Biswas S C and Smith F, Classed thesauri in indexing and retrieval: A literature review and critical evaluation of Online alphabetic classaurus, *Library and Information Science Research*, 11 (2) (1989) 109-41.	7	4	16
Satija M P, The revision and future of colon classification, *Knowledge Organization*, 24 (1) (1997) 18-23.	7	1	10
Foskett D J, Ranganathan and user-friendliness, *Libri*, 42 (3) (1992) 227-234.	6	4	14
Rafferty P, The representation of knowledge in library classification schemes, *Knowledge Organization*, 28 (4) (2001) 180-191.	6	5	29
Nasir Uddin M and Janecek P, The implementation of faceted classification in web site searching and browsing, *Online Information Review*, 31 (2) (2007) 218-233.	6	4	15
Rimland E, Ranganathan's relevant rules, *Reference & User Services Quarterly*, 46 (4) (2007) 24-26.	6	3	9
Neelameghan A, Application of Ranganathan's general theory of knowledge classification in designing specialized databases, *Libri*, 42 (3) (1992) 202-226.	6	3	15
Beghtol C, Exploring new approaches to the organization of Knowledge: The Subject Classification of James Duff Brown. *Library Trends*, 52(4), 702-718.	5	7	17
Kashyap M M, Likeness between Ranganathan's postulations based approach to knowledge classification and entity relationship data modelling approach, *Knowledge Organization*, 30 (1) (2003) 1-19.	5	5	7
Leiter R A, Reflections on Ranganathan's Five Laws of Library Science, *Law Library Journal,* 95(3) (2003) 411-418.	5	3	20
Brewerton A, The creed of a librarian: A review article. *Journal of Librarianship and Information Science*, 35 (1) (2003) 47-55.	5	0	14
Devadason F, Intaraksa N, Patamawongjariya P and Desai K, Search interface design using faceted indexing for web resources. In *Proceedings of the ASIS&T Annual Meeting,* 38 (2001) 224-238.	5	1	11
Barité M G, The notion of category: Its implications in subject analysis and in the construction and evaluation of indexing languages, *Knowledge Organization*, 27 (1-2) (2000) 4-10.	4	2	20
García-Torres A, Pareja-Lora A and Pradana-López D, (2008). Reutilización de tesauros: el documentalista frente al reto de la web semántica/Reusing Thesauri: Documentalists Face The Semantic Web Challenge. *Profesional de la Informacion*, 17(1), 8-21.	4	0	10

