

# GENERAL CONTRIBUTIONS

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## Report

### 12<sup>th</sup> International Conference on Scientometrics and Informetrics – Brazil

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#### Introduction

That society benefits from domestic and international science is undisputed – scientific development not only feeds improvements in health care, agriculture and higher education, but also raises public awareness and spurs technological developments and innovations, thereby encouraging sustainable production and economic competitiveness. But how can we monitor and gauge this complex process towards attaining a better quality of life and help bridge the divide between developing and developed countries? This calls for a bird's-eye view of science, a view based on a wide range of measurements of science, using as many indicators and reliable sources of information as possible. National governments, like that of South Africa, as well as intergovernmental agencies such as UNESCO and WHO, routinely collect comparative statistical information about how well countries are performing in science. The qualitative and quantitative evaluation of scientific production is also a common need in the entire research world in order to measure the rise and fall of research outputs (Jacobs, 2006). Most of the time, statistics relate to 'inputs', especially expenditures and human resources. There are still very few comprehensive information sources and reliable statistics dealing with research outputs and impacts on society. Essentially, "metrics" such as Informetrics, bibliometrics scientometrics and webometrics all deal with indicators based on the output of scientific publications (Tijssen, 2005). All these terms are inter-related and at times quite confusing (Ocholla, 2007). The term "informetrics" (*informetrie*) was coined by Nacke (1979) and is the study of quantitative aspects of information (Tague-Sutcliffe, 1992). This includes the production, dissemination and use of all forms of information, regardless of its form or origin. As such, informetrics encompasses the fields of scientometrics, which studies quantitative aspects of science; webometrics, which looks into quantitative aspects of the World Wide Web; and bibliometrics, which deals with the quantitative aspects of recorded information.

#### ISSI 2009

ISSI 2009 was organized by the International Society for Informetrics and Scientometrics. Previous ISSI conferences took place in Belgium (1987), Canada (1989), India (1991), Germany (1993), USA (1995), Israel (1997), Mexico (1999), Australia (2001), China (2003), Sweden (2005) and Spain (2007), Brazil (2009).

#### The Venue

The National University of Brazil in Rio de Janeiro, set against the backdrop of the imposing *Sugar Loaf* mountain and *Christ the Redeemer* at the far end of the city, was the perfect setting for ISSI 2009. The sparkling beaches and hospitable people of Rio added charm to the conference.

#### Target audience

ISSI 2009 targeted a broad multidisciplinary audience that included researchers, policy-makers, educators, librarians, information science professionals, and students interested in the dynamics of research productivity, scholarly communication networks, and information retrieval and evaluation.

The objective of the ISSI 2009 conference was to bring together scientists, research managers and authorities, as well as information and communication-related professionals, in an open international forum to discuss advancements in scientometrics and applications in the field, and to shape future research directions through the publication of high quality, applied and theoretical research findings. The conference also functioned as a key contributor to the socialization of scientometrics in the Latin American and Caribbean scientific community.

#### Areas of Interest

Topics of interest included, but were not limited to general works on informetrics (e.g. structure of the field, history), theory (e.g. laws, theories related to time and growth), informetric laws, distributions and concentration, methods and techniques, citation analysis indicators, webometrics, journal analysis, open access and electronic publications, productivity and publications, collaboration, research policy, patent analysis, etc.

### Background information on the International Society for Scientometrics and Informetrics, ISSI

The society was founded at the International Conference on Bibliometrics, Informetrics and Scientometrics held in Berlin from the 11<sup>th</sup> to the 15<sup>th</sup> of September in 1993. This conference was the fourth of a series of prominent biennial conferences that have since been held under the auspices of the society. The society was incorporated with formal Articles of Association (Notes: check – unclear use of ‘incorporated with’) in 1994 in the Netherlands (Utrecht).

The International Society for Informetrics and Scientometrics, ISSI, is an association of professionals active in the emerging interdisciplinary fields of informetrics, bibliometrics/scientometrics, technometrics and webometrics. Its membership includes scientists from over 30 countries representing all five continents.

### Office Bearers of ISSI

The first President of ISSI was Hildrun Kretschmer (Germany), voted in by members of the conference audience in Berlin, 1993. In 1995, following the ISSI conference in Chicago, Michael E.D. Koenig (USA) took over the presidency for a period of two years. The next two years saw Bluma Peritz (Israel) as ISSI president, followed by César Macías-Chapula (Mexico) for the years 1999-2001, and Mari Davis (Australia) for 2001-2003. In 2002, the ISSI Board reviewed its policies relating to the election of ISSI Board positions. In 2003, the first open vote for the president and the board was conducted electronically with all the society’s members. Henry Small (USA) was elected the 6th president. The current president is Prof Ronald Rousseau of Belgium.

