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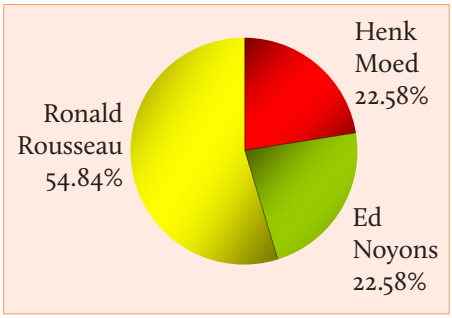
EDITORIAL

RESULTS OF THE ISSI ELECTIONS

As the Reader most likely knows it very well, ISSI carried out its latest president & board member elections in the recent months. After the closure of the nomination turn, the challenge was accepted by 3 out of 15 president candidates and 26 out of 41 board member nominees. Slightly more than half of the members having the right to vote visited the ISSI website to cast their ballots, which is a rather high participation rate, especially if one takes into account the difficulties stemming from internationality and the nature of online voting. A few repeated votes have been removed from the results (in these cases only the last valid votes were taken into account). No attempt of fraudulent behaviour of any kind has been noticed during the nomination and election turns. As for the presidency, the members ranked ISSI's current president, Ronald Rousseau for the first position again, the two other candidates (Henk Moed and Ed Noyons) acquired exactly 50-50% of the remaining votes. The 3 open board member positions have been filled up with Ed Noyons (13%), Henk Moed (11%) and Leo Egghe (7%). The relatively high number of nominees made the distribution of votes somewhat skewed with a long tail, but 7 other members received at least ten votes: J. Bar-Ilan, K. Boyack, J. Gorraiz, J. Leta, L. Liang, J.M. Russell and M. Thelwall. Many thanks for all members whose participation made it a successful election!



Balázs Schlemmer, election assistant

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THE ROYAL SCHOOL OF LIBRARY & INFORMATION SCIENCE ANNOUNCES THE

16TH NORDIC WORKSHOP ON BIBLIOMETRICS AND RESEARCH POLICY.

22-23 SEPTEMBER 2011, AALBORG, DENMARK

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Bibliometric researchers in the Nordic countries have arranged annual Nordic workshops on bibliometrics since 1996. The general idea of the workshop is to present recent bibliometric research in the Nordic countries and to create better linkages between bibliometric research groups and their PhD students. The workshop language is English and the workshop is open to participants from any nation. The workshop is also open to participants who wish to take part without presenting. There are no fees for participating in the Nordic workshops on bibliometrics. However, travel, accommodation and all meals have to be financed by the participants themselves.

The Royal School of Library & Information Science's Aalborg department is located on the campus of Aalborg University.

Program and details concerning travel and accommodation will be announced on the workshops website in due time: http://www.iva.dk/nbw2011.

IMPORTANT DATES

Deadline for registration and abstract submission: **August 15th, 2010**. Send registration (name, institutional affiliations) and abstracts (approximately 200 words) to the workshop coordinator: Jens Peter Andersen (*jpa [at] iva dot dk).*

Further questions can be addressed to the workshop coordinators:

- Jesper W. Schneider (*jws [at] iva dot dk),*
- Birger Larsen (*blar [at] iva dot dk)* or
- Jens Peter Andersen (*jpa [at] iva dot dk)*

ANNOUNCEMENT: CWTS GRADUATE COURSE 'MEASURING SCIENCE AND RESEARCH PERFORMANCE'

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This course will take place from September 26–30, 2011 at CWTS, Leiden University, the Netherlands.

The aim of this course is to provide a serious grounding in all aspects of quantitative analysis of science and technology. The emphasis will be on understanding in depth the various bibliometric and patent analysis approaches. It is intended that each approach should be understood within the overall context of the present development of science and technology and particularly of knowledge communication practices in science.

The course is designed for professionals, i.e., academics, librarians, assistant professors, general secretaries, evaluation officers and (Master)students. The course will be taught by lecturers from the Centre for Science and Technology Studies (CWTS), Leiden University.

The methods of instruction will be seminar, practica.

The course fee is € 1800,-.
Maximum amount of participants is 22.
Admission is at a first-come, first-served basis.

For more information and registration please visit the Graduate Course webpage: http://www.socialsciences.leiden.edu/cwts/education/graduate-course2-cwts.html

INTRODUCING STEFANIE HAUSTEIN

AWARDEE (2011) OF THE EUGENE GARFIELD DOCTORAL DISSERTATION SCHOLARSHIP

TITLE OF DISSERTATION:

Multidimensional Journal Evaluation. Analyzing Scientific Periodicals beyond the Impact Factor

ABSTRACT:

In the natural sciences communication depends primarily on the publication of research results in the form of journal articles. This leads to an enormous amount of scientific journals which makes selection necessary. Scientometric indicators can help with this selection process. The most important indicator to identify influential journals of a scientific field is the Impact Factor (IF).

