Editorial

Message from the new Editor-in-Chief

It is an honor to succeed Leo Egghe as Editor-in-Chief of Journal of Informetrics (JOI). Leo founded the journal in 2007, and for eight years he has managed the journal in a very careful and professional manner. I believe Leo has done an outstanding job. Under Leo's editorship, JOI has become a prestigious journal that is well known for publishing high-quality quantitative work in the field of informetrics. I want to thank Leo for his exceptional service to the informetric community.

In this editorial, I will first look back at the development of JOI during the past eight years. I will then look forward and present some plans for the future. Finally, I will announce some changes in the editorial board of JOI.

Looking back

Let me start by looking back at the way JOI has developed during the past eight years (for a similar analysis of the development of JOI during the period 2007–2011, see Egghe, 2012). Fig. 1 shows the yearly number of publications in JOI during the period 2007–2014. The analysis was done using the Web of Science database. Publications of all document types (i.e., articles, letters, reviews, editorials, and corrections) were included. The results for 2014 are incomplete, because at the time of the analysis only the first two issues of JOI in 2014 were included in the Web of Science database.

As can be seen in Fig. 1, the number of publications in JOI was relatively small in the first three years after the journal was founded, with around 35 publications per year. During the next years, the number of publications has increased steadily, resulting in over 100 publications in 2013. A similar number of publications is expected for 2014.

What are all these publications about? To answer this question, a network of citation relations between the publications was constructed and analyzed. For each pair of publications, the relatedness of the publications was calculated as a weighted sum of the number of bibliographic coupling relations, the number of co-citation relations, and the number of direct citation
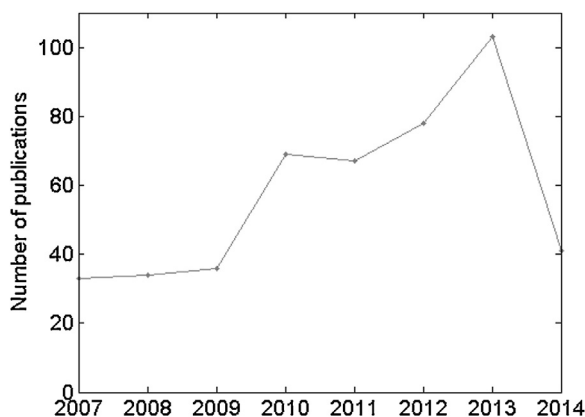