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EDITORIAL

2013 ISSI ELECTIONS
A REPORT ON THE PROCEDURES AND RESULTS

BY BALÁZS SCHLEMMER, ELECTION ASSISTANT

In accordance with the regulations of the Society, its Board is to be re-newed (at least partially) in every second year. In 2013 those who served 4 years as Board Members had to step down and the vacant positions were supposed to be filled up by persons (re-)elected by the members.

PROCEDURES & SCHEDULE

Similarly to earlier years, the 2013 Elections were carried out online and anonymously. Members were informed about the Elections and were invited to nominate/vote in e-mail. E-mails were sent to the e-mail ad-dresses that had been provided by members upon registration or in the course of a later data correction.

Throughout the Elections, data suitable for identification were required only to filter out unauthorized and/or repeated votes. No sensitive data have been forwarded to the Board, to members or to any other third party.

From 1 March 2013 onwards members had 33 days to nominate candidates. Then the candidates had the opportunity to accept or refuse the nominations. Those nominees who did not reply within a nearly 2-week-long time window were considered to be candidates refusing the nomination. From 22 April 2013 onwards the members had 25 days to vote for the candidates who had accepted the nominations.

In line with the Election rules, the fourth Board member position had to be appointed by the old Board, as the members had given the same number of votes to two candidates.

Importance of equal opportunities as well as the principle of balanced representation were emphasized throughout the whole nomination and voting procedures.

As no suspicion of fraud have been detected and/or reported during/after the procedures, the end results of the 2013 ISSI Board Member Elections are considered to be valid and closed.

THE NOMINATION

Each ISSI member had the right to nominate up to 4 board member candidates. Out of the 64 potential nominees 9 candidates have not replied, 41 candidates accepted and 14 candidates refused the nomination.

THE VOTING

As a consequence of refusals and no-replies, 41 candidates qualified for the second turn.

Each ISSI member had the right to vote for up to 4 board member candidates.

41.73% of those having the right to vote cast their ballots. No repeated ballot has been identified, however one of the ballots featured 4 identical votes – 3 of these 4 identical votes were ignored when the results were summed up. Similarly, a whole ballot, which arrived more than 19 hours after the closure of voting, was not taken into account either.

RESULTS

As seen on Figure 1, the newly elected board members are *Cassidy Sugimoto* (USA), *Kevin Boyack* (USA), *Vincent Larivière* (CAN) and *Jacqueline Leta* (BRA). The tie between the latter one and Sybille Hinze (DEU) was eventually resolved the tightest possible way: Jacqueline Leta received only one vote more (4) than Sybille Hinze (3), when the old Board's final voting took place.
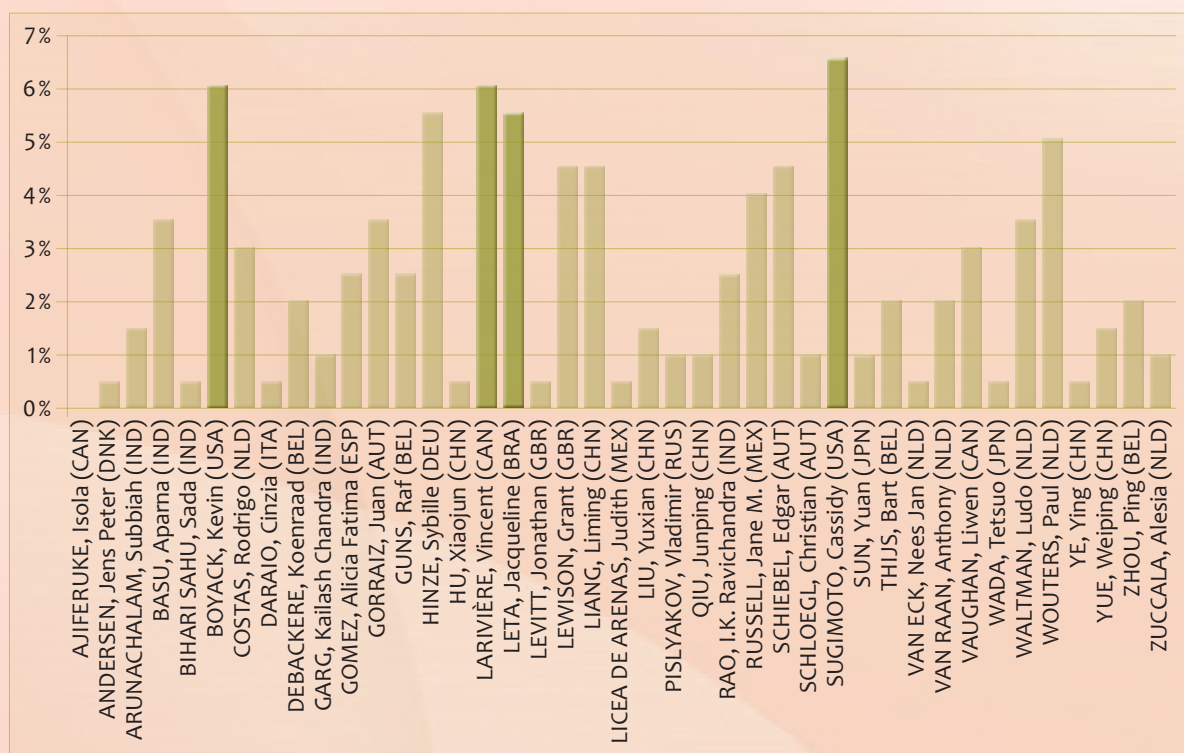
Figure 1 ISSI Board Member Election 2013: distribution of votes. The newly elected board members are highlited.

GUIDELINES FOR BIDDING FOR FORTHCOMING ISSI CONFERENCES

RONALD ROUSSEAU
President ISSI

WOLFGANG GLÄNZEL
Secretary-Treasurer ISSI

In order to facilitate the procedure for bidding to organize forthcoming ISSI conferences, we like to distribute the following guidelines.

1. The main principle of planning and organising conferences is that ISSI does not directly commit the organisation to professional meeting and event organisers.

    1.1. Therefore bids from the "meeting industry" are not considered.

    1.2. ISSI conferences are and will always be organised by organisations with research units active in the field of Scientometrics and Informetrics or closely related fields.

