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CONTENTS

BIR 2019:

8th INTERNATIONAL WORKSHOP ON BIBLIOMETRIC-ENHANCED INFORMATION RETRIEVAL

14 APRIL 2019, COLOGNE, GERMANY

CALL FOR PAPERS

The Bibliometric-enhanced Information Retrieval (BIR) workshop series at ECIR tackles issues related to academic search, at the crossroads between Information Retrieval and Bibliometrics. BIR is a hot topic investigated by both academia (e.g., ArnetMiner, CiteSeerX, DocEar)

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Contributors to the newsletter should contact the editorial board by e-mail.

and the industry (e.g., Google Scholar, Microsoft Academic Search, Semantic Scholar). A one-day workshop is to be held at ECIR 2019 in Cologne, Germany.

Past BIR proceedings are online https://dblp.org/search?q=BIR.ECIR as open access.

KEYWORDS

Academic Search, Information Retrieval, Digital Libraries, Bibliometrics, Scientometrics

WORKSHOP TOPICS

We welcome submissions regarding all three aspects of the search/recommendation process:

- User needs and behaviour regarding scientific information, such as:
  - Finding relevant papers/authors for a literature review.
  - Measuring the degree of plagiarism in a paper.
  - Identifying expert reviewers for a given submission.
  - Flagging predatory conferences and journals.
- The characteristics of scientific information, such as:
  - Measuring the reliability of bibliographic libraries.
  - Spotting research trends and research fronts.
- Academic search/recommendation systems, such as:
  - Modelling the multifaceted nature of scientific information.
  - Building test collections for reproducible BIR.
  - System support for literature search and recommendation.

We especially invite descriptions of running projects and ongoing work as well as contributions from industry. Papers that investigate multiple themes directly are especially welcome.

AIM OF THE WORKSHOP

Searching for scientific information is a long-lived information need. In the early 1960s, Salton (1963) was already striving to enhance information retrieval by including clues inferred from bibliographic citations. The development of citation indexes pioneered by Garfield (1955) proved determinant for such a research endeavour at the crossroads between the nascent fields of Information Retrieval (IR) and Bibliometrics [Bibliometrics refers to the statistical analysis of the academic literature (Pritchard, 1969) and plays a key role in scientometrics: the quantitative analysis of science and innovation (Leydesdorff & Milojevic, 2015)]. The pioneers who established these fields in Information Science---such as Salton and Garfield---were followed by scientists who specialised in one of these (White & McCain, 1998), leading to the two loosely connected fields we know of today.

The purpose of the BIR workshop series founded in 2014 is to tighten up the link between IR and Bibliometrics. We strive to get the 'retrievalists' and 'citationists' (White & McCain, 1998) active in both academia and the industry together, who are developing search engines and recommender systems such as ArnetMiner, CiteSeerX, DocEar, Google Scholar, Microsoft Academic Search, and Semantic Scholar, just to name a few.

These bibliometric-enhanced IR systems must deal with the multifaceted nature of scientific information by searching for or recommending academic papers, patents, venues (i.e., conferences or journals), authors, experts (e.g., peer reviewers), references (to be cited to support an argument), and datasets. The underlying models harness relevance signals from keywords provided by authors, topics ex-

tracted from the full-texts, coauthorship networks, citation networks, and various classifications schemes of science.

Bibliometric-enhanced IR is a hot topic whose recent developments made the news---see for instance the Initiative for Open Citations (Shotton, 2018) and the Google Dataset Search (Castelvecchi, 2018) launched on September 4, 2018. We believe that BIR@ECIR is a much needed scientific event for the 'retrievalists' and 'citationists' to meet and join forces pushing the knowledge boundaries of IR applied to literature search and recommendation.

Castelvecchi, D.: Google unveils search engine for open data [News & Comment]. Nature (2018). doi:10.1038/d41586-018-06201-x

Garfield, E.: Citation indexes for science: A new dimension in documentation through association of ideas. Science 122(3159), 108–111 (1955). doi:10.1126/science.122.3159.108

Leydesdorff, L., Milojević, S.: Scientometrics. In: Wright, J.D. (ed.) International Encyclopedia of the Social & Behavioral Sciences, vol. 21, pp. 322–327. Elsevier, 2nd edn. (2015). doi:10.1016/b978-0-08-097086-8.85030-8

Pritchard, A.: Statistical bibliography or bibliometrics? [Documentation notes]. Journal of Documentation 25(4), 348–349 (1969). doi:10.1108/eb026482

Salton, G.: Associative document retrieval techniques using bibliographic information. Journal of the ACM 10(4), 440–457 (1963). doi:10.1145/321186.321188

Shotton, D.: Funders should mandate open citations. Nature 553(7687), 129 (2018). doi:10.1038/d41586-018-00104-7

White, H.D., McCain, K.W.: Visualizing a discipline: An author co-citation analysis of Information Science, 1972–1995. Journal of the American Society for Information Science 49(4), 327–355 (1998). doi:b57vc7

SUBMISSION DETAILS

All submissions must be written in English following Springer LNCS author guidelines (6 to 12 pages) and should be submitted as PDF files to EasyChair. All submissions will be reviewed by at least two independent reviewers. Please be aware of the fact that at least one author per paper needs to register for the workshop and attend the workshop to present the work. In case of no-show the paper (even if accepted) will be deleted from the proceedings AND from the program.

