

quarterly e-zine of the international society for scientometrics and informetrics march 2005

### EDITORIAL



Quite a long, long time ago, ISSI Board decided to launch a Newsletter in order to provide relevant information to Society members in a fast and efficient manner. The original idea was to distribute this newsletter in traditional printed form.

At that time organisational and technical problems, however, prevented this idea from coming true. Since that decision was made, electronic communication has rapidly speeded up and the electronic discussion and information channels have made the necessity of such print medium questionable. Nowadays, heaps of unfiltered information like news, announcements and web-link references disseminated in electronic form, often sent in impersonal terms, flood all of us every single day. But speed and quantity alone do not guarantee adequate information services, too. This development has led us to take up the idea of creating a newsletter. Of course, the editors are not aiming at replacing distribution lists and discussion forums by a Newsletter; nor are we aiming at completeness, at publishing conference compilations, agenda lists or anything like that. On the contrary, our aim is to carefully select, bundle and present relevant information in an individual form along with contributions of common interest such as feature reports, facts and figures, literature reviews, conference reports, inter-

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### **Editorial Board**

Editor in chief: Wolfgang Glänzel Editors: Aparna Basu Ronald Rousseau Liwen Vaughan Editor: Balázs Schlemmer ISSI views, photos (with subtitles), cartoons and anecdotes. The ISSI Newsletter will also provide a forum for unsolved questions or problems in our field and for critical discussion papers. All contributions will be organised according to the following categories.

- editorial, letter to the editor
- items about individuals, interviews
- book review, literature alert
- notes, short communications, concise reviews, discussion papers
- news, event announcement, facts and figures
- events reports
- job opening, education issues

Relevant information will be collected by the editors; submitted contributions will be moderated, reviewed and compiled by the board. In particular, those Society members who wish to submit a contribution to the ISSI newsletter are kindly requested to contact the editorial board, and to submit their contributions electronically.

The newsletter will first appear quarterly, and will be available to all Society members in a good standing. The editors sincerely hope that beyond providing a new service, this Newsletter will help to improve communication among the Society members by regularly informing about the Society's life and the activities and problems of their members in a rather informal way, and also help to bridge the gap between the daily flood of unfiltered information and the formal communication of scientific publishing.

> Wolfgang Glänzel Editor-in-Chief

### CONFERENCE NEWS

# The 2005 Annual Conference of the Canadian Association for Information Science / L'association canadienne des sciences d l'information (CAIS/ACSI)

will be held from June 2 to June 4, 2005 as part of the annual Congress of the Canadian Federation for the Humanities and Social Sciences, in London, Ontario, Canada. The conference titled Data, Information, and Knowledge in a Networked World encompasses the broad spectrum from data to knowledge and investigates opportunities and challenges of information science in the networked world. There will be sessions on informetrics and Webometrics among various other topics. Informetrics researchers including Wolfgang Glänzel, Dietmar Wolfram, Michael Nelson, and Liwen Vaughan will present papers at the conference. For details of the conference program, please visit CAIS/ACSI Website http://www.cais-acsi.ca/home.htm. If you are interested in attending the conference, please see Website http://www.fedcan.ca/congress2005/index.htm for registration and accommodation details.

### International Conference to Commemorate C. Gini and M. O. Lorenz

23-26 May 2005, UNIVERSITY OF SIENA, SIENA, ITALY The University of Siena, Italy, will host, May 23-26, 2005, an International Conference to commemorate C. Gini and M. O. Lorenz Centenary Scientific Research. Topics: Income and Wealth Distributions, Lorenz Curve, Human Capital, Inequality and Poverty.

# APARNA BASU: SCIENTOMETRICS / BIBLIOMETRICS IN INDIA

India may have one of the largest community of bibliometricians in the world. There is no local journal devoted to scientometrics, but a number of scientometric issues are discussed in the journal Current Science.

Current Science, founded in 1932 is published by the Current Science Association in collaboration with the Indian Academy of Sciences It is intended as a medium of communication and discussion of important issues that concern science and scientific activity in India. Articles published in Current Science, especially editorials, opinions and commentaries, letters and book reviews, are deemed to reflect the individual views of the authors and not any official point of view.

The Indian Academy of Sciences (IAS), founded in 1934, aims at promoting the progress of science in India and upholding the cause of science in pure and applied branches. Activities include publication of scientific journals and recognition of significant individual contributions to science through fellowships of the Academy. Several journals of the IAS (including Current Science) are indexed by ISI for the Science Citation Index (about 10-11 journals are indexed from India each year).

Given below are links to some editorials from Current Science, and a special section on Scientometrics published in 2000 to commemorate the 75<sup>th</sup> birth anniversary of Eugene Garfield.