2. ISSI accepts bids from any institution (research institute or university) that has proven its expertise and competence in Scientometrics and Informetrics and that is well-known to the community.

3. Bids have to be submitted to the ISSI Board, particularly to the President and the Secretary-Treasurer of the Society. The application can be made in written form, whether by mail or electronically. The bid, which must be signed by a representative of the unit or institution, should introduce the applicant and express its expertise as well as willingness and capability to host an ISSI Conference. There is no template so that structure and organisation of the application letter, which has to be submitted in English, is left to the applicant.

4. Bids should be sent to the Society Board several weeks prior to the following ISSI Conference. The applicant, i.e., at least one but usually not more than two representatives of the organisation in question, is/are invited to attend the ISSI Board meeting at following ISSI Conference.

4.1. The Board expects that the representative(s) are attending the actual conference; no travel, accommodation or other expenses needed for the presence at the Conference and the Board meeting are reimbursed by the Society.

5. When planning the organisation, applicants should keep in mind that bids do not refer to the conference scheduled after the one they are attending, but to the next conference. The ISSI Board decides upon the conference organisation two events ahead. In particular, during the official Board meeting the next conference organiser is confirmed and the organiser of the following conference is selected among the applicants.

5.1. The applicant should prepare a presentation in which the professional profile of the organisation launching the bid (including its expertise in relevant fields), the venue and time of the planned conference is described. The presentation should also refer to infrastructural and logistic aspects, and provide a description of expected costs and financing including expected sponsorship and the time schedule of conference preparation and communication with the community.

5.2. The application should be aware that also other bids might have been submitted and several presentations will be delivered at the Board meeting. Therefore, presentations should be rather brief and focus on the above-mentioned issues. General issues related to the history of the country/region/city hosting the conference should be restricted to the absolute minimum and only be mentioned if this is relevant to the conference organisation, e.g., in the context of social events. General manifests concerning national economy and policy as well as commercial statements should be strictly avoided.

6. The Board will make a decision during its meeting.

6.1. The Board will make its decision on the basis of several criteria, among which the most important ones are feasibility of the conference organisation, realistic budgeting, reasonable costs for the participants, expertise and capability of the applicant. In the case of several bids of similar quality from different world regions the bid submitted by the institution is favoured that is located in a continent different from that, which is to host the preceding conference.

6.2. In the case of a positive decision, conference organisation will be confirmed at the following meeting. This allows the applicant to timely abandon the bid in case of unexpected events. However, this case should remain an exception to the rule.

6.3. If the case of a rejection, the applicant has the right to launch a new bid at a later time.

We sincerely hope the above guidelines will encourage and assist potential applicants to submit a bid for hosting future ISSI Conferences.

INTRODUCING EHSAN MOHAMMADI

AWARDEE (2013) OF THE EUGENE GARFIELD DOCTORAL DISSERTATION SCHOLARSHIP

TITLE OF DISSERTATION

Identifying the invisible impact of scholarly publications: A multi-disciplinary analysis using altmetrics tools

ABSTRACT

Altmetrics is a new movement to find complementary measures for traditional metrics based on scholars' activities on the social web. This thesis aims to identify whether new aspects of the impact of scientific publications can be captured through altmetrics from Faculty of 1000 (F1000), a post-publishing peer review system, and Mendeley, a social reference site.

This project examines whether F1000 is able to identify non-standard research impacts of medical papers.

Another objective is to investigate Mendeley as a global usage data source for hard and soft sciences disciplines from different points of view in large-scale studies.

First, do Mendeley readership counts measure new aspects of research impact in comparison to citation analysis?

Second, can Mendeley usage data be used as a novel way to discover patterns of information flows between scientific subjects?

The findings show that highlighting key features of medical articles alongside ratings by Faculty members of F1000 could be useful to reveal the otherwise hidden value of some medical papers.

Results for ten social sciences and humanities disciplines indicate that the overall correlations between Mendeley readership counts and citations for the social sciences are higher than for the humanities.

Ehsan has been a member of the Statistical Cybermetrics Research Group at Wolverhampton University as a PhD student under supervision of Professor Mike Thelwall since March 2011. His research focuses on altmetrics, a new movement to develop scholarly communication metrics based on crowdsourcing data from online social media. He also holds a bachelor's and a master's degree, both in library and information science. Ehsan has published several articles in peer reviewed journals and conferences. He was working as a sales manager of electronic information resources for a well-known company before starting his doctoral studies. Ehsan served in different positions in several academic libraries including an online information manager, a reference librarian, and a webmaster. In these roles, he ran more than 150 workshops on using online scholarly information resources for academic librarians and researchers.

Low and medium correlations between Mendeley readership and citation counts in all the investigated disciplines suggest that these measures reflect different aspects of research impact.

Comparing patterns of cross citation and cross readership information flows for the social sciences and humanities suggests that Mendeley readership data may be able to overcome citation delay problems to discover knowledge transfer among scholarly disciplines and also to identify patterns related to broader types of users, at least for social sciences and humanities.

ISSI ANNOUNCEMENT

PROCEEDINGS OF ISSI 2011 CONFERENCE ARE AVAILABLE ONLINE

ISSI is happy to inform its members that the contents of proceedings book of the 13th ISSI conference (organised in 2011 by the Department of Library and Information Science, University of Zululand, Durban, South Africa) has been published on the website of the ISSI: http://www.issi-society.info/proceedings

For the readers' convenience the proceedings book has been splitted up to individual papers. In order to facilitate proper citation, standardized bibliographical descriptions have also been provided accordingly.

The proceedings are freely available for all those ISSI members who have a valid membership status. After successful authentication (with the usual ISSI loginnames and passwords) members can read and/or download the individual files in PDF format.

ASIS&T SIG/MET:
METRICS 2013

WORKSHOP ON INFORMETRIC & SCIENTOMETRIC RESEARCH + STUDENT PAPER CONTEST

NOVEMBER 1, 2013 (9AM – 5PM)
PRECEDING THE ASIS&T ANNUAL MEETING IN MONTREAL, CANADA

SIG/MET will host the third annual Workshop on Informetric and Scientometric Research in conjunction with the ASIST Annual Meeting in Montreal, Canada. The 2011 and 2012 workshops were both well attended, with more than 30 participants at each and representation from a number of different countries. Submissions for the 2013 workshop will be due by August 15, 2013 and should take the form of a two-page structured abstract (with up to three figures/tables). Submissions are peer-reviewed and those of the highest quality are selected for presentation. The workshop is a full day, includes two meals, and contains both presentations and open forums for debate and discussion.