Although new indicators emerge frequently within the bibliometric community, in applied bibliometrics the IF seems to be the cure-all measure in journal analyses: authors apply it to choose the best suited journal for publications, readers to find important papers to read, librarians to compile literature and editors and publishers to analyze the market. It is even misused for decisions regarding tenure and promotion. Evidently, communication deficiencies exist, which prevent the transfer of improved and more comprehensive methods from bibliometric research to the users of journal evaluation.

The thesis aims to give an overview of multidimensional evaluation methods and intends to make journal evaluation more transparent. It wants to find a way

Stefanie Haustein has been a PhD student in Information Science at Heinrich Heine University Düsseldorf since 2008, where she also teaches bibliometrics and supervises bachelor's and master's theses. Her doctoral research is supervised by Prof. Dr. Wolfgang G. Stock (Heinrich Heine University Düsseldorf) and Prof. Dr. Christian Schlögl (Karl-Franzens-University Graz).

Stefanie holds a PhD student position in the bibliometrics team at Forschungszentrum Jülich, where she has been involved in several internal and external analyses including a comprehensive country-level study for the International Bureau of the German Federal Ministry of Education and Research (BMBF).

Stefanie's research focuses on the evaluation of scholarly journals. She is particularly interested in multidimensional approaches beyond the Impact Factor, including new kinds of usage data introduced through social media. She frequently presents her research results at national and international conferences and has published in international journals. At the ISSI 2009 Doctoral Forum in Brazil Stefanie presented the preliminary research design of her doctoral project.

Stefanie won the Best Poster Award at the 11th Science and Technology Indicators Conference in Leiden. She was offered a short research stay at CWTS, where she was provided with the opportunity to present preliminary results of her work.

to close the communication gap between bibliometric researchers and users to further develop journal evaluation methods in a direction they were initially meant for: helping users, i.e. readers, authors, and librarians, to select the most suitable sources of information and appropriate venues for publication.

Five dimensions of journal evaluation are identified that influence a periodical's standing and should thus be included in its evaluation: journal output, journal content, journal perception, scientific communication and journal management evaluate a periodical within the whole process of reviewing, publishing, being read and cited. A set of 45 journals from solid state physics with over 168,000 documents published between 2004 and 2008 serves as a test set for a detailed comparison of indicators.

Initial results of the study showed that many measurements are not generally applicable because the underlying data is inaccessible, unreliable or incomplete. For example, usage indicators are able to depict readership, i.e. journal perception, but the acquisition of download statistics remains highly problematic. Alternative ways to gather global article-based usage data are thus introduced. Also supposedly new journal indicators are introduced frequently, although they are slightly modified versions of existing measurements, which adds to complexity and intransparency. Furthermore, different computational methods can have significant effects on measured results. Even if correlations are strong, citation impact values can differ in detail, which can have huge negative effects on the ranking of individual journals.

In order to preserve multi-faceted characteristics of indicator results, the thesis makes use of social network analysis and journal mapping techniques to deliver insight into the complex interrelations into the publishing landscape.

A TALE OF TWO CITIES: A SCIENTOMETRIC COMPARISON OF BEIJING AND NEW DELHI USING AN iCX MAP REPRESENTATION

GANGAN PRATHAP
NISCAIR
New Delhi, India

Nature (2010) reported recently, using a very evocative graphical representation (www.nature.com/cities), on an analysis by Elsevier using Scopus data to study how publication activity has varied over time (2000 to 2008) at selected cities in the world. Institutions were assigned to cities depending on the addresses provided by the author. Top cities by citation were presented on a two-dimensional chart with the output (i.e. number of articles, say *P*) along the x-axis and the relative citation impact along the y-axis. The relative citation impact (say *i*) was computed using citations received by articles in rolling 5-year windows from 2000 to 2008 (i.e. 2000 is 1996-2000, etc.) and these have been weighted for research field and then normalised to a global average of 1. It is understood that while *P* is a quantity measure (output), *i* is inherently a quality measure. This representation is very similar to the approach this author has proposed recently (Prathap, 2010) except that now, output *P* is used as the unit of measurement along the x axis.