#### **Editorials:**

Balaram P., Science, scientists and scientometrics. Current Science 86 (5) (2004) 623-624. http://www.ias.ac.in/currsci/mar102004/623.pdf

Balaram P., Measure and Mismeasure of Science, Current Science 87 (3) (2004) 273 http://www.ias.ac.in/currsci/aug102004/273.pdf

Balaram P., Watching science watchers, Current Science 79 (5) (2000) 546. http://www.ias.ac.in/currsci/sep102000/546.pdf

#### **Tribute To Eugene Garfield:**

Arunachalam S., A tribute to Gene Garfield, the quintessential gatekeeper, Current Science 79 (5) (2000) 544. http://www.ias.ac.in/currsci/sep102000/544.pdf

#### **Special Section: Scientometrics**

Persson Olle, A tribute to Eugene Garfield – Discovering the intellectual base of his discipline, Current Science 79 (5) (2000) 590

Hedley R. Alan, Convergence in natural, social, and technical systems: A critique, Current Science 79 (5) (2000) 592

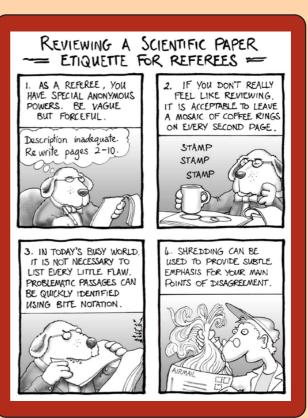
Vinkler Peter, Evaluation of the publication activity of research teams by means of scientometric indicators, Current Science 79 (5) (2000) 602

Jayashree B. and Subbiah Arunachalam, Mapping fish research in India, Current Science 79 (5) (2000) 613

Arunachalam S. and M. Jinandra Doss, Mapping international collaboration in science in Asia through coauthorship analysis, Current Science 79 (5) (2000) 621

Harnad S. and Leslie Carr, Integrating, navigating, and analysing open Eprint archives through open citation linking (the OpCit project), Current Science 79 (5) (2000) 629

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Kayvan Kousha is Ph.D student in Library and Information Science at University of Tehran (from 2002). He is chief-editor of one of the LIS monthly newsletter in Persian (from 1998). He has published an academic book about Internet search tools (2003) and authored 15 long encyclopedic articles in the Persian Encyclopedia of Library and Information Science. He has published five English papers in international journals and proceedings and more than 30 in Persian journals. In 1999, he was awarded the Best National Information Professional, and in 2000 obtained the Best LIS Workshop Award from the Ministry of Culture. He was awarded from three other Ministries for his research and educational activities in LIS area in Iran.

His main research inertest is link creation motivation and during last year he has presented two researches in the international conferences on the above topic. He has been accepted as a visiting Ph.D. Student at University of Wolverhampton to conduct his ISSI award winning Doctoral dissertation (Eugene Garfield Doctoral Scholarship 2005) entitled "Motivations for Linking to Open Access Scholarly E-Journals: A Comparison of the Characteristics of Web Citations in Six Science and Social Science Disciplines."

## INTRODUCING KAYVAN KOUSHA

### Awardee (2005) of the Eugene Garfield Doctoral Scholarship

**Title of his doctoral dissertation**: Motivations for Linking to Open Access Scholarly E-Journals: A Comparison of the Characteristics of Web Citations in Six Science and Social Science Disciplines

**Abstract**: The current study intends to classify link creation motivations to articles in the open access scholarly journals in six science and social science disciplines. The number and type of links to e-articles in each studied disciplines are classified in terms of formal or informal scholarly reasons. The macroscopic information extracts from those sources of web links equivalent to citations (web citations) in other to identify the characteristics of sources of web citation within and among selected disciplines, including the language; publication year; file format; content level; and type of web citation. The correlation between ISI and web citation counts on the individual article level and journal level is investigated. The study aims:

• To investigate and classify apparent link creation motivations to open access scholarly journals and trends of using them in the formal/informal scholarly communications;

 To identify characteristics of sources of web links equivalent to citations (web citations);

• To investigate relationship between web (web citation) and traditional citation patterns (ISI citation) on the individual article level and journal level;

• To study disciplinary differences on motivations for creating links to open access journals and characteristics of sources of web citations;

 To gain some quantitative and qualitative evidences on characteristics of scholarly publication on the web for design and development of scholarly search tools and citation indexes.