One of the events at the SIG/MET workshop is the awarding of the SIG/MET student paper contest winner. This award is given to an outstanding paper in the field of scientometrics, first- or sole-authored by a student. Submissions are due on July 29, 2013 and should be approximately 6,000 words in length.

For more information on the SIG/MET workshop or student paper contest, please contact Chair of SIG/MET, Cassidy Sugimoto (sugimoto@indiana.edu), or see the SIG/MET website (http://www.asis.org/SIG/SIGMET/).

Photo courtesy of © Michael Vesia.
Source: http://www.flickr.com/photos/vesiaphotography/8246196918/sizes/l/in/pool-338979@N25/

18th NORDIC WORKSHOP ON BIBLIOMETRICS AND RESEARCH POLICY

CALL FOR PAPERS

CALL FOR PAPERS

The participants who wish to present a research paper or a research idea are called for a max 200 word abstract of their presentation. The workshop is also open to participants without a presentation.

Abstracts are asked to be submitted by e-mail (as a PDF attachment) to Staffan Karlsson, stak@kth.se.

DEADLINES

Deadline for submission of abstracts is on 1st September 2013. The authors will be notified of acceptance by 15th September 2013.

LOCATION, DATE, COSTS

- **Location:**
  KTH Royal Institute of Technology, Stockholm, Sweden
- **Date:** October 28-29, 2013
- **Costs of participation, travel and accommodation:** Participation to the workshop is free. Travel and accommodation have to be arranged and sponsored by the participants themselves.

CONTACT

For further information, please contact the coordinators of the workshop:
Peter Sjögårde: sjogarde@kth.se
Staffan Karlsson: stak@kth.se

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INFORMATION ABOUT THE WORKSHOP AND REGISTRATION FORM:

http://www.kth.se/ece/2.36616/2.36618/nordic-workshop-on-bibliometrics-2013/the-18th-nordic-workshop-on-bibliometrics-and-research-policy-2013-1.372953

INTRODUCING THE DEREK DE SOLLA PRICE AWARDEE OF 2013

INTERVIEW BY BALÁZS SCHLEMMER

The awarding ceremony of the Derek de Solla Price Memorial Medal has become an essential part of the programme of ISSI conferences since the foundation of the Society in 1993. The Price Medal was conceived and launched by Tibor Braun, founder and Editor-in-Chief of the international journal Scientometrics, and is periodically awarded by the journal to scientists with outstanding contributions to the fields of quantitative studies of science. This year's awardee is Blaise Cronin (School of Library and Information Science, Indiana University, USA). Congratulations to the award-winner!

■ *"Blaise Cronin was born and raised in Ireland. Trinity College Dublin and the Queen's University of Belfast graciously granted him the degrees necessary to avoid working for a living."* **This strongly sarcastic (self-ironic?) upbeat is the opening part of your introduction as author on the website that sells your book 'Bloomington Days – Town and Gown in Middle America'. It immediately raises a lot of questions. To mention just three of them: 1) what are these magical and lucrative degrees; 2) what were the secrets of these institutions in terms of granting you such an enviable education; and 3) what forced you to choose to work and live in the US after obtaining these "dream degrees" from the old continent?**

BLAISE CRONIN

→ 1) Sadly, I doubt that magic was an inherent property of any of the degrees. At best I was a mediocre student. Maybe it was just the fabled luck of the Irish. For the record, I hold an MA from Trinity College, Dublin, where I read Philosophy, French and German as an undergraduate, and a PhD and DSSc in

Information Science from the Queen's University of Belfast. I also have post-graduate diplomas in both Education and Library & Information Studies, plus an MLS (by research), from Queen's.

2) Well, Trinity, the ancient *alma mater* of Berkeley and Beckett, to name but two, was a special place; self-contained, austerely beautiful, intellectually stimulating and engagingly eccentric. Queen's, though it opened the gate, fortuitously it must be said, to my eventual career path, was a more pragmatic, less socially exotic sort of place. The Ying and Yang of Irish higher education, you might say.

3) I came to the USA in 1991 as Dean of the School of Library & Information Science at Indiana University (now merged with the School of Informatics & Computing) having held the Chair of Information Science and been Head of the Department of Information Science in the Business School at the University of Strathclyde in Glasgow from 1985 to 1991. I was appointed to the professorship at a relatively early age (more Irish luck) and not altogether surprisingly after a few years began to wonder what life would be like elsewhere, so I made the decision to move to the USA, never having lived there but curious to experience a different culture, academic system and language. On a couple of occasions I almost moved back to the UK, but I seem incapable of extricating myself from my Midwestern honey pot despite feeling perpetually deracinated. Having been awarded a named professorship some years ago by Indiana University (yet more Irish luck), it is highly unlikely that I'll be relocating at this stage of my career.

■ **Media news from the late 60s and the 70s were all about the Irish independence movement: confrontations, clashes, riots, bomb attacks, military interventions, killings and counter-killings, Bloody Sunday, Bloody Friday,**

terrorism and retaliation on every corner. From a convenient armchair and from 2013 it seems incomprehensible why a young university student goes from the tranquil Dublin to Belfast, probably one of the least peaceful places on Earth that time. What was it like to live in Belfast then? And first of all, why did you, as an Irish-born citizen, move there under these circumstances?

→ Actually, I was born in Newry, Northern Ireland, a small city located between Dublin and Belfast. I am thus a UK citizen but right now I hold an Irish (as well as a US) passport. For me, Ireland is Ireland, and in saying that I am not making a political but a cultural statement. I lived in central Belfast during the height of the so-called Troubles and saw enough violence, menace and destruction at first hand to last a lifetime. One learned to live by one's wits, in particular by 'reading' faces, accents and the local terrain. The historic hatreds run deep and are never, despite all the economic investment, rhetoric and gentrification, far from the surface. There is a tincture of sadness about the Emerald Isle that its natural beauty can't quite eradicate. By way of a footnote, I was invited back to Newry in 1987 to officially open the new public library. My parents attended the event and I unveiled a brass commemorative plaque, which, I'm pleased to say, is still there.