Due to the nature of the interactive graphics used in the online edition (http://www.nature.com/news/specials/cities/best-cities.html), it was possible to extract the values of *i*

	New Delhi				Beijing			
	i	*P*	*C*	*X*	*i*	*P*	*C*	*X*
2000	0.40	15063	6025.20	2410.08	0.33	72617	23963.61	7907.99
2001	0.40	15445	6178.00	2471.20	0.36	82367	29652.12	10674.76
2002	0.41	16197	6640.77	2722.72	0.38	92041	34975.58	13290.72
2003	0.43	17365	7466.95	3210.79	0.42	105498	44309.16	18609.85
2004	0.45	18987	8544.15	3844.87	0.47	130835	61492.45	28901.45
2005	0.47	21288	10005.36	4702.52	0.53	170299	90258.47	47836.99
2006	0.51	23938	12208.38	6226.27	0.57	215465	122815.05	70004.58
2007	0.55	26808	14744.40	8109.42	0.61	266015	162269.15	98984.18
2008	0.61	29209	17817.49	10868.67	0.63	318940	200932.20	126587.29

Table 1. Comparison of the scientometric performance of Beijing and New Delhi.

and *P* (and *C* can be computed from this as $C = iP$) directly by moving the cursor on the web-enabled figures. It will be educative to see how New Delhi has fared relative to Beijing in the period covered by the Elsevier study. Table 1 shows the data extracted. Note that as *i* is a normalised (hence relative) impact, *C* is now normalised in the same fashion and is a proxy for the actual total number of citations obtained during the window. The product *iC* (also i^2P) is an energy like term (called exergy *X*) and is a scalar measure of the scientific activity during the window concerned that takes into account both quality and quantity. We see from Table 1 and Figure 1 that Beijing's research output in quantity terms has surged rapidly and in quality terms has

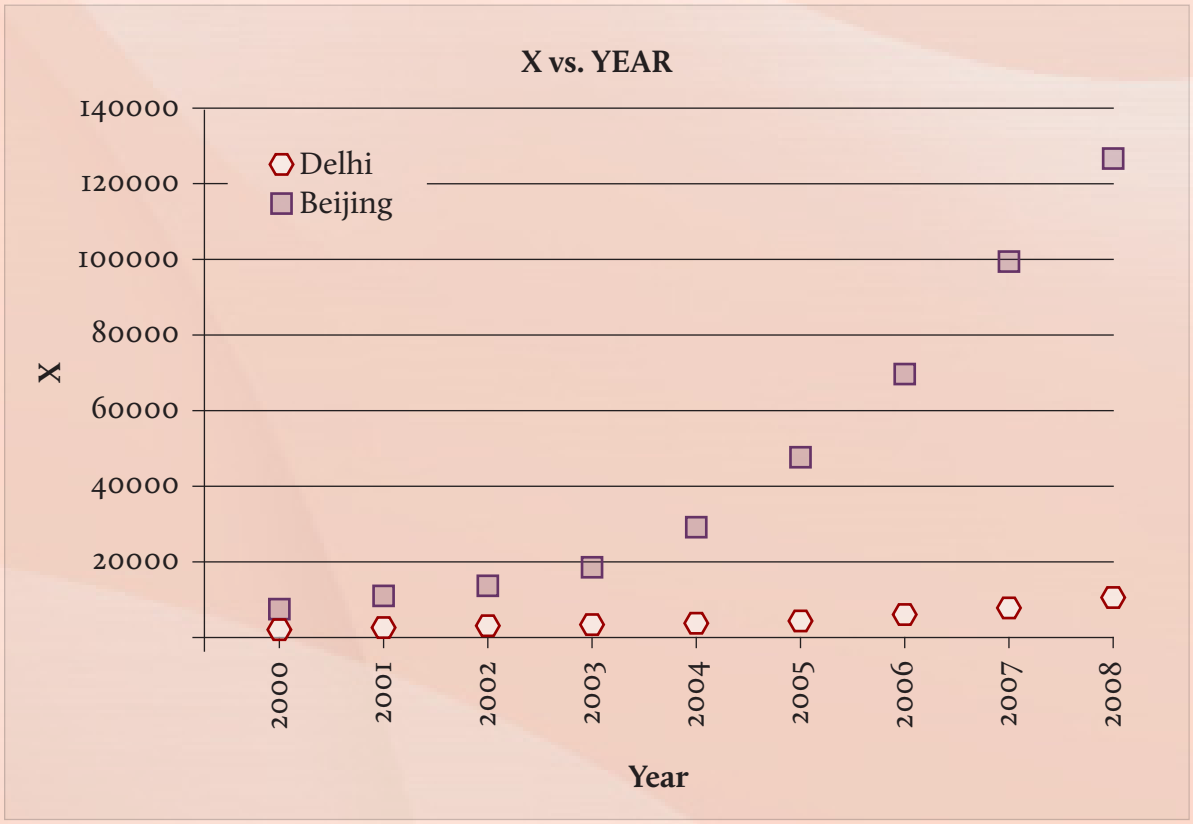

Figure 1. Beijing's research output in quantity terms has surged rapidly and in quality terms has marginally eclipsed the performance of New Delhi (see also Table 1). In exergy terms, Bejing is now nearly 12 times as active as New Delhi.