Springer LNCS: <http://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines>

EasyChair: <https://easychair.org/conferences/?conf=bir-at-ecir2019>

Workshop proceedings will be deposited online in the CEUR workshop proceedings publication service (ISSN 1613-0073) – this way the proceedings will be permanently available and citable (digital persistent identifiers and long term preservation). A special issue of the Scientometrics journal (http://link.springer.com/journal/11192) will include extended versions of the best papers presented at the workshop.

IMPORTANT DATES

Submissions:	27 Jan 2019
Notifications:	2 Mar 2019
Camera Ready Contributions:	2 Apr 2019
Workshop:	14 Apr 2019

PROGRAM COMMITTEE

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SciTS 2019:

SCIENCE OF TEAM SCIENCE CONFERENCE

20—23 MAY 2019 MICHIGAN, UNITED STATES

CALL FOR ABSTRACT AND WORKSHOP

The Program Committee would like to invite participants to submit a contribution to the Science of Team Science (SciTS) 2019 Conference that will be held in Michigan, United States (https://www.inscits.org/call-for-abstracts). The SciTS conference is the annual international forum dedicated to SciTS, bringing together thought leaders from a broad range of disciplines and fields, including: communications, management, social and behavioral sciences, information technology, systems science, and translational research. It provides investigators, academic administrators, and funders with state-of-the-art knowledge, strategies, and connections. SciTS scholars, scientists engaged in team-based research, institutional leaders who promote collaborative research, policymakers, and federal agency representatives will be in attendance. The conference is organized under the auspices of INSciTS – the International Network for the Science of Team Science (https://www.inscits.org/).

The SciTS Program Committee invites submissions from individuals or groups to conduct Special Interest Workshops and Seminars. Workshops/Sessions will be 3 hours in length. All topics relevant to the application of Science of Team Science approaches are welcomed, specifically with respect to training sessions that will equip SciTS investigators with tools and technical skills for data collection, analysis, or presentation in their research areas. Workshop/seminar proposals that incorporate a variety of instructional approaches (e.g. lecture, interactive discussion, hands-on exercises) and materials (e.g. slides, handouts, sample data) are strongly encouraged. We encourage workshops or seminars with a focus on methodologies including systems approaches to the field of SciTS as well as methodologies for conducting evaluation and understanding team dynamics. Furthermore, we welcome workshops and seminars that provide practical guidance for conducting and managing team science in a variety of contexts and settings, and workshops with a focus on developing team science educational and training resources.

SCITS 2019 TOPICS

Presentations may focus on any topic related to the Science of Team Science. These include, but are not limited to:

Artificial Intelligence & Machine Learning ■ Arts and Humanities ■ Big Data ■ Citizen Science and Crowdsourcing ■ Collaborative Readiness and Antecedents ■ Commu-

nication ■ Data Visualization ■ Distributed/Virtual Teams ■ Diversity on Teams (e.g., cultural, gender, discipline) ■ Disciplinary Diversity on Teams ■ Educational and Teaching Team Science Principles ■ Environmental Influences on Teams (e.g., organizational factors, physical environment) ■ Evaluation of Team Processes & Outcomes ■ Funding Strategies ■ Innovation and Creativity ■ Institutional Policies ■ Leadership for Effective Team Science ■ Learning & Knowledge Networks ■ Inter/Transdisciplinary Approaches ■ Methods for Science of Team Science Research ■ Multi-level/Systems Approaches ■ Multiteam Systems ■ Networks ■ Open Science ■ Organization/Management Factors ■ Philosophical Approaches ■ Promoting Team Science Values and Awareness ■ Research Networking ■ Sociotechnical Systems ■ Studies of Cross-Cultural and International Science Teams ■ Team Assembly ■ Team Composition ■ Team Dynamics ■ Team Macro-cognition ■ Team Science in the Clinical Translational Science Institutes (CTSI) ■ Team Types/Typology ■ Theoretical Approaches ■ Training & Professional Development ■ Transdisciplinary Teams ■ Translational Science Teams

KEY DATES

Call for Proposals Released:	Sep 15, 2018
Call for Proposals Closes:	Jan 21, 2019
Presenter notification:	Feb 15, 2019
Registration Opens:	Jan 1, 2019
Early Bird Registration Closes:	Mar 15, 2019
Conference date:	May 20-23, 2019

SUBMISSION OPTIONS

Extended abstract for oral presentation (max 500 words) may represent original empirical research, theoretical development, reviews, or critiques with a comprehensive description of a completed study. Poster (max 200 words). Panel presentation (max 1,000 words) must include a one abstract summarizing the overall theme of the panel, as well as individual abstracts for each presentation included in the panel. Workshop (max 1,000 words) proposed title and organizers (names, affiliations, email; identify one primary contact person); description of workshop: objectives (at least 3), goals, and expected outcomes; statement regarding how the workshop can benefit SciTS attendees/community; description of target audience and estimated number of participants (minimum and maximum); proposed workshop format, activities, and schedule; any special A/V needs; short biographical sketch for each presenter, describing relevant experience and qualifications (not included in page limit). All abstract submissions should use the Abstract Template format and be submitted as a PDF via our Abstract Submission Form.