■ **How and why did you eventually get in touch with scientometrics/informetrics?**

→ In London, in 1980, I remember having a mini epiphany one day at Aslib (the Association for Information Management), where I worked in the Research & Consultancy Division. I can't recall the precise nature of the awakening, but I do know that that is where it really all began, where my interest in the field crystallized. Working at Aslib I was lucky enough to meet people such as John Martyn, Jack Meadows, Eugene

Garfield, and Belver Griffiths, which not surprisingly reinforced my inchoate interest in bibliometrics and scientometrics. Aslib was the springboard for my academic career.

■ **Do you still remember what the main findings of your first publication were? Actually, what was your first publication?**

→ I think the first peer-reviewed article I published in this area appeared in 1981, in the *Journal of Documentation*. It was a conceptual piece about citation theories rather than a report of empirical work. To be honest, I still rather like the opening sentence: *"Metaphorically speaking, citations are frozen footprints on the landscape of scholarly achievement..."* The issues laid out in that paper continue to be be hotly debated within the broader scientometrics community, for understandable reasons. If we really don't know why scholars cite and we are unsure about what citations (and other indicators) signify, then sophisticated mathematical modeling and statistical

analysis count for relatively little at the end of the day. At the risk of sounding like a broken record, validity and reliability issues are pivotal to all we do and remain as vexing as ever.

■ **What do you consider your most important publication or research topic? Not necessarily the one with the highest citation impact but the one which is your personal favourite just because of the complexity and/or beauty of the research.**

→ Over the years (often with colleagues) I have carried out quite a number of studies analyzing the role and significance of acknowledgments in scientific communication. In themselves, acknowledgments may seem quite trivial, but in aggregate what they tell us about patterns of informal collaboration, intellectual trading, norms of reciprocity and the scale of structural interdependence in contemporary science and scholarship is far from trivial. Acknowledgments are, I would argue, the *Ur*-form

of alternative metrics. Unfortunately, I didn't have the imagination to coin the term 'altmetrics' – hats off to Jason Priem for that – but we did, I have to say, quite presciently anticipate the current fascination with alternative indicators – socio-bibliometrics, if you will – in our paper "Invoked on the Web," which was published in *JASIS* in 1998. Looking ahead, I have two co-edited (with Cassidy Sugimoto) books due for publication next year, which will, I hope, spark some interest: *Beyond Bibliometrics* (MIT Press) and *Metrics Under the Microscope* (ASIS&T Monograph Series)

■ **Have you ever had a very surprising research result which was completely against your preliminary expectations?**

→ I have a long-standing interest in collaboration and co-authorship in science and after reading a series of studies and books by David Galenson, a University of Chicago economist with considerable knowledge of art history and art markets, I started to look for evidence of collaboration in painting (and other plastic arts), thinking I might find a few examples, both historical and contemporary. I was surprised by the fact that co-production was and is accepted practice and also by the number of co-authored works in the art world, from the Renaissance to the present day. But that, I suppose, just tells how you ill-informed I was. I published a paper on this in *Information & Culture* in 2012 and may re-visit the topic. Galenson's work also made me think about creativity, chronological age and career lifecycles, which led to a 2007 *JASIST* article (co-authored with Lokman Meho) called "Timelines of creativity," which I personally like, though it's not highly cited. I'm not altogether sure what I expected to find, but I was surprised by the variability in the impact profiles we generated.

■ **Which one do you rather prefer: teaching or research? Do you happen to have a memorable story from the classroom?**

→ No question: research. For 25 years I was a full-time administrator (Dean and Head of Department) so I actually saw relatively little of the classroom. I used as much as possible of my marginal time to read, write and conduct research. Once a year I teach a course entitled "Strategic Intelligence," which, somewhat perversely, is unrelated to my research interests.

■ **How do you think your colleagues and/ or students characterize you? And how do you refine the picture?**

→ Rather like the curate's egg: good in parts, bad in parts. Frankly, I suspect that much of what they'd tell you would be unprintable. In any case, it's too late to refine the picture, too late to change this ageing leopard's spots. I remain, however, implacably opposed to political correctness, the bane of the academy in the United States.

■ **Your qualifications, employments, fellowships, professional experiences, activities, affiliations, memberships, editorial & refereeing duties, major presentations as invited speaker and, of course, your publications were listed on no less than fourty-four pages in your CV in 2012. Beside being the editor-in-chief of the JASIST, travelling a lot as visiting professor and key-note speaker, and beside all the above activities (so much about *"avoiding working for a living"*!) it seems impossible to have time for private life. Still, you somehow managed to write books beyond the professional horizon as well – and something tells me that you push the envelope even further. Can you find time for leisure-time activities and hobbies, too?**

→ When my limbs are in the mood I run, swat tennis balls, ride a bike: squash is

no more. I inherited my father's collecting gene and have been buying art, impulsively and inexpensively, for years. Once upon a time I used to collect wine books; antique corkscrews, even. As long as every evening brings a glass or three of claret, life is worth living. Writing, scholarly, professional and creative, gives me great pleasure and I have self-published a couple of books, one of which, *Stickmen: Reflections on the Goalie's Eccentric Art*, is a paean to the history, lore, mystery and psychology of goalkeeping. In my dreams I am an amalgam of Yashin, Casillas, Buffon and Bonetti. Sometimes my scholarly and professional interests coincide: I am at present working, slowly it must be said, on a book about Western Europe's ancient universities.

■ **5 books, 5 CDs and 5 movies you would take to a desert island...**

→ Who answers the Desert Island Discs question honestly, reliably, I wonder? Anyway, here goes:

Books: William Trevor, *The Collected Stories*; James Joyce, *Ulysses*; J.P. Donleavy, *The Ginger Man*; Patrick Leigh Fermor, *A Time of Gifts;* the *Oxford English Dictionary*.

CDs: Richard Wagner, *Das Rheingold*; The Beach Boys, *Pet Sounds*; Gustav Mahler, *Fifth Symphony*; Wolfgang Amadeus Mozart, *Piano Concerto No. 21*; Miles Davis*, Kind of Blue.*

Movies: Luchino Visconti, *Death in Venice*; Claude Lelouche, *A Man and a Woman*; Francesco Rosi, *Carmen*; Joseph Losey, *Don Giovanni*; Mike Newell, *Four Weddings and a Funeral.*

■ **Could you mention a few of your most memorable conferences (or other job-related) stories?**

→ Most memorable conference? ISSI 2013 in Vienna – if prolepsis is permitted.