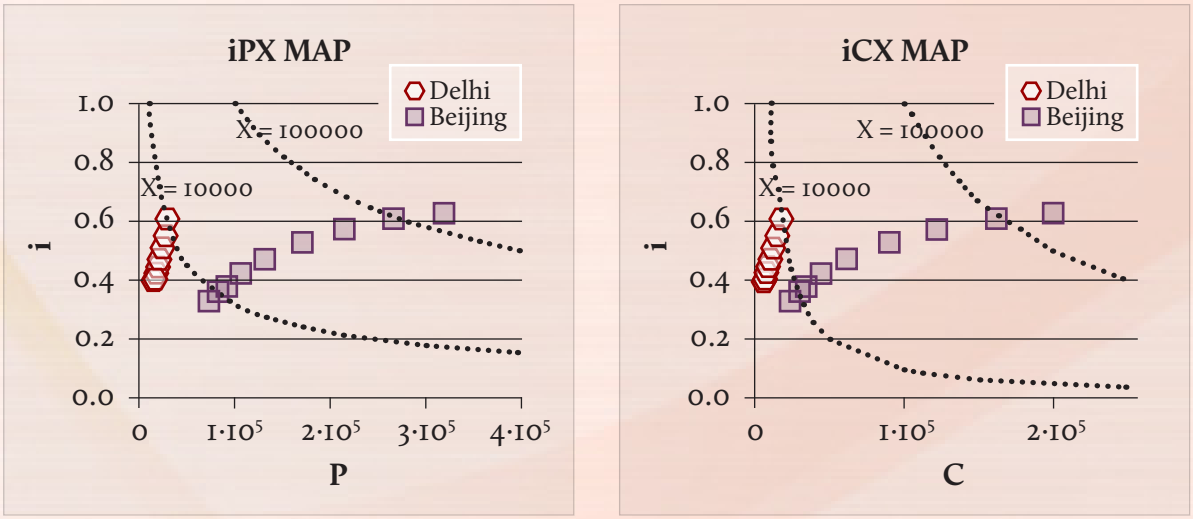

Figure 2. The iPX and iCX maps compared.

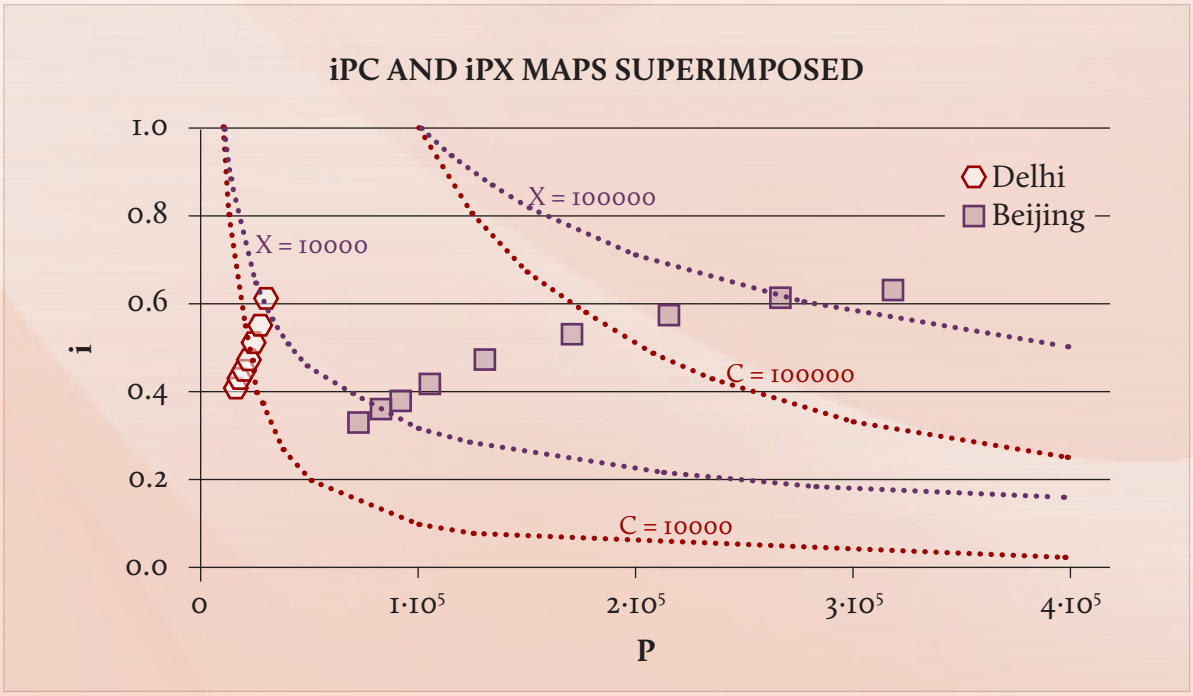

Figure 3. The iPC and iPX maps can be superimposed showing the contour lines for constant C and constant X.

marginally eclipsed the performance of New Delhi. In exergy terms, Beijing is now nearly 12 times as active as New Delhi.