### Conference Organizers

Of the four conference chairs, three were from Brazil, namely Abel L Parker (BIREME/PAHO/WHO), Jacqueline Leta (Universidade Federal do Rio de Janeiro, Brazil), and Rogério Meneghini (BIREME/PAHO/WHO). The fourth (external) chair was Ronald Rousseau (KHBO) from Belgium, who is also the current president of ISSI. Jacqueline Leta and Birger Larsen (Royal School of Library & Information Science, Denmark) were the program chairs. The regional program chairs were: Africa – Dennis Ocholla (University of Zululand, South Africa); Australia/Oceania – Mari Davis (University of New South Wales); China/East Asia – Liming Liang (Henan Normal University, China); Europe – Wolfgang Glänzel (Katholieke Universiteit Leuven, Belgium); India/Middle East – Aparna Basu (University of Delhi, India); Latin America – Manuel Krauskopf (Universidad Nacional Andrés Bello, Chile); and North America – Katy Börner (Indiana University, USA).

**Table I** Participants according to countries

Country	No	Country	No
Argentina	2	Japan	3
Austria	4	Korea	1
Belgium	8	Mexico	4
Brazil	69	Netherlands	11
Canada	6	New Zealand	1
Chile	9	Norway	2
China	16	Peru	2
Columbia	8	Portugal	4
Cuba	1	Russian Federation	1
Czech Republic	2	Slovenia	1
Denmark	4	South Africa	4
Finland	3	Spain	10
France	4	Sweden	7
Germany	9	Switzerland	1
Hungary	1	Turkey	3
India	2	United Kingdom	5
Iran	2	United States	15
Israel	1	Uruguay	1
Italy	1		
<b>Total</b>			<b>230</b>

### Keynote Addresses

The first keynote address was delivered by Professor Judit Bar-Ilan from Bar-Ilan University, Israel, on “A Closer Look at the Sources of Information Research”. She elucidated the various sources of information research with great mastery and insight.

The second keynote address was delivered by Mr Gunner Sivertsen from the Norwegian Institute for Studies in Innovation Research and Education, Norway, on "A Bibliometric Funding Model Based on the National Research Information System". His insights opened up new windows to policy makers and funding agencies.

### The Conference Programme

Topics included in the conference are listed below. Any related or innovating subjects could have been accepted for presentation.

GENERAL WORKS ON INFORMETRICS (Structure of the Field and Relations to Other Fields, History of Bibliometrics, Analysis of Acknowledgements)

- THEORY (Informetric Laws, Distributions and Concentration, Time and Growth, Other works on Theory)
- METHODS AND TECHNIQUES (Mapping and Visualization, Text and Data Mining and other Linguistic Techniques, Network Analysis, Classification, Other Methods)
- CITATION ANALYSIS (Characterizing Publications and Fields, Theoretical and Methodological Aspects, Self-citation, Ego-centred Citation Studies, Quality Assessment, Errors in Citation Analysis, Other Citation Analysis)
- INDICATORS (h-Index, Impact Factors, Other Bibliometric Indicators)
- WEBOMETRICS (Web Impact Factors, Measures and Methodological Issues, The 'Academic' Web, Commercial Sites, Linking Motivations and/or Content Analysis, Journals and Web Citations)
- JOURNALS (The 'Impact Factor' Debate, Journal Quality, Journal Coverage and Structure, Journal Profiles, Non-English Journals and Internationalization, Journal Editors and Editorial Boards)
- OPEN ACCESS AND ELECTRONIC PUBLICATIONS (Studies on Open Access and/or Electronic Publications, Debate on Open Access and/or Electronic Publications)
- PRODUCTIVITY AND PUBLICATIONS (Country Level Studies, Field Specific Studies, Media Coverage of Science, Gender and/or Other Sociological Issues, Other Studies on Productivity)
- COLLABORATION (Studies in Specific Fields; Studies on National, Group or Author Level)
- RESEARCH POLICY (Research Evaluation, University Rankings, Scientometrics Indicators in S&T Policy, Other Studies and/or Debates on Research Policy)
- PATENT ANALYSIS (Patent Citations and Science and Technology Links, Other Patent Indicators)
- BIBLIOGRAPHIC DATABASES (Comparisons between Databases, Coverage, Retrieval Techniques and Data Isolation)

### Total number of papers

A total number of 254 submissions were made; 118 were full papers, 52 research-in-progress papers, and 84, posters. After a thorough review process by the International Scientific Programme Committee, some 83 submissions were rejected and 9 were withdrawn by the authors. The final 98 papers were considered good for presentation and 64 posters were accepted for display.