Most memorable compliment? I gave a talk on digital pornography at the University of Oxford and was delighted when Ted (Theodor Holm) Nelson, who coined the term 'hypertext', came up and said it was the best presentation he'd ever heard. I suspect, though, that the topic may just have colored his judgment in this instance. (Ted, by the way, also coined the term 'teledildonics'.)

Most memorable professional moment? Receiving a D.Litt *honoris causa* from Queen Margaret University, Edinburgh in the resplendent McEwan Hall in the city center. The formal dinner prior to the ceremony took place in Broomhall House, the stately home of Lord and Lady Elgin, on the walls of which were fragments of the famed Elgin Marbles. A donnish version of Downton Abbey!

■ **What was the most embarrassing situation during your professional career? And the funniest?**

→ I was invited to deliver a named lecture in Australia many years ago and assumed, wrongly, that it was a memorial lecture. I began by referring respectfully to the dead person after whom the lecture was named: Lazarus, unfortunately for me, was sitting in the front row. I was mortified. He was stone-faced.

Other than that, all the usual horror stories from conferences. Power outages, mal-functioning projectors, corrupted PowerPoint slides, temperamental microphones, inept interpreters, and people falling asleep, reading the newspaper or knitting merrily in the front row. On two occasions, in London and Tangiers, a member of the audience walked out shouting in protest at something I had said, which, I suppose, is preferable to being ignored. On others, in Africa and Latin America, I was publicly denounced a neo-colonialist, more I think because of my presumptive nationality than ideological viewpoint.

ARE REGISTERED AUTHORS MORE PRODUCTIVE?*

SARAH HEEFFER
ECOOM & Dept. MSI,
KU Leuven, Belgium

BART THIJS
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Dept. Science Policy &
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ABSTRACT

Author identification, disambiguation assignment to corporate addresses are among the big challenges at the micro and meso level. Identifying systems for scientific authors are supposed to uniquely identify researchers but experience has shown that these IDs are not yet fully implemented and that errors and multiple assignments are not quite the exception to the rule.

In order to study cleanness and representativity of Thomson Reuters' ResearcherID and their implementation in a systematic way we select a set of countries and subject fields and analyse the (i) shares of papers with RID authors and papers with RID authors, (ii) activity of RID authors vs. all authors and (iii) the distribution of activity over science fields.

INTRODUCTION

The identification of authors in bibliographic databases and their assignment to research universities, research institutions or companies is still one of the big challenges in scientometrics at the micro and meso level. Correct author identification is indispensable, above all, in longitudinal studies on scientific careers, studies of researchers' mobility or in monitoring constitution and performance of research teams (Strotman & Zhao, 2012).

Recently the large abstract and citation databases Web of Science (Thomson Reuters) and Scopus (Elsevier) have introduced their ResearcherID and Author ID, respectively. Both are supposed to uniquely identify scientific authors but experience has taught us that these IDs are not yet fully implemented and that errors and multiple assignments are not quite the exception to the rule.

The present study aims at a systematic analysis of the cleanness of ResearcherIDs, their acceptance by authors and their implementation in the mirror of national research output and subject-specific peculiarities as reflected by major science fields. Finally we have analysed in how far ResearcherIDs can be

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* This research note is a slightly extended preprint version of a poster accepted for the 14th International Conference on Scientometrics and Informetrics, 16–18 July 2013, Vienna, Austria.
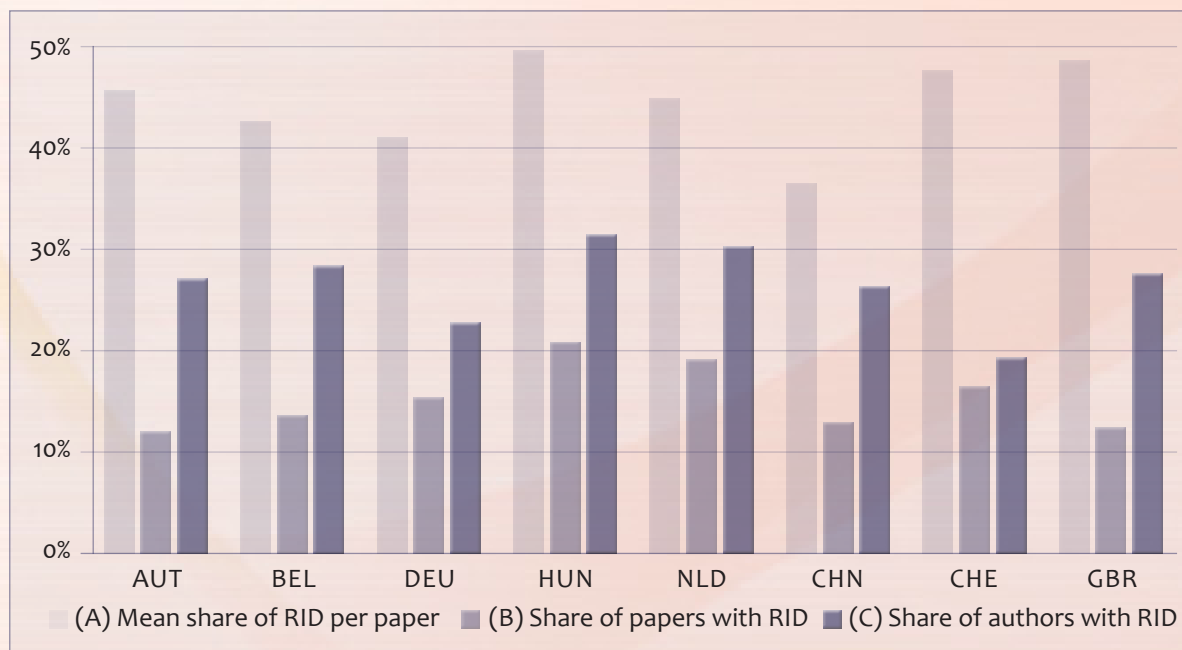
Figure 1. Shares of RID authors and papers with RID authors per country
[Data sourced from Thomson Reuters Web of Knowledge]

used to represent national and field-specific publication-activity patterns. The latter question is important to find reference standards for publication activity such as otherwise only known for citation indicators so far.