ORGANIZING COMMITTEE

CONFERENCE CHAIR

- Michael O'Rourke, Interim Director, MSU Center for Interdisciplinary, Professor of Philosophy, AgBioResearch, Michigan State University

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- Stephanie E. Vasko, PhD, Michigan State University, vaskoste@msu.edu

15th INTERNATIONAL CONFERENCE ON WEBOMETRICS, INFORMETRICS AND SCIENTOMETRICS (WIS) & 20th COLLNET MEETING

05–08 NOVEMBER 2019, DALIAN, CHINA

CALL FOR PAPERS

The joint WIS – COLLNET meeting will be held on 05 – 08 November 2019 Dalian, China (http://collnet2019.dlut.edu.cn/meeting/index_en.asp?id=2676). The conference is co-organised by WISE Lab, Dalian University of Technology (Dalian, China), COLLNET (Berlin, Germany) and the "Committee of Theory of Science of Science and Discipline Construction, Chinese Association for Science of Science and S&T Management".

SCOPE

The main focus of this conference is laid on scientific collaboration, quantitative aspects of communication in science, technology and science policy, the science of science as well as the integration of qualitative and quantitative approaches in evaluative contexts. In particular, the conference aims to contribute to evidence-based knowledge about scientific research and practices, which, in turn, is expected to further provide input to institutional, regional, national and international policy-making in research and innovation.

We welcome contributions on theoretical, methodological and applied topics covered by the conference, which will comprise the following issues.

1. New research trends in Scientometrics, Informetrics and Webometrics
   - New research trends in Science of Science
   - Models and measurement of scholarly and wider scientific communication
   - Altmetrics & social-media metrics
   - Gender and diversity
   - Mobility and migration of scientists

2. New trends in technology, economic and policy relevant contexts
   - S&T policy and strategies
   - New methods in research assessment

Xinghai square

Coastal road

Outside of Haichuang hotel

- Quantitative and qualitative assessment: bibliometrics and peer review
- Quantitative analysis of S&T innovation
- Patent analysis and the science–technology linkage

3. Mapping of science and visualization techniques
   - Mapping and visualization of the cognitive structure of science
   - Community and topic detection
   - Analysis of complex network
   - International and cross-disciplinary collaboration network

4. Big Data and Open Science
   - Open access, open data and open source
   - Open review and open science and the academic reward system
   - Scientometrics and Big Data: Data analytics and data mining

THE ORGANISING COMMITTEE

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- General Co-Chair:
  Bernd Markscheffel (Germany)
- Organising Chair:
  Yue Chen (China)
- Organising Co-chairs:
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  Xianwen Wang (China),
  Zhigang Hu (China),
  Deming Lin (China)

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  N.K. Wadhwa (India),
  Daisy Jacobs (South Africa),
  J.K. Vijayakumar (Saudi Arabia)

IMPORTANT DATES

- **31 May 2019:** Deadline for submission of Extended Abstracts for oral presentation (max. two pages)
- **31 July 2019:** Notification of acceptance
- **31 August 2019:** Deadline for submission of full papers (Camera-ready version, max. 10 pages including tables, figures, references)

IMPORTANT NOTE

Extended abstracts should be submitted through the EasyChair submission system.

All submitted abstracts will be reviewed by the Programme Committee, accepted full papers will be published in the conference proceedings.

The Programme Committee will select excellent papers that will be invited for publication in special issues of relevant journals.

- Scientometrics
- Frontiers in Research Metrics and Analytics
- Journal of Data and Information Science
- Innovation and Development Policy
- International Journal of Knowledge Management Studies
- International Journal of Innovation Studies
- Global Transitions

CONTACT

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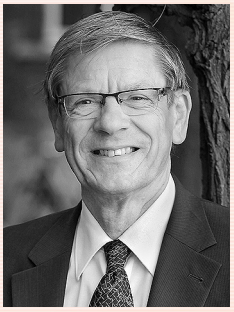
THE SECOND INTERNATIONAL CONFERENCE ON DATA-DRIVEN KNOWLEDGE DISCOVERY



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LOCATION

This conference took place in Beijing (China) from 1 to 2 November 2018, and was organized by the Journal of Data and Information Science (JDIS), Center of Scientometrics of the National Science Library, Chinese Academy of Sciences (CAS). The organizers had chosen an excellent location, namely the North Star Yuanchenxin International ho-

Fig. 1 The conference's location (tower on the right)

tel. This hotel, part of a twin tower complex is situated near the Yuan Dadu City Wall Ruins Park, a long and narrow park which contains ruins of the wall of the capital of the Yuan dynasty, the Mongolian dynasty which reigned over China during the time that Marco Polo visited. The hotel's rooftop revolving restaurant has spectacular views of Beijing, including the Olympic site with the Bird's Nest. As a pleasant surprise attendants received a pre-view copy of the special issue of JDIS (edited by Gunnar Sivertsen) dealing with the Norwegian model and several models derived from it.

THE CONFERENCE ITSELF

Professor Huizhou Liu, director of the National Science Library, CAS opened the conference with a speech including among others the function of the National Science Library within the Chinese Academy of Sciences, the University of CAS and the Chinese scientific landscape in general.

Talks were subdivided into topics, and corresponding sessions, which dealt with the evolution of science, policy and research evaluation, indicators and models for Science & Technology (S&T), the research performance of China, knowledge mapping and text mining.

Some presentations could be described as traditional scientometrics, such as a presentation about delayed recognition or those focusing on interdisciplinarity, but most could best be described as applications of data-driven complex systems, including different principles of mapping science as part of the science of science. Moreover, ample attention was given to science policy implications.