Fox R, (2005). Cataloging Our Information Architecture. *OCLC Systems & Services: International Digital Library Perspectives*, 21(1), 23-29.	4	X	10
Miksa S D, Burnett K, Bonnici L J and Kim J, (2007). The Development of a Facet Analysis System to Identify and Measure the Dimensions of Interaction in Online Learning. *Journal of the American Society for Information Science and Technology*, 58(11), 1569-1577.	4	3	8
Chung Y K, (1994). Bradford Distribution and Core Authors in Classification Systems Literature. *Scientometrics*, 29(2), 253-269.	4	6	6
Cochrane P A, (1992). Information Technology in Libraries and Ranganathan's Five Laws of Library Science. *Libri*, 42(3), 235-241.	3	3	20
Broughton V, (2008). Henry Evelyn Bliss - the Other Immortal, or a Prophet Without Honour?. *Journal of Librarianship and Information Science*, *40*(1), 45-58.	3	2	13
Devadason F J, Intaraksa N, Patamawongjariya P and Desai K, Faceted indexing based system for organizing and accessing internet resources, *Knowledge Organization*, 29 (2) (2002) 65-77.	3	2	12
Faiks A, Radermacher A and Sheehan A, What about the Book? Google-izing the Catalog with Tables of Contents. *Library Philosophy and Practice*, June 2007, (Available at: http://www.webpages.uidaho.edu/~mbolin/faiks.htm)	3	X	12
Stone A T, That elusive concept of aboutness: The year's work in subject analysis, 1992, *Library Resources & Technical Services*, 37(3) (1993) 277-298.	3	2	8
Kuronen T and Pekkarinen P, Ranganathan revisited: a review article, *Journal of Librarianship and Information Science*, 31(1) (1999) 45-48.	3	1	5
Garfield E, A tribute to S R Ranganathan, the Father of Indian Library Science. Part 1. Life and Works, *Current Contents*, 6 (1984) 5-12.	X	12	28
Noruzi A, Application of Ranganathan's Laws to the Web, *Webology* 1 (2) (2004) (Available at: http://www.webology.org/2004/v1n2/a8.html)	X	X	52
Cloonan M V and Dove J G, Ranganathan Online: Do Digital Libraries Violate the Third Law? *Library Journal*, 130 (6) (2005) 58.	X	2	17
Atherton P A, *Putting Knowledge to Work: An American View of Ranganathan's Five Laws of Library Science*. (Vikas Publishing House; Delhi) (1973).	X	X	15
Dahlberg I, *Ethics and Knowledge Organization in Memory of Ranganathan, SR in His Centenary Year*. (1992).	X	X	13
Srivastava A P, *Ranganathan, a Pattern Maker: A Syndetic Study of His Contributions, (*Metropolitan Book Company; Delhi), (1977).	X	X	12
Kumar G, *SR Ranganathan, An Intellectual Biography,* (Har-Anand Publications; Delhi) (1992).	X	X	12
Xiaojun W, Lib2. 0 and the contemporary implementation of the Five Laws of Library Science by Ranganathan, *Journal of Academic Libraries*, 4 (2007) 7.	X	X	11
La Barre K, Bliss and Ranganathan: Synthesis, synchronicity or sour srapes? *Advances In Knowledge Organization*, 7, (2000) 157-163.	X	X	9
Sharma R N, *Indian Academic Libraries and Dr. SR Ranganathan: A Critical Study*, (Sterling Publishers; Delhi) (1986).	X	X	8
Coblans H, Ranganathan in the International Scene. In *SR Ranganathan 1892-1972: Papers Given at a Memorial Meeting on Thursday 25th January 1973*, (Library Association; London), (1974) p. 27-30.	X	X	7
Rajagopalan T S, *Relevance of Ranganathan's Contributions to Library Science*, (Vikas Publishing House; Delhi), (1988).	X	X	7
Satija M P, *A Primer on Ranganathan's Book Numbers*, (Mittal Publications; Delhi) (1987)	X	X	7
Sharma R N, *SR Ranganathan and the West*, (Sterling Publishers; Delhi) (1992).	X	X	6
Thomas A R, The influence of SR Ranganathan on basic instruction in subject analysis at ALA-Accredited Library Schools, *Indian Librarian*, 32 (2) (1977) 51-53.	X	X	5
Yogeshwar R, *SR Ranganathan, Pragmatic Philosopher of Information Science: A Personal Biography*, (Bharatiya Vidya Bhavan; Delhi) , (2001).	X	X	5
Kaula P N, Some less known facts about Ranganathan, *Herald of Library Science*, 12 (1973) 126.	X	X	5
Finks L W, A centennial salute to Ranganathan, *American Libraries*, 23 (7) (1992) 593-594.	X	X	4

Matthews G O, *Influence of Ranganathan on Faceted Classification*, PhD Thesis, (Case Western Reserve University; USA), 1980.	X	X	4
Croft J B, Changing research patterns and implications for web page design: Ranganathan revisited, *College & Undergraduate Libraries*, 8 (1) (2001) 75-84.	X	X	4
Roe G, Challenging the control of knowledge in colonial India: Political ideas in the work of S R Ranganathan, *Library & Information History*, 26 (1) (2010) 18-32.	X	X	4
Garfield E, A tribute to SR Ranganathan, the Father of Indian Library Science, Part II. *Current Contents*, 7 (1984) 3-7.	X	X	2
Kumar P S G, *Ranganathan, a Multi-faceted Personality*. (BR Publishing Corporation; Delhi), (1992).	X	X	2
(Citations Count as on 13 July 2015)			

Ranganathan and Part 2 deals with his theories. Latin American LIS scholars and educators also published several papers discussing contributions of Ranganathan in LIS theories and practices.

The Table also includes bibliographic details of several monographic works on Ranganathan, contributed mostly by Indian LIS scholars, discussing how Ranganathan secured a permanent place in global LIS literature and global information theories. Top cited book is titled *Putting Knowledge to Work: An American View of Ranganathan's Five Laws of Library Science*, authored by American LIS educator Pauline A Atherton, published in 1973. It was based on the Sarada Ranganathan Endowment Lecture, the authored delivered in 1970. Another popular book is titled *Ranganathan, a Pattern Maker: A Syndetic Study of His Contributions*, authored by Indian LIS educator Anand Prakash Srivastava. The Table also indicates that books on Ranganathan received few numbers of citations, compared to journal articles.

Conclusion

The works of his successive LIS scholars indicate that S.R. Ranganathan has much relevance in today's world, particularly in a globalized, networked knowledge society. After posthumously achieving the distinction of a classic scholar in LIS, Google Scholar profile of Ranganathan is being accessed by thousands of LIS scholars and information scientists across the world. While we have experienced an exponential growth of internet resources, particularly the scholastic resources, theories of Ranganathan hopefully continue to guide us at the hypothetical level to implement multidimensional and multimodal information architecture in achieving semantic web and implementing web ontologies. The linguistic diversity in internet resources is another challenge, where Ranganathan's principles can be applied for multilingual knowledge representation and designing of efficient search and retrieval interfaces for the common netizens.

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