DATA SOURCES AND DATA PROCESSING

In order to use a reasonable publication set we have selected seven countries from Europe and one country from Asia. These countries are Austria, Belgium, Germany, Hungary, Netherlands, Switzerland, UK and China. All 'citable' documents with at least one author from these countries and one or more authors with ResearcherID (RID) have been downloaded from the 2009–2011 volumes of the online version of Thomson Reuters *Web of Science* (WoS). It should be stressed that the author with RID needs not necessarily be affiliated with an institution in the countries in question. After download, these papers have been matched with all publications from these countries extracted from the WoS custom-data set licensed at ECOOM. In a following step all RIDs have been uniquely assigned to countries on the basis of Thomson Reuters' affiliation tag. RID's from foreign countries

have been removed from the national sets. All authors without RID have also been assigned to countries and – as far as possible – disambiguated on the basis of name and first initial and affiliation. After the cleaning process a certain amount of homonyms and synonyms still remains in the data set as well as some uncertainty about the authors' consequent and correct mention of their identifiers. All papers have been assigned to major fields on the basis of the Leuven-Budapest classification scheme (Glänzel and Schubert, 2003). Papers can be assigned to more than one field or country due to journal assignment and co-authorship, respectively.

METHODS AND RESULTS

Researcher names associated with RIDs were matched with author names as they appear on the paper. This allowed us to identify some problems. First, RIDs are not only used by authors. Some institutes and author groups mark their publications by an RID. Second, RIDs claim several papers while the researcher name does not match any of the authors. Third, an RID is not always unique. Some authors have created and are using different RIDs to claim the same papers with these dif-

ferent RIDs. The overwhelming share (92%) of RIDs, however, seems to be created by individuals and used in a correct manner.

Figure 1 displays the mean shares of authors with RID (A) and the share of papers (B) respectively authors (C) with an RID. On an average, 40%–50% of authors of a paper have an RID registration. In China we have found the lowest share, while Hungary and the UK have the highest one around 50%. National shares of papers with RID authors is much lower; it ranges between 12% and 21%. Here Hungary and the Netherlands are at the high end and the UK has jointly with Austria the lowest share. Similarly, Hungary and the Netherlands have the highest shares of registered authors but unlike the previous statistic, Germany and Switzerland form the low end here. Roughly one quarter to one third of all authors from the country selection use an RID registration. These effects are not the result of foreign collaboration since co-authors from other countries have been removed from the statistics.

The comparison of publication activity shown in Figure 2 reveals other aspects of national patterns of RID use. The mean activity of all authors is certainly distorted by insufficient name disambiguation. Although the national statistics for all authors reflect similar activity for most countries

FIELD*	A	C	FIELD*	A	C
A	2.17	3.05	M	3.11	4.40
B	2.40	3.01	N	2.51	3.84
C	3.12	4.76	O	1.74	2.25
E	2.14	2.37	P	4.96	4.85
G	3.58	4.10	R	1.97	2.28
H	1.89	1.90	S	1.67	2.15
I	2.98	3.53	Z	2.48	3.53

Table 1. Mean publication activity of all authors (A) vs. RID authors (C) per major field [Data sourced from Thomson Reuters Web of Knowledge]

** Legend: **A**: agriculture & environment; **B**: biosciences (general, cellular & subcellular biology; genetics); **C**: chemistry; **E**: engineering; **G**: geosciences & space sciences; **H**: mathematics, **I**: clinical and experimental medicine I (general & internal medicine); **M**: clinical and experimental medicine II (non-internal medicine specialties); **N**: neuroscience & behavior; **O**: social sciences II (economical & political issues), **P**: physics; **R**: biomedical research; **S**: social sciences I (general, regional & community issues), **Z**: biology (organismic & supraorganismic level)*

(ranging from 4 to 5), China's extreme average activity points to identification issues.

The activity of authors using RID (cf. column B in Figure 2) is distinctly higher than the activity of all authors (except for China). However, China has still the highest activity, followed by the Netherlands, Austria and Germany. Of course, these values can be influenced by national publication profiles, therefore we have a look at subject-specific peculiarities of activity patterns before we
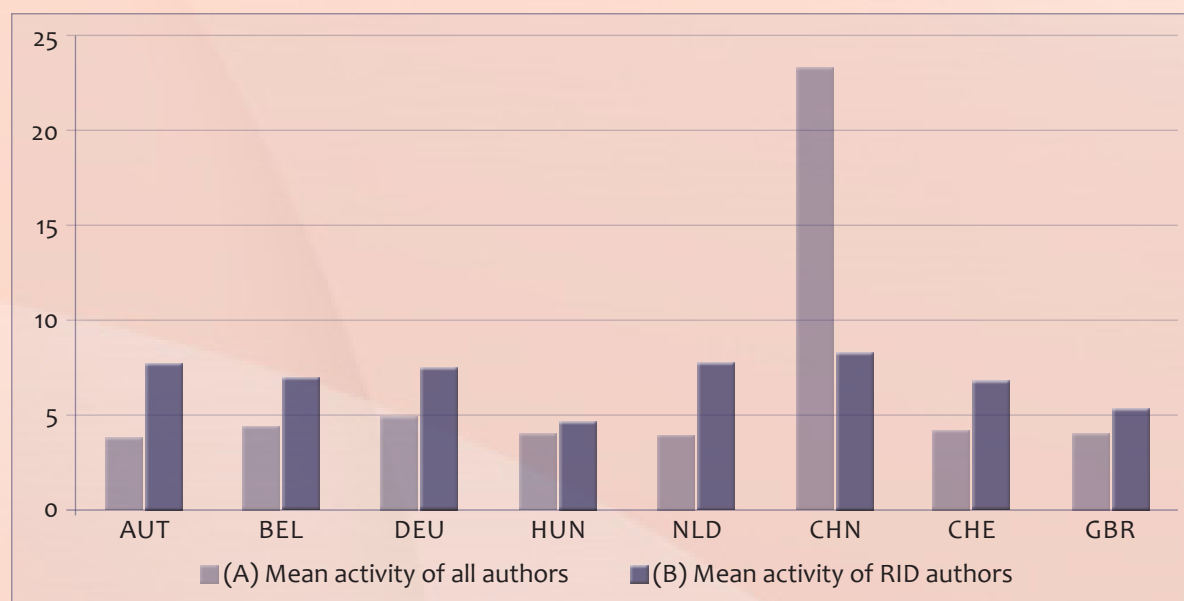