Figure 2 shows alternative ways of presenting the information as two-dimensional maps. The analysis presented in Nature (2010) follows the iP representation and in such a case, the contour lines for X are obtained from the formula $X = i^2P$. The map proposed by the present author uses the iC representation, in which the contour lines for X emerge from the hyperbolic product of i and C. Figure 3 shows how the iPC and iPX maps can be superimposed showing the contour lines for constant C and constant X.

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ON THE ROLE OF PROCEEDING PAPERS PUBLISHED IN JOURNALS

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ABSTRACT

The present piece refers proceeds from results of a recent study by Gonzalez-Albo and Bordons (2011), in which the authors analysed the role and impact of proceedings literature in LIS journals. We extend the research to other fields in the sciences and social sciences and address additional research questions regarding publication frequency and citation impact as well as their differences in individual journals and subject fields.

1. INTRODUCTION

Recently Gonzalez-Albo and Bordons (2011) have published a study of the proceedings literature published in journals in the field of Library and Information Science. In their paper, the authors made also distinction between proceedings in ordinary issues and those published in monographic issues. Among others, they addressed the question of whether proceedings papers in journals receive less citations than other research articles. According to one of their main findings, proceedings papers in monographic issues tend to receive less citations than those published in ordinary issues or than regular articles. In the present paper we would like to extend the research to a broader scope on the basis of three-year citation windows allowing to apply standard citation indicators. We will also extend the list of research questions towards subject analysis.

In 2008, the Thomson Reuters' *Web of Science* changed the document type "paper" that have initially been presented at a scientific meeting and then been published in an scholarly journal if in the paper explicit reference

is made to the meeting. The new document type for journals papers is called "proceedings paper". Although the Web of Science (WoS) uses the same document type for papers indexed in the two editions of *Conference Proceedings Citation Index* (Science – CPCI-S and Social Science and Humanities – CPCI-SSH), there are differences between these two kinds of "proceedings paper". In most of the cases, the proceedings paper published in journals is expected to represent a more elaborate version since these papers often have undergone an additional reviewing and selection process or, at least, a careful revision according to the requirements of the particular journal, where the paper has finally been published. The authors actually attempt to improve visibility and impact of their research by submitting the results to a periodical instead of or in addition to the conference material published in a book. Even if the editors of a journal decide to publish a special issue dedicated to a conference or workshop, the limited space available in a periodical often results in a stricter selection than in a possible book edition. On the other hand, in many fields, there are higher credits assigned to journal publications than to proceedings material in books in the framework of research assessment exercises. For distinguishing the two types of proceedings paper in the WoS, we use the abbreviation PP for conference proceeding papers and PPJ for those published in regular journals.

In some researchers' view, a high percentage of journal publications deriving from a conference is an indication of its high quality (Miguel-Dasit et al, 2006). However, publication and citation behaviour dramatically differ from one field to another. Goodrum et al. (2001) regarded conference proceedings as a substitute for journal publication in some engineering fields; this view is based on discussions with computer scientists who consider conference proceedings as final research output and do not feel the need to republish the results in journals. Glänzel et al. (2006) extended the analysis on proceedings to all fields of the sciences, social sciences and humanities, and conclude that the proceedings literature is valuable supplement to the journal literature. In a case study by Aleixandre-Benavent et al. (2009) on the conference series of the International Society for Scientometrics and Informetrics (ISSI), the authors reported that more than a quarter of the presentations at the three ISSI meetings under study were ultimately published in peer-reviewed journals and cited in international databases.

Unlike other related studies (e.g., Frohlich and Resler, 2001; Goodrum et al., 2001; Lisee et al., 2008; Bar-Ilan, 2010), which focused on the comparison of conference proceedings (PP) and the journal publications, we are going to compare proceedings paper appearing in journals (PPJ) and "regular" research papers in journals. This issue still remained largely unexplored. As already mentioned in the outset, differences exist between the conference proceedings (PP) and the extended versions published in journals (PPJ). There are basically the following assumed advantages of PPJ compared to PP.

- The content of PPJ is normally more complete and matured.
- To a certain extent, the quality of PPJ is more guaranteed as it has passed through at least two rounds of reviewing.
- The PPJ is published with more novelty requirement from journal editors.
- There is less strict page limitations for PPJ, thus more detailed information of the research is expected from PPJ.
- The questions and discussions in the conference should have positive impact on the improvement of PPJ.
- The PPJ is normally easier accessible and more visible than PP.
- The PPJ is in general ageing slower than PP.

The question arises that whether the abovementioned "advantages" of PPJ could be reflected by their citation impact? Does it really help increase the citation impact of a research by communicating and gathering feedback in a conference before submitting to a journal?

In their recent comparative study of "regular" journal articles versus PPJ in Library and

Information Science, Borja and Maria (2011) found significant differences between articles and PPJ concerning their structure and citation impact. In the present study, we attempt to extend the research to a much larger scope of fields in the science and social sciences. Unlike the study by Borja and Maria (2011), we will focus on the evolutional profile and citation impact of PPJ versus the regular journal papers among different fields. Furthermore, we will not use a variable citation window during the period under study but we will apply a fixed citation window to be able to provide a more comparable analysis of citation impact.

In particular, we address the following research questions:

- What is the general weight of PPJs in journals?
- What is the evolutional trend over years and what differences could be traced among different fields?
- Are there general differences between the PPJs and the regular journal papers with regard to citation impact?

The results of this study are expected to help understand the underlying mechanism of scholarly communication, to help bibliometricians in evaluating the scientific conferences. Furthermore, we expect some hints or suggestions for editorial boards of scientific journals and the organisers of scientific conferences on basis of the findings.

2. DATA SOURCES AND DATA COLLECTION

The PPJ data were collected from the 1999-2008 annual volumes of the *Science Citation Index Expanded* (SCIE) and *Social Sciences Citation Index* (SSCI) of the Web of Science. Only the two document types "Proceedings paper" and "Article" have been retrieved. A three-year citation window beginning with the publication year was used for each publication. The 15-field delineation scheme developed at ECOOM in Leuven was chosen for the journal classification. The ECOOM classification scheme comprises 15 major fields, including 12 science fields and 3 fields in the social sciences and humanities. In the current research, we selected five fields in basic and applied sciences (Computer science, information technology; Applied physics; Immunology; Applied mathematics; Psychology & behavioural sciences) and one field in the social sciences (Education & information) to conduct the comparative study. In the field case studies, only journals with at least 30 PPJ and 30 articles each in the period under study were taken into consideration. Furthermore, journals, which received in total less than 50 citations based on the three-year citation windows were removed.

3. RESULTS

3.1 THE EVOLUTIONAL TREND OF PPJ IN WEB OF SCIENCE

A total of 1,050,483 proceeding papers published in journals and indexed in the 1999-2008 updates of the Web of Science could be retrieved. The share of PPJ in all research papers of document type article or proceeding papers thus amounts to 11.80%. In Figure 1, we observe that the proportion of PPJ reached a peak in 2003 (13.82%), and showed a decreasing trend afterwards. A dramatic decline of the PPJ share started in 2006, with a loss of almost 5 percentage points till 2008 with respect to 2006.

Figure 2 presents the citation impact of PPJ and articles during 1999-2008. The articles have an obviously higher impact than PPJ in the whole period under study. However, the divergence of citation impact is diminishing since 2006. There was a dramatic increase of citation impact of PPJ in 2006-2007, while the mean citation of articles showed a decreasing trend during 2007-2008. It is interesting that the point of inflection of both the PPJ share and the citation impact occurred in 2006.

3.2 PPJ IN DIFFERENT FIELDS

For this study we have selected five fields in the basic and applied sciences (Computer

Field	Mean Citation of PPJ	Mean Citation of Article	Mean Citation (PPJ / Article)
Computer science, information technology	1.22	2.42	0.50
Immunology	3.91	7.54	0.52
Applied mathematics	1.52	2.10	0.73
Applied physics	2.10	2.83	0.74
Education & information	1.76	1.75	1.00
Psychology & behavioral sciences	3.91	3.65	1.07

Table 1. Mean citation rates of PPJ and "regular" articles in different fields (1999-2008)

science, information technology; Applied physics; Immunology; Applied mathematics; Psychology & behavioural sciences) and one field in the social sciences (Education & information). Figure 3 shows the share of PPJ in different fields. As expected, Computer science, information technology, where proceedings are usually a main publication channel, has the biggest share of PPJ. Almost half the journal publications in this field are proceedings papers. It is somewhat surprising to find a rather big share of PPJ (40.40%) in Applied physics. Compared to the other fields, Psychology & behavioural sciences has a much less shares of PPJ among its journal publications.

In Figure 4, we present the evolutional trend of PPJ in different fields. Computer science, information technology showed a quite interesting trend with some dramatic ups and downs in the period under study. The starting points of its PPJ proportion were around 35%-40% in the period 1999-2002. After a rapid growth, it reached a peak of 63% in 2004, which means almost two thirds of its journal publications were proceedings papers in the year of 2004. However, there was then a dramatic descending trend since 2006, and ended in a quite low percentage of 21% in 2008. The abrupt drop of PPJ share in Computer science, information technology during 2006-2008 has an obvious impact on the overall trend of PPJ shares in the same period (see Figure 1). The evolution of the PPJ share in the other selected fields is less spectacular. However, all fields show a certain decline, notably in the second half of the period.

3.3 CITATION IMPACT OF PPJ VERSUS REGULAR JOURNAL PUBLICATIONS

Compared to the regular journal publications, PPJ seem to have several advantages, such as the "double" review process, im-

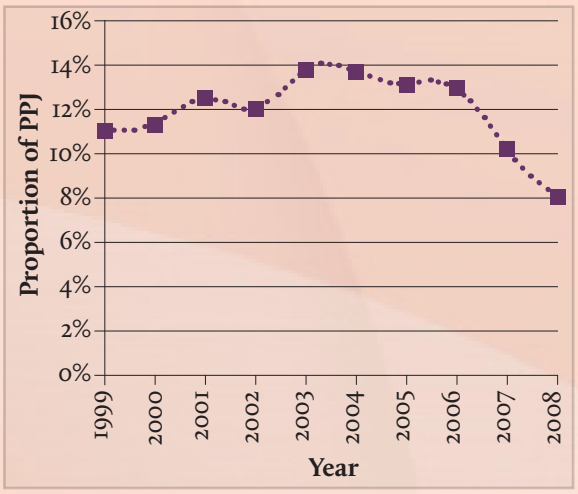

Figure 1. The evolutional trend of PPJ proportion in WoS during 1999-2008

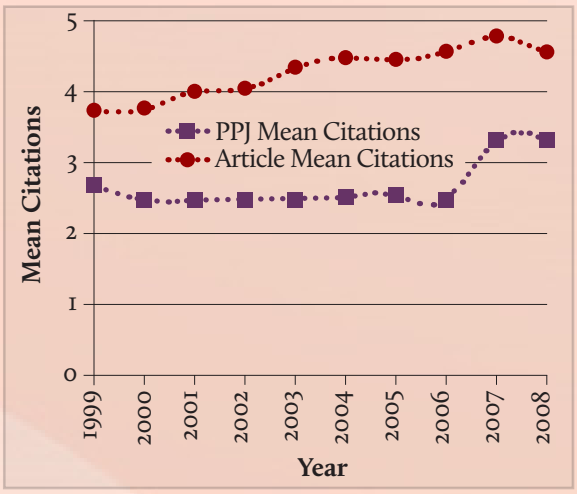

Figure 2. The mean citation of PPJ versus mean citation of non-proceedings articles in the Web of Science

provements based on the feedback from conference attendees, etc. Prior to publication in a journal, the contribution has often been propagated to a certain public audience in the field. The question then arises of whether these advantages would make PPJ attracting more citations than regular journal publications.

Table 1 lists the mean citation rates of PPJ and "regular" articles. The fields were ranked according to the value in the last column (mean citation of PPJ versus mean citation of articles). The first striking phenomenon concerns the field (Computer science, information technology); in contrast to its large PPJ share, it has the lowest relative ci-

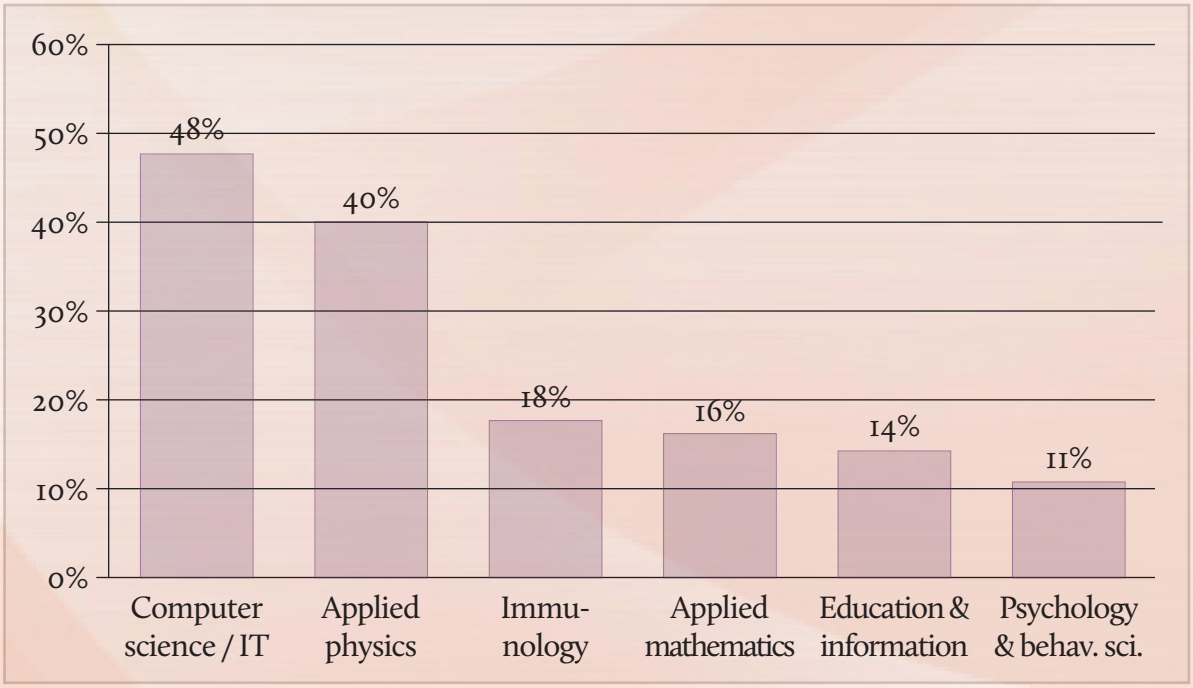

Figure 3. Share of PPJ in all research articles in different fields (1999-2008)