Conference speakers included (in alphabetical order); Kevin Boyack (USA), Ting Chen (CAS), Yue Chen (Dalian University of Technology), Jian Du (Chinese Academy of Medical Science), Rainer Frietsch (Germany, Fraunhofer Institute), Xiaojun Hu (Zhejiang University), Sarah Huggett (Elsevier), Tao Jia (South West University), Henning Kroll (Germany, Fraunhofer Institute), Jiang Li (Nanjing University), Chang Liu (Peking University), Ed Noyons (the Netherlands, CWTS), Ronald Rousseau (Belgium, KU Leuven & Antwerp University), Gunnar Sivertsen (Norway, NIFU), Li Tang (Fudan University), Zhesi Shen (CAS), Juncheng Wang (ISTIC), Jinshan Wu (Beijing Normal University), Fei Yu (USA, University of North Carolina), Weiping Yue (Clarivate Analytics), Lin Zhang (Wuhan University), An Zeng (Beijing Normal University), Xiaolin Zhang (CAS & ShanghaiTech), and Zhixiong Zhang (CAS).

This list is not meant as a case of (personal) name dropping, but rather to show that the main research institutions in China and several leading institutes in the West were represented at this conference.

CONTENTS

Without going into details and – deliberately – mixing statements made by different speakers, I mention the following topics and observations raised by contributors.

Several talks mentioned different aspects of Open Science or freely available software such as OpenRefine (formerly Google Refine), a standalone open source application for data cleanup and transformation to other formats; NIH's iCite for bibliometric

Fig. 2. Main speakers

analysis, and Stanford's node2vec algorithm for machine learning. In relation with Open Science colleagues mentioned novel forms of journal and book evaluation, and studied the impact of science on society.

Other talks focused on transformative research: how to see the difference with incremental research (and when is it possible to notice the difference), can transformative research be predicted, and is it really undercited? Which policies have the potential to lead to more transformative research?

We already mentioned above that several presentations saw science as a complex system and reported on links between different layers in this system, e.g. the author, article, patent, concept layer, and the search for regularities in it. Network communities were studied, an occasion to mention the newly developed Leiden algorithm for community detection (Traag et al., 2018). Talks related to science-industry linkages can also be mentioned here. As a special case of a network study, Henning Kroll presented the network of the 7th European framework program participation.

Sarah Huggett discussed Elsevier's Artificial Intelligence Resource Center available at www.elsevier.com/connect/ai-resource-center. This discussion was very timely in view of the plans of the NSFC (National Natural Science Foundation of China) and many journal editors to use AI for project evaluation (Heaven, 2018; Horvat, 2018).

Related articles defined by textual similarity were shown to lead to new mappings of science as did interactions at the level of research areas.

Finally, Gunnar Sivertsen provided some highlights of the JDIS issue edited by him.

CONCLUSION

Prof. Xiaolin Zhang, the driving force behind this event made sure that discussions stayed to the point and presentations ended in time. He made no secret that the main reasons for organizing this event were: assuring that leading Chinese scholars in the field of science of science and data analysis could meet in a relaxed atmosphere with counterparts from the West; attracting good quality papers for JDIS and giving some extra publicity to the journal, e.g. by inviting representatives of Elsevier and Clarivate Analytics. In my opinion, these objectives are certainly met. I am looking forward to the third conference to be held in the year 2020.

A final word of thanks goes to the organizers and the editorial office of JDIS under the direction Ping Meng.

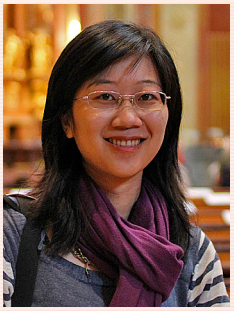
REFERENCES

Heaven, D. (2018). The age of AI peer reviews. Nature, 563(7733), 609-610.

Horvat, M. (2018). Reform and collaboration in China. Science, 362(6416), p. 727.

Traag, V., Waltman, L., & van Eck, N.J. (2018). From Louvain to Leiden: guaranteeing well-connected communities. https://arxiv.org/abs/1810.08473

CITATION AND USAGE INDICATORS OF MONOGRAPHIC LITERATURE IN THE SOCIAL SCIENCES



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Abstract: This study summarises and extends unpublished results presented in a video contribution by the authors to the OST Workshop "Characterization of scientific production in social sciences and humanities" held in Paris on 23 may 2018. The objective of the study is the comparison of citation and usage-metrics based indicators of monographic literature indexed in the Web of Science in the social sciences, on the one hand, and with indicators in journal literature, on the other hand.

BACKGROUND

The Book Citation Index (BKCI) is a new collection in the Web of Science Core Collection (WoS) which allows users to discover book literature and trace its citation links alongside journal literature (Adams & Testa, 2011). The WoS provides "daily-updated usage counts of indexed publications on its platform to measure the level of interest in a specific item since September 2015. The counts show the number of times the full text of a record has been accessed or a record has been saved in the last

180 days or since 1 February 2013" (Clarivate Analytics, 2018). This measure provides a different perspective from citation data to measure the level of interest in a specific item focusing on communication among scholars. The BKCI on the WoS platform thus provide the chance to trace the usage and citation data for book publications.