Figure 2. Mean publication activity of RID authors vs. authors in RID papers and all authors per country [Data sourced from Thomson Reuters Web of Knowledge]
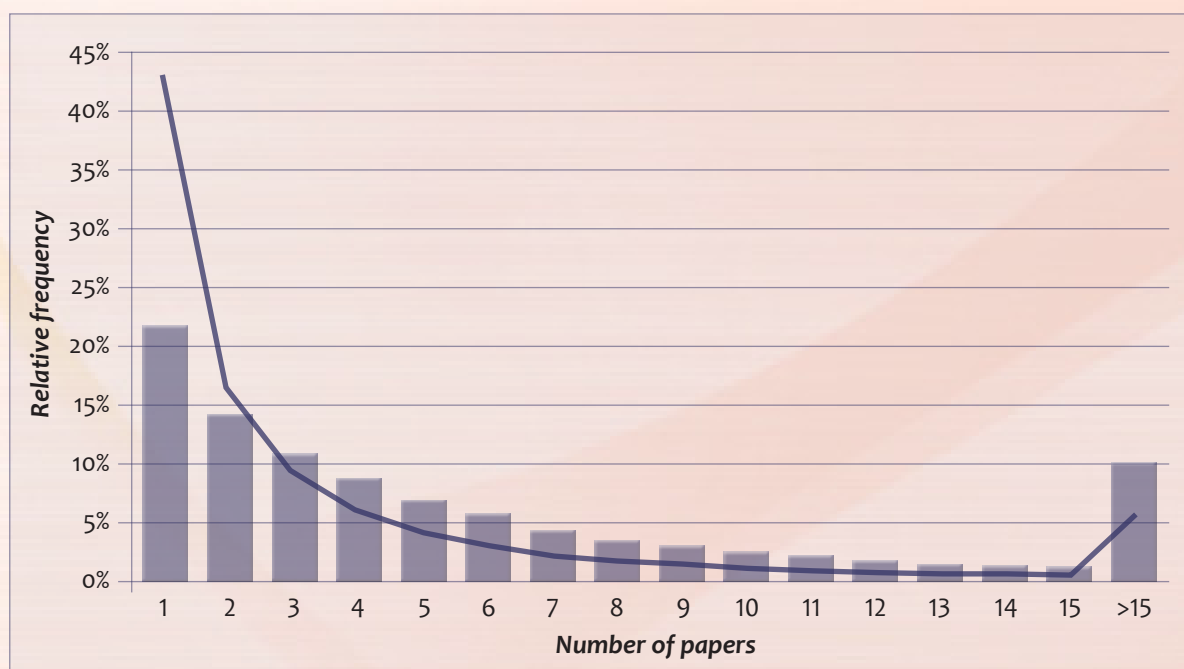
Figure 3. Relative frequency of publication activity of RID authors (bars) vs. all authors (line). [Data sourced from Thomson Reuters Web of Knowledge]

have a closer look at the distribution of papers over authors using or not using RID. Because of the bias in the Chinese data, we have removed China in the following analysis.

Table 1 shows the mean activity (all authors vs. RID) for 12 major fields in the sciences and two fields in the social sciences. Again, the mean publication activity of RID authors generally exceeds that of the reference standard based on all authors. Physics forms the only exception. Also subject-specific peculiarities can be observed: mathematics and the social sciences have the lowest standards, followed by biomedical research and engineering. The deviation of the values presented in Table 1 from those in Figure 2 are caused by the 'multidisciplinarity' of authors: RID authors are active in 2.5 fields on an average, while all authors in about 2.2 fields.

The mean activity of all authors in all fields combined amounts to 4.71, that of RID authors 6.87. Similarly, the corresponding share of authors with one paper amounts to 43.1% and 21.7%, respectively. Furthermore, RID authors are more productive at the high end of the distribution. The distribution is plotted in Figure 3. It goes without saying that the two distributions are distinctly different and it needs no further significance test.

CONCLUSIONS

The results show that ResearcherIDs reduce the problems of name disambiguation. For some languages or common names, more external information is essential to be able to identify the authors name. The extent of RID registration is, however, still low and differs among countries. We also found that authors with RID are usually more productive than others. RID might therefore not (yet) be used to derive reference standards for publication activity.

Finally, we have to mention that the lack of supervision over the ResearcherID registration makes the authors themselves responsible for RID validity.

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THE STANDARD SYNCHRONOUS IMPACT FACTOR VERSUS THE DIACHRONOUS ONE

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ABSTRACT
It is shown that the same articles can have a higher average number of citations when compared with their journal's diachronous impact factor and a lower one when compared with their journal's synchronous impact.

KEYWORDS: synchronous impact factor; diachronous impact factor; contradiction

INTRODUCTION: IMPACT FACTORS

Several times in the past I have stated during talks, courses and in writing, that diachronous journal impact factors are 'better' than synchronous ones. Yet, I have never provided a concrete illustration, nor can I remember having seen one. The aim of this short contribution is to provide such an illustration. First I recall the definition of the two types of impact factors (Ingwersen et al., 2001; Glänzel, 2004).

As I did in earlier publications I use a publication-citation matrix to illustrate the difference between a synchronous and a diachronous approach. Consider Table 1: it contains the annual numbers of published articles and citations for a – hypothetical – journal, over the period 2007 - 2011 (citations come of course from the set of journals in the pool under con-

sikeration). The first row in Table 1 refers to publications years. The second one gives the yearly number of published articles. I do not go into the discussion of the definition of a 'citable' article and just assume, for simplicity, that all articles are 'citable'. The other rows are citation rows. One sees that, e.g. in the year 2009 this journal received 85 citations to articles it published in the year 2008. That same year it received 45 citations to articles it published in the year 2009.