### Oral presentations

ISSI 2009 provided a platform for oral presentations, satellite workshops and a doctoral forum. The conference was a manifestation of international scientific cooperation with participants from 37 countries representing diverse cultures from around the world. During the four days, 98 oral presentations were made under the following sections:

Citation Analysis	-10	Field Specific Studies	-5
Indicators	-5	Methods & Techniques	-6
Webometrics	-10	Mapping and Visualization	-7
Research policy	-5	Productivity & Publications	-9
Country Level Studies	-8	Field Specific Studies	-9
Journals	-6	Patent Analysis	-5
Electronic Publications	-5	Collaboration	-4
Research Evaluation	-4		

The oral presentations and keynote addresses provided the participants with an opportunity to address and share ideas and information on the evolution and state of the art of worldwide research in informetrics and scientometrics.

Two oral presentations came from South Africa. The first paper was by Daisy Jacobs (University of Zululand) and Stephen Mutula (University of Botswana) entitled "Public Health Research in Selected African Countries: A Bibliometric Analysis of the Literature". The second paper was by Dennis Ocholla (University of Zululand) and Bosire Onyancha

(University of South Africa) entitled "Conceptualizing Knowledge Management in the Context of Library and Information Science using the Core/Periphery Model". Both papers were received with great interest from the delegates.

### Poster presentations

56 poster presentations were made covering most of the fields mentioned under oral presentations, in particular scientific collaboration, scientific production, journal impact factor, research capacity building programmes, scientific communication and ontology, and co-authorship patterns, to name a few. A poster was presented by Dennis Ocholla, Bosire Onyancha and Lyudmila Ocholla entitled "Insight into Collaboration in Global Warming Research in Africa, 1990-2008: An Informetric Analysis".

### Workshops

ISSI 2009 presented three workshops:

#### 1. Tracking and Evaluating Interdisciplinary Research: Metrics and Maps

The aim of this workshop was:

- a) To contrast perspectives on how to measure and map in terms of knowledge integration, network analysis, and disciplinary diversity.
- b) To examine varied approaches and map the relative position of bodies of research.
- c) To assess the benefits and downsides of interdisciplinary research.

#### 2. Visualizing and Analyzing Scientific Literature with CiteSpace

This workshop introduced the latest developments in CiteSpace and demonstrated its use in a variety of case studies. It provided an interactive forum for researchers and educators to share their experiences and needs in understanding and analyzing scientific literature using CiteSpace.

#### 3. Using Maps of Science to Teach Science

This workshop aimed to promote discussion on the use of science maps in the education process. The focus was on the needs of a researcher who wants to use *Map of Science* to teach graduate students an area of research.

#### Doctoral Forum

The doctoral forum provided doctoral students with an opportunity to present and discuss their research projects with senior researchers and receive feedback. It also created an opportunity for students to network with fellow students and researchers from around the world.

### ISSI 2011 in South Africa

The next ISSI conference is to be hosted on African soil by the Department of Information Studies, University of Zululand. All four South African representatives felt immensely proud when the organizers announced that we were going to be the next conference hosts. Several developing and developed countries had vied with each other for the same opportunity. Both Professor Ocholla and Dr Jacobs had put in a request at the 2005 ISSI conference in Sweden and were invited to attend that year's ISSI Board meeting. There they had to explain why they thought we should host the (2009) conference. The board members were impressed at the time, and willing to consider the request. In 2007, Professor Ocholla, Madrid Spain, formally bid for the conference and finally in 2009, the board awarded us the opportunity to host the 13<sup>th</sup> ISSI conference. All the delegates were thrilled with South Africa as the next venue. The country's modern infrastructure and natural beauty, together with our Big Five, impressed the two hundred plus audience.

A lot has already been done in terms of showcasing to the ISSI delegates, officials and organizers what they can expect in the next conference in 2011. Welcome to 13<sup>th</sup> ISSI Conference in Durban, South Africa.

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