The results of our previous studies (Chi & Glänzel, 2017; 2018b) based on periodical literature showed that citations and usage counts in WoS correlate significantly for journal papers. The application of Characteristic Scores and Scales (CSS) to the journal samples proved the usefulness and robustness of the method also in the context of usage distributions. In the present study, we aim at deepening the results of the previous study by extending the dataset to the book publications in the BKCI and focusing on the disciplinaries in the social sciences. We have compared metrics for citations and usage to measure the impact of research output within the framework of scholarly communication, and to measure the level of interest in a specific item focusing on communication among scholars. Both of the metrics are standardised and based on processes, i.e., both are cumulative metrics and reflect aspects of literature ageing. Furthermore, both of them can be calculated per chapter and the complete work.

DATA SOURCES

All indicators built in this project and calculated for this study are based on bibliographic items downloaded from the online version of the Book Citation Index– Science (BKCI-S) and the Book Citation Index– Social Sciences & Humanities (BKCI-SSH) of Clarivate Analytics WoS database on 15th of December, 2017. The overlap with journals (SCI/SSCI/AHCI) were removed to obtain a correct book dataset. The volume year 2013 was used to obtain an observation period of five years, i.e., 2013–2017 for citation and usage data.

DOCUMENT TYPE

Three document types were selected for further analyses. Edited books and authored books were compared with each other at aggregated levels, while the "citable items", i.e., documents of the type article, letter and review for book chapters was taken into account. All the records with editor but no author data were assigned to edited books, while records with author data only were coded authored books. An additional criterion for an edited book is that an edited book should have more than one item (i.e. at least one book chapter apart from book item), thus one lecture book was excluded.

Table 1. Sample sizes of the six subfields in the social sciences according to the modified Leuven—Budapest classification scheme

MAJOR FIELD	CODE	SUBFIELD	AUTHORED BOOK	EDITED BOOK	BOOK CHAPTER
SOCIAL SCIENCES I	Y1	Education, media & information science	326	19	764
	Y2	Sociology & anthropology	427	52	1,267
	Y3	Community & social issues	453	81	1,906
SOCIAL SCIENCES II	L1	Business, economics, planning	664	421	12,159
	L2	Political science and administration	562	264	7,784
	L3	Law	300	150	4,891

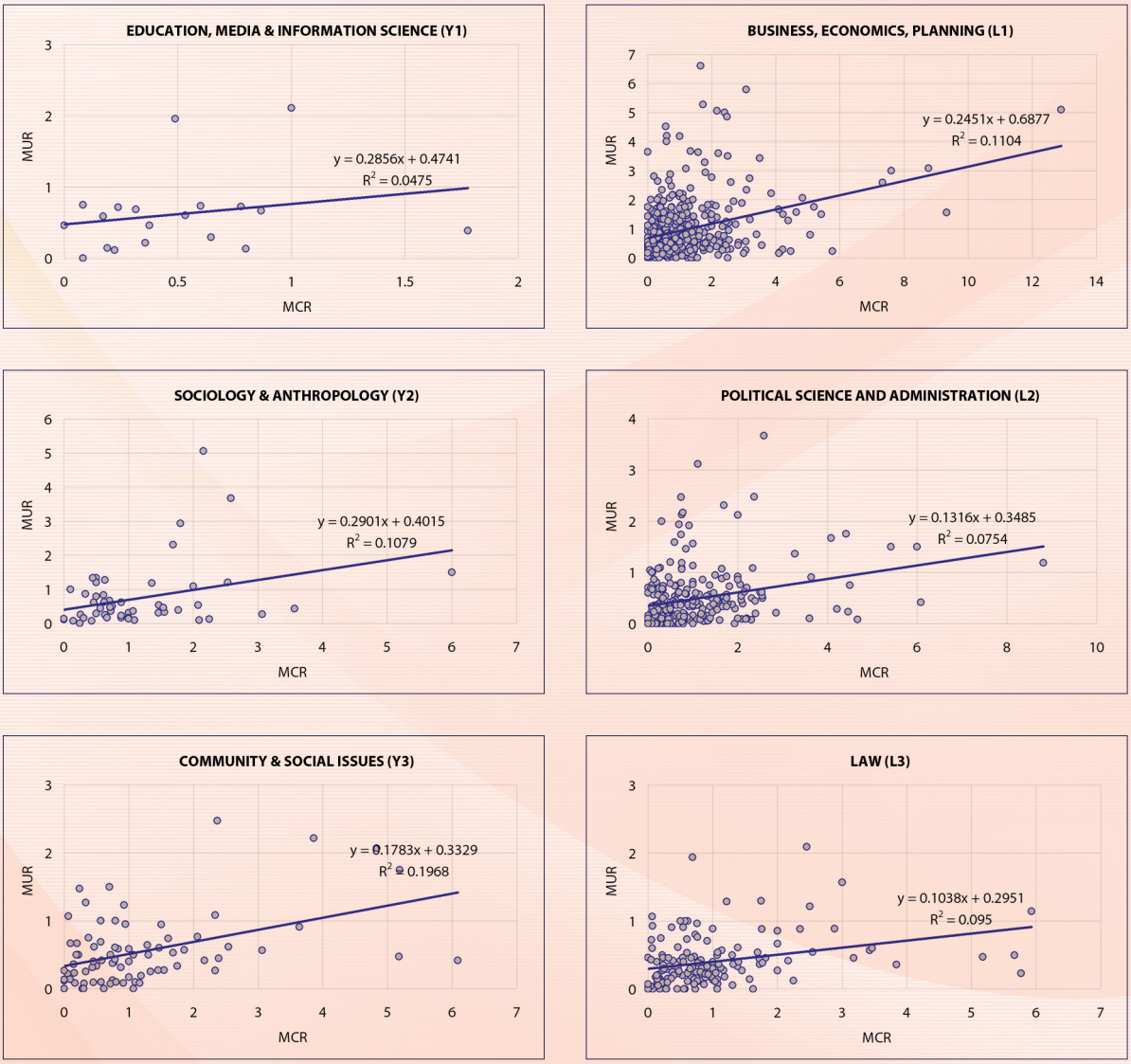

Figure 1. Scatter plots of MCR vs. MUR of edited books in six subfields (2013)