YEAR	2007	2008	2009	2010	2011
# published articles	55	50	56	60	62
Citations received in 2007	45				
Citations received in 2008	60	40			
Citations received in 2009	131	85	45		
Citations received in 2010	150	70	102	40	
Citations received in 2011	120	66	103	75	45

Table 1: A publication-citation matrix for a hypothetical journal J

Impact factors, i.e. mean citedness, can be calculated using either a synchronous or a diachronous approach, and with different time windows for publication and citation data. The ISI or Garfield impact factor (Garfield & Sher, 1963) for the year 2010 (based on Table 1) is:

$$IF_2(2010) = \frac{70+102}{50+56} \approx 1.623$$

The symbol used to denote the impact factor (IF) has a subscript 2 as it is calculated using a two-year publication window. IF_2 is a synchronous impact factor involving a single citation year and two publication years. The term 'synchronous' refers to the fact that citations used for its calculation were all received in the same year. In other words, they are obtained from reference lists of articles published in the same year, 2010 in this example. Similarly, a 3-year,

5-year and generally an n-year synchronous impact factor can be defined (Rousseau, 1988). The n-year synchronous impact factor of journal J in the year Y, denoted as $IF_n(J,Y)$ is defined as:

$$IF_n(J,Y) = \frac{\sum_{j=1}^{n} CIT_J(Y,Y-j)}{\sum_{k=1}^{n} PUB_J(Y-k)}$$

In this formula the number of citations received (by journal J, from all members of the pool) in the year Y, by articles published in journal J in the year X is denoted by $CIT_J(Y,X)$. Similarly, $PUB_J(Z)$ denotes the number of articles published by this same journal in the year Z. Citation data for a synchronous impact factor will always be found in the same row of the publication-citation matrix. Indeed the data in a certain citation row in such a table correspond to the data that can be obtained from the Journal Citation Reports (JCR) when considering the journal in the 'Cited Journal' view.

Next, I introduce the diachronous impact factor, denoted by IMP (Ingwersen et al., 2001; Glänzel, 2004). The 2009 two-year diachronous impact factor for the journal represented in Table 1 is:

$$IMP_2(2009) = \frac{102+103}{56} \approx 3.661$$

or, if the publication year is included:

$$IMP_2^{(0)}(2009) = \frac{45+102}{56} = 2.625$$

In general, the n-year diachronous impact factor of a journal J for the year Y is:

$$IMP_n(J,Y) = \frac{\sum_{j=0}^{n-1} CIT(Y+j+k,Y)}{PUB(Y)}$$

where k = 0 or 1, depending on whether the year of publication is included or not. Citation data for the diachronous impact factor are always found in the same column of the publication-citation matrix. Therefore in order to collect data for calculations of the diachronous impact fac-

tors several volumes of JCR or Scimago files are needed. The term 'diachronous' refers to the fact that the data used in its calculation derive from a number of different years with a starting point somewhere in the past and encompassing subsequent years.

WHY SHOULD A DIACHRONOUS – AND NOT A SYNCHRONOUS - IMPACT FACTOR BE USED FOR RESEARCH EVALUATIONS?

Consider the following question. In the year 2008 you published two articles in journal J (Table 1). These two articles received the following numbers of citations (see Tables 2 and 3) during the following years. Did you do 'better' than the average article in journal J? For this you compare with the synchronous two-year impact factor and with the two-year diachronous impact factor (not including the publication year) and also with the three-year diachronous impact factor (including the publication year).

YEAR	2008	2009	2010	2011	2012
Received citations	1	2	1	0	0

Table 2. Citations received by article 1

YEAR	2008	2009	2010	2011	2012
Received citations	0	2	2	3	4

Table 3. Citations received by article 2

Let us first consider the diachronous impact factor.

$$IMP_3(J, 2008) = (40+85+70)/50 = 3.9$$

$$IMP_2^{(0)}(J, 2008) = (85+70)/50 = 3.1$$

These values must be compared with (4+4)/2 = 4 and (3+4)/2 = 3.5. Clearly, which-

ever diachronous impact one uses you did better (in terms of received citations) than the average article in this journal.

Next I consider the synchronous impact factor. An article published in 2008 contributes to IF(J,2009) and to IF(J,2010). Hence I calculate these two impact factors: $IF_2(J,2009) = (131+85)/(55+50) \approx 2.057$, while $IF_2(J,2010) = (70+102)/(50+56) \approx 1.623$. For the impact factor of the year 2009 you contribute with two articles which received each 2 citations, hence 2 citations on average. This must be compared with 2.057. Hence you did (slightly) worse than the average article in journal J. For the impact factor of the year 2010 you again contribute with two articles which received 1 and 2 citations, hence 1.5 citations on average. This must be compared with 1.623. Again you did worse than the average article in journal J. This shows that comparing the same articles with the average article in the same journal once in a diachronous way and once in a synchronous way, may lead to contradictory results.

In (Ingwersen et al., 2001) we discussed the reasons why it is better to use a diachronous impact for evaluation purposes, see also (Glänzel, 2004). When evaluating persons, research groups or institutes they must be treated in a fair way. One point here is that like should be compared with like. When using the synchronous impact factor the articles used in its calculation consist of all those published during the previous two years in a particular journal. Consequently, one of these two years is not the publication year of the target article (i.e. the article of the researcher or group of researchers being evaluated), and journal content may change considerably from year to year. A case in point is when one year the journal publishes articles presented at a conference and the next it publishes several special theme issues. In contrast, the diachronous impact factor always makes comparisons with articles published in the same year as the target article (Ingwersen et al., 2001).

SOME FINAL REMARKS

Although when considering all available data, article 2 is clearly the most influential of the two, articles 1 and 2 contribute in a comparable way in these comparisons. This illustrates the well-known difference between short term and long term visibility.

Another point, not related to this specific example, is the fact that using a synchronous impact factor only journals (or serials in general) can be evaluated. Diachronous impact factors, on the other hand, can also be calculated for one-off publications, such as edited books containing contributions of different authors, or conference proceedings as e.g. done in (Rousseau, 1997) for the first and second international conference on bibliometrics, scientometrics and informetrics. Moreover, it is even possible to calculate diachronous impact factors for journal volumes, issues or even subsections of an issue. As far as I know this has not been done yet. Hence I suggest studying time series of diachronous impact factors per journal issue. For more comments on the use of impact factors I refer again to (Ingwersen et al., 2001; Glänzel, 2004) and the discussion on the impact factor in (Scientometrics, 2012).

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