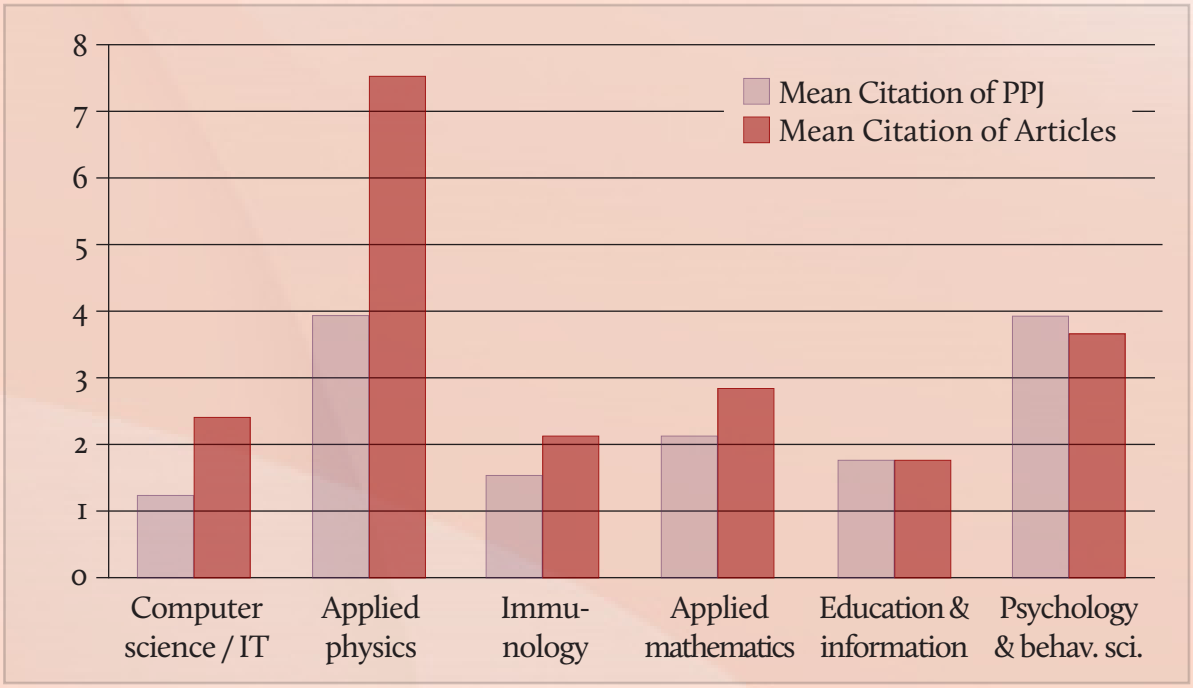

Figure 4. Comparison of citation impact of PPJ and articles in different fields (1999-2008)

tation impact of the PPJ. Furthermore, the two fields with a relatively higher citation impact of PPJ (Education & information and Psychology & behavioural sciences), are those with lowest share of PPJ publications (see Figure 3). However, we mention that there is only a weak advantage of the citation impact of PPJ compared to "regular" articles in the last two fields. The other striking phenomenon is the rather high citation rate of PPJ in Psychology & behavioural sciences, which is even higher than the value in Immunology. A graphical comparison of citation impact of PPJ and the regular journal publications is presented in Figure 4. We may draw the conclusion that the relative citation impact of PPJ is inversely proportional to the PPJ proportion in the different fields (except for Applied physics).

4. CONCLUSIONS

Our results have partially confirmed the finding by Gonzalez-Albo and Bordons (2011); similarly to LIS proceedings papers receive, on an average, less citations than other research articles in other fields, as well. However, we have also found that there is a considerable deviation between different fields. On the other hand, scientific meetings and conference proceedings perform an important task. Conferences are considered to stimulate scholarly communication within a given research topic or discipline through the researchers' presentation and discussion of their research results and the unique form of interactions that is only possible through the simultaneousness of physical face-to-face, or, nowadays, virtual meetings. Personal contact might also raise the immediacy of impact as compared with the often rather anonymous forms of communication. Further research may therefore include the question whether authors of proceeding papers tend to receive faster response and more citations from the conference attendances and their immediate collaborators than from other colleagues in their field.

ACKNOWLEDGEMENT

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