FIELD CLASSIFICATION

The whole 2013 BKCI publications in two major fields based on the modified Leuven-Budapest classification system (see Glänzel, Thijs & Chi, 2016) related to the social sciences, Social Sciences I (general, regional & community issues) and Social Sciences II (economic, political & legal studies), were selected to analyse the relations between usage and citation impact. This is done because of the distinctly different communication patterns of the social sciences and humanities (SSH) as compared to the sciences. In this study we will focus on six subfields in these two major fields (see Table 1).

RESULTS

Firstly we look at the correlations between usage and citations of edited books as an example shown in Figure 1. There are two important observations deserved to draw attention to: the correlation coefficient and the slope for interpreting the correspondence of the variables. In general, we found weak correlations between the mean usage rate (MUR) and the mean citation rate (MCR) in all the subfields. The slopes of the linear trendlines in the scatter plots of six subfields are all below 0.3. The results conducted by the same method applied to journal articles in our previous study (Chi & Glänzel, 2018b) are provided as control.

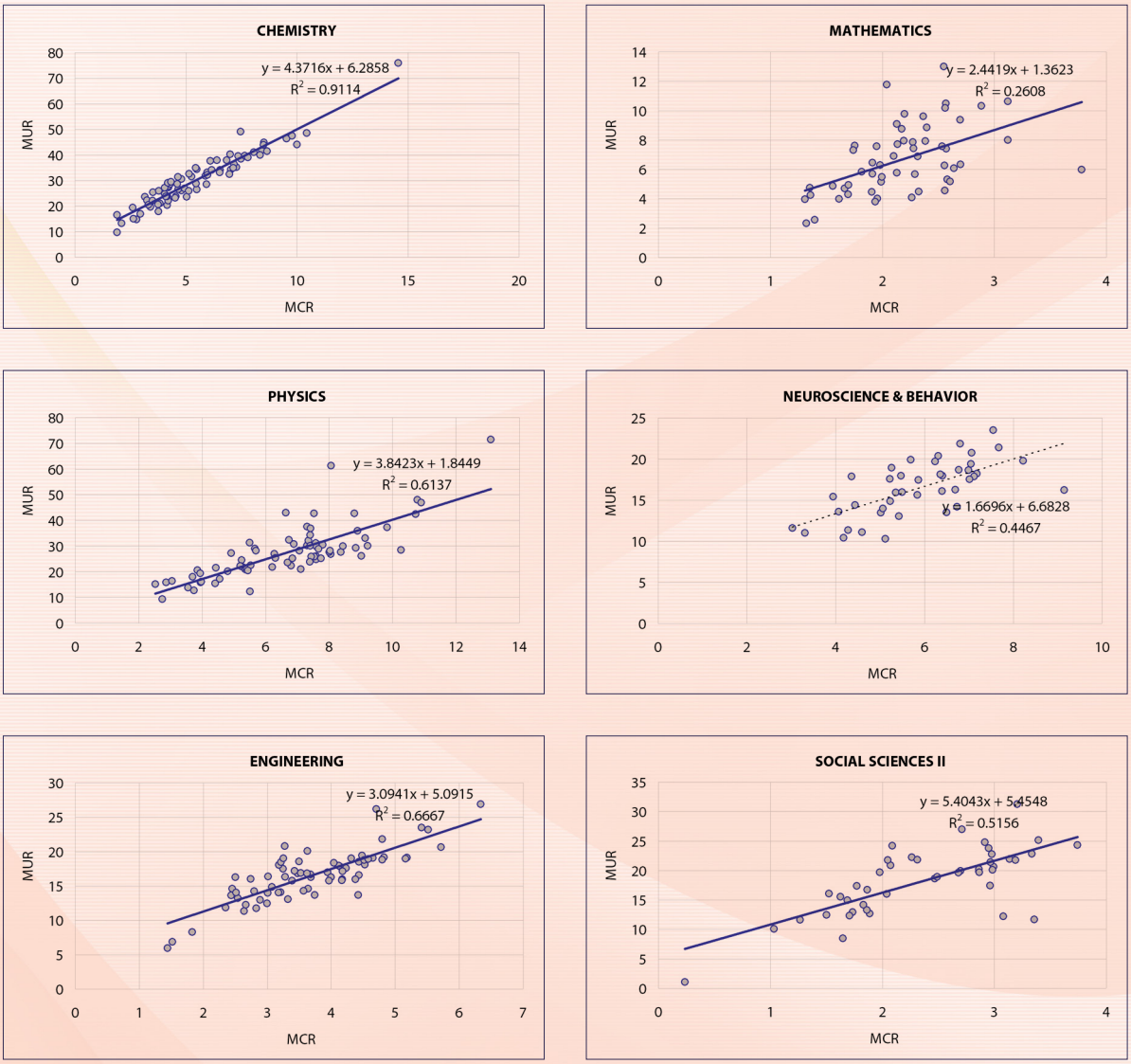

Figure 2. Scatter plots of MCR vs. MUR of countries with at least 100 papers in six major fields (2013)

Figure 2 shows a varying strength from moderate to strong correlations between citations and usage with "translation" factor ranging between about 2 to 5 for journal literature in all the fields. By contrast, edited books in the social sciences own very low usage despite slow ageing in terms of citation processes.

To answer a further question: does document type make any difference? We applied the same method again to the three document types in the two major fields. Figure 3 shows again the low correlation strength with "translation" factor ranging between 0.02 to 0.2, which is similar to Figure 1. Among the three document types, authored books have relatively high citations and low usage. Edited books are more similar to book chapters in terms of their linear slopes. In addition, Figure 3 also reveals that book literature in SOCIAL SCIENCES II has higher citation counts than SOCIAL SCIENCES I. Another analysis distinguishing the differences among the three document types was presented as relative charts in Figure 4. Authored books have the most distinct pattern based on the relative performance of each subfield among its major field.

We also measure the distributions of citations and usage counts with the CSS method to compare the patterns of monographs with journals. Despite the found differences, CSS still works for both usage and cites, journals and books. Table 2

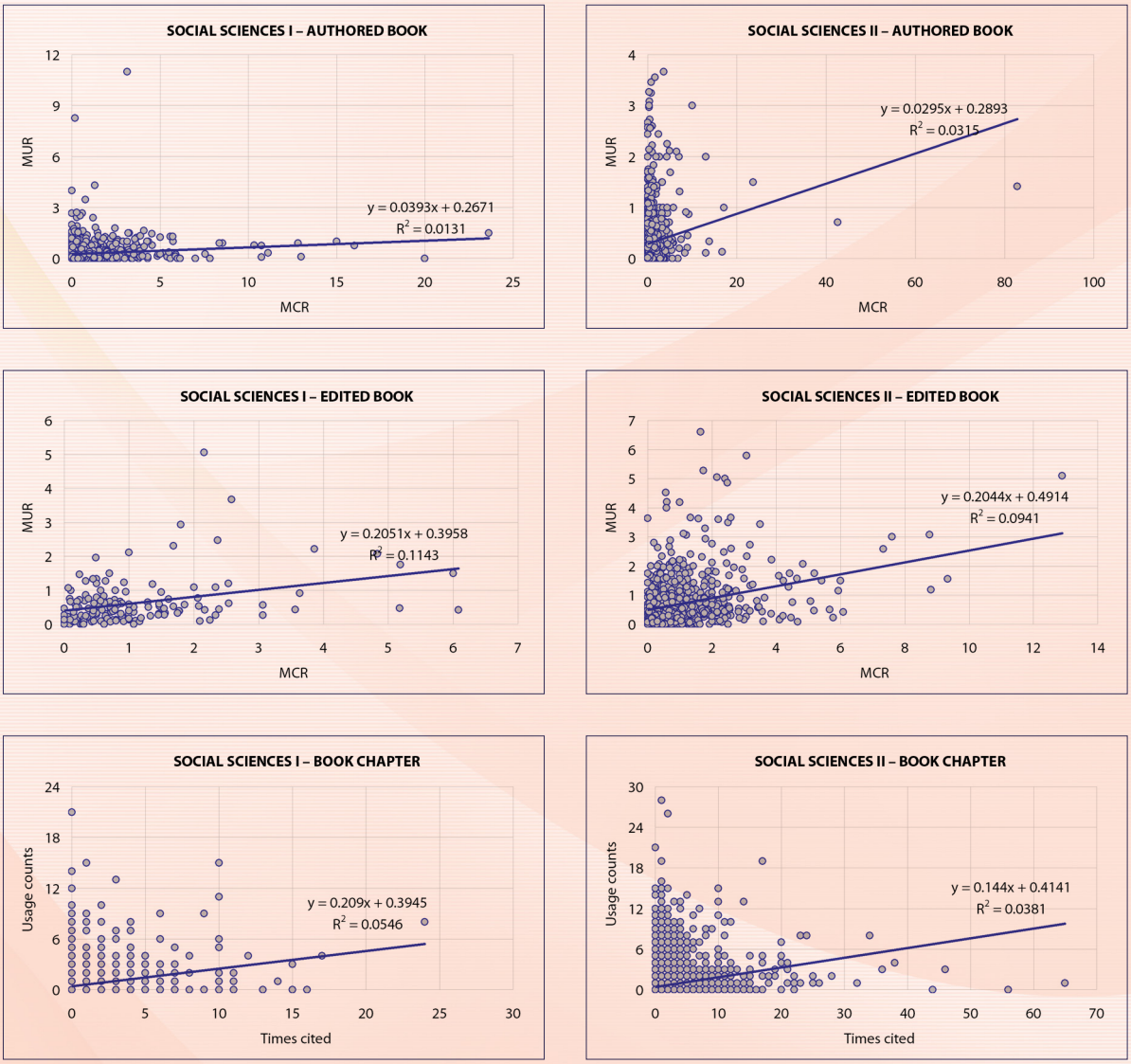

Figure 3. Scatter plots of MCR vs. MUR of three document types in two major fields (2013)

shows a robust CSS pattern of authored books in all the subfields of the social sciences. The citation scores in Table 2 confirm the mentioned finding from Figure 3 that book literature in SOCIAL SCIENCES II has higher citation numbers than SOCIAL SCIENCES I. Table 2 also shows that usage scores of authored books are lower than their citation performance. However, the results of CSS applied to journal papers in previous study (cf. Tables 2 and 3 in Chi & Glänzel, 2018b) showed that subfields in the social sciences have much higher usage scores than citation ones. This implies that the actively use on the BKCI is not as ubiquitous as the other journal indexes of WoS.