# Book Review\* Personalized Number Crunching in a Handbook.

– A quasi book review –

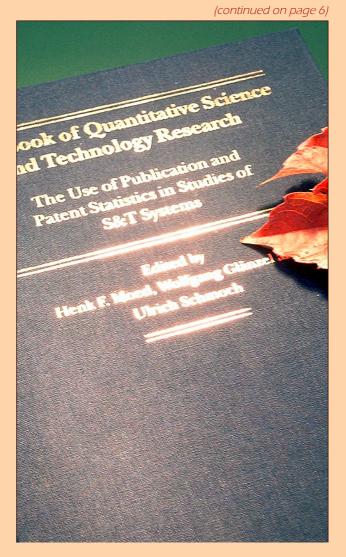
 Handbook of Quantitative Science and Technology Research. The Use of Publication and Patent Statistics in Studies of S&T Systems.
НЕЛК F. MOED, WOLFGANG GLÄNZEL, ULRICH
SCHMOCH (Eds), Kluwer Academic Publishers, Dordrecht, The Netherlands, 2004, X, 800 p., Hardcover, ISBN: 1-4020-2702-8

A regular book review scrutinizes its object's textual content according to the actual, worldwide standing of the topic and to the personal views of the reviewer. By taking into account that the object of this review is a handbook, in addition, the journal in which the review appears is dealing with quantitative studies of science, and the handbook itself is dedicated to scientometrics, the reviewer takes the liberty of deviating from the rule. He feels that in some respect this can be justified by a minor modification in the "official" dictionary definition of handbooks..."handbooks attempt to bring together in one place all the reliable information available at the time of publication pertaining to some subdiscipline." That's why it is attempted here to bring together in tables and to rank by frequency the producers of the most reliable information in the field, instead of their products (papers) and to do the same with the main publication channels, i.e., the core journals, in which the reliable products (papers) have been published. We do consider that by knowing those who, according to this handbook, have contributed in a multiple way to the actual wisdom of the field, presents a new and interesting insight into that side of scientometrics, the handbook claims to be dedicated to.

Although, we suppose that most of those scientists who are doing research in scientometrics and even those readers whose heart is somewhat attracted by quantification in science will find the rankings interesting but won't feel mistakenly that the tables which follow represent the absolutely true mirror and reflection of all values and treasures of worldwide scientometrics.

Finally, we think that a few words on the obliteration phenomenon in science would be in order. Therefore, we have to add a few names which are missing from the tables by obliteration. They are common knowledge, Derek Price, Vassily Nalimov, Michael Moravcsik and Eugene Garfield come to mind on a compulsory basis.

As an addition, the publication channels, i.e., the core journals in which all the abovementioned authors have published their findings are also of paramount interest. That's why the tables include also the ranked list of core journals.



<sup>\*</sup> This Book Review is to appear in *Scientometrics*, Vol. 63, No.1 (2005) 185-188. Reproduced with permission of the author and publisher.

#### Table 1. Authors most cited in the Handbook

Author	Citations						
	To	tal	Without self-cit.	Without self-cit.			
	Number	Rank	Number Rank*				
Narin, F.	48	1	45 1				
Van Raan, A.F.J.	43	2	22 4				
Glänzel, W.	39	3	27 3				
Moed, H.F.	30	4	30 2				
Schmoch, U.	28	5	14 12				
Tijssen, R.J.W.	23	6	16 9–10				
Jaffe, A.B.	21	7–8	12 14–15				
Trajtenberg, M.	21	7–8	21 5				
Van Leeuwen, Th.N	. 20	9	15 11				
Grupp, H.	19	10	17 7–8				
Nederhof, A.J.	18	11	18 6				
Simar, L.	17	12	17 7–8				
Braun, T.	16	13–15	10 18–21				
Noyons, E.C.M.	16	13–15	12 14–15				
Pavitt, K.	16	13–15	16 9–10				
Schubert, A.	15	16	10 18–21				
Rousseau, R.	14	17	9 22–25				
Thelwall, M.	13	18–19	13 13				
Zitt, M.	13	18–19	1 29–30				
Ingwersen, P.	12	20-21	6 27				
Luwel, M.	12	20-21	9 22–25				
Arunachalam, S.	11	22–25	2 28				
Griliches, Z.	11	22–25	11 16–17				
Hinze, S.	11	22–25	9 22–25				
Olivastro, D.	11	22–25	11 16–17				
Bassecoulard, E.	10	26–30	1 29–30				
Noma, E.	10	26–30	10 18–21				
Patel, P.	10	26–30	9 22–25				
Persson, O.	10	26–30	8 26				
Small, H.	10	26–30	10 18–21				