DISCUSSION

What did we learn from this exercise? First, we found different citation and usage patterns from periodical and monographic literature. Journal articles have moderate to strong correlation with high usage while book publications have week to moderate correlation with low usage. In terms of WoS usage statistics of journal articles, social sciences exhibited disproportionately higher "usage" than citation impact (Chi & Glänzel, 2018b). This did not strike us unexpectedly since citations to periodicals play a less pronounced part than in the sciences. However, the WoS usage of the BKCI literature in this study lacks the similar pattern in the

Table 2. Comparison of CSS classes of authored books in six subfields (2013)

CODE	PAPERS	CITATION SCORE			USAGE SCORE			CITATION CLASS				USAGE CLASS			
		b^1	b^2	b^3	b^1	b^2	b^3	Class 1	Class 2	Class 3	Class 4	Class 1	Class 2	Class 3	Class 4
Y1	326	8.6	23.7	44.0	4.7	13.2	25.3	71.2%	19.3%	7.7%	1.8%	70.2%	20.6%	5.8%	3.4%
Y2	427	9.4	22.4	44.9	2.6	7.3	15.9	68.1%	23.4%	6.6%	1.9%	71.0%	21.3%	6.1%	1.6%
Y3	453	10.5	28.5	51.5	3.0	7.1	14.1	71.5%	19.0%	7.1%	2.4%	64.0%	26.3%	7.1%	2.6%
L1	664	9.9	35.7	113.7	4.4	11.2	21.9	77.6%	18.2%	3.3%	0.9%	69.7%	22.0%	5.7%	2.6%
L2	562	9.4	25.5	52.4	2.6	5.9	10.1	70.6%	21.0%	6.0%	2.3%	63.0%	24.0%	9.1%	3.9%
L3	300	6.4	16.0	27.6	2.8	6.8	12.3	68.3%	21.3%	6.3%	4.0%	67.3%	21.7%	8.3%	2.7%

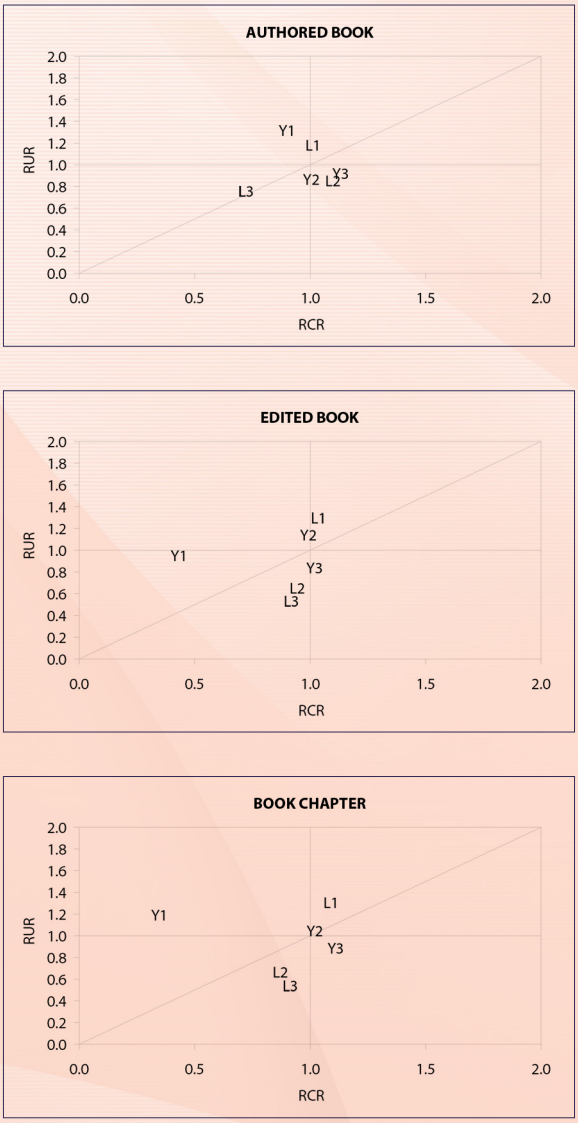

Figure 4. Relative charts of three document types in six subfields (2013)

social sciences, but shows much lower usage counts than citations instead. This may imply the non widespread access of the BKCI compared to the journal indexes of WoS.

Second, we found it interesting that the usage of authored and edited books did not reflect the same patterns. Even though the differences between edited and authored books in terms of the citation impact and ageing are much less significant than those between books and journals (cf. Glänzel et al., 2016), authored books have the most different patterns from edited books and book chapters. Last, bibliometric regularities which work in all cases (books – journals and citations – usage) were proven to remain valid (cf. CSS, relative indicators) but citation/usage scores take essentially different values for books.

While the meaning of citations is by and large clear, even in SSH, it is not (yet) clear what usage means after all. The same applies to the interpretation of usage decay compared to citations ageing. More observation time is needed to obtain meaningful results. Future research questions may include the following issues: studying time series to find optimum time windows for the calculation of baseline values and for benchmarking (usage vs citation impact); finding the optimum granularity for subject classification and normalisation of both citation and usage counts.

ACKNOWLEGMENT

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