\* within the top cited 30 authors

### Table 2. Authors most cited in the Scientometrics and in the Technometrics chapters of the Handbook

Author	Citations					
	Total	Sciento	metrics	Technometrics		
		Numbe	er Rank	Number Rank		
Narin, F.	48	24	4	24	1	
van Raan, A.F.J.	43	35	2	8	8–10	
Glänzel, W.	39	37	1	2		
Moed, H.F.	30	28	3	2		
Schmoch, U.	28	11		17	4	
Tijssen, R.J.W.	23	14	10-11	9	6–7	
Trajtenberg, M.	21	3		18	3	
Jaffe, A.B.	21	2		19	2	
van Leeuwen, Th.N.	20	20	5	0		
Grupp, H.	19	10		9	6–7	
Nederhof, A.J.	18	18	6	0		
Simar, L.	17	17	7	0		
Braun, T.	16	16	8	0		
Noyons, E.C.M.	16	11		5	12	
Pavitt, K.	16	4		12	5	
Schubert, A.	15	15	9	0		
Rousseau, R.	14	14	10-11	0		
Thelwall, M.	13	13	12	0		
Patel, P.	10	2		8	8–10	
Meyer, M.	8	1		7	11	
Cantwell, J.	8	0		8	8–10	

#### Table 3. Most cited journals

Journal	Citations					
	Total		Scientometr.		Technometr.	
	Nr.	Rank	Nr.	Rank*	Nr.	Rank*
Scientometrics	194	1	167	1	27	2
Research Policy	94	2	35	3	59	1
JASIS/JASIST	56	3	53	2	3	14
Res. Evaluation	22	4	18	4	4	12-13
J. Econ. Literat.	16	5	7	10-11	9	4
Nature	13	6	13	5	0	18–25
J. Inform. Sci.	12	7–9	11	7–9	1	15–17
Science	12	7–9	12	6	0	18–25
World Patent Inf.	12	7–9	1	20-21	11	3
Econ. Educ. Rev.	11	10-11	11	7–9	0	18–25
J. Documentation	11	10-11	11	7–9	0	18–25
Rev. Econ. Stat.	10	12	5	14-18	5	7-11
Amer. Econ. Rev.	9	13–14	4	19	5	7-11
Management Sci.	9	13–14	5	14-18	4	12-13
Inf. Proc. & Manag.	8	15	7	10-11	1	15–17
J. Econometrics	7	16-17	6	12-13	1	15–17
Res. Techn. Manag.	7	16-17	0	22–25	7	5
Chin. J. Sci. Tech. P.	6	18–20	6	12-13	0	18–25
Ind. Corp. Change	6	18–20	0	22–25	6	6
Tech. Forecast. S.C.	6	18–20	1	20-21	5	7-11
J. Product. Anal.	5	21–25	5	14-18	0	18–25
Library Trends	5	21–25	5	14-18	0	18–25
R&D Management	5	21–25	0	22–25	5	7-11
Rand J. Economics	5	21–25	0	22–25	5	7-11
Sci. & Public Policy	5	21–25	5	14-18	0	18–25

\* within the top cited 25 journals

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### RONALD ROUSSEAU:

# ANOTHER LOOK AT SMALL WORLDS: One Node Set – Two Link Structures

The Hungarian writer *Frigyes Karinthy* proposed already in 1929 the idea that any two persons on the planet can be connected through a chain of at most five intermediaries (Karinthy, 1929; Braun, 2004). This idea, known as the Small World phenomenon, has been taken up independently by

Milgram (1967) who performed his famous letters experiment from Wichita, Kansas to Cambridge, Massachusetts. Technical details of his experiments are provided in (Travers & Milgram, 1969). More recently Duncan Watts and Steven Strogatz (1998) contributed to the popularisation of



the term, sparking a broad interest among many scientists from various fields. Closer to the field of informetrics the contributions of Ithiel de Sola Pool and Manfred Kochen should be mentioned (de Sola Pool & Kochen, 1978; Kochen, 1989).

I would like to make the following observation. It was considered a 'surprise' that two persons, living very far away from each other could be joined by a short chain of acquaintances. I think some kind of mix-up has occurred leading to the so-called surprise. In a 'neighbour' network persons who live a long distance from each other need a lot of links before they are joined by a shortest path. However, an 'acquaintance' network is a different network, so it seems to me that the experiment took place in the acquaintance network and the surprise in the neighbour network. This mix-up occurred probably for the simple reason that most neighbours are also acquaintances. As a mathematician this observation would lead me to the study of graphs (networks) with the same node sets but with different link sets. Has anyone studied Small Worlds in this framework? Or has anyone studied such graphs, and if so, have the results been applied to Small Worlds? Possible applications in the field of webometrics are paramount (Björneborn, 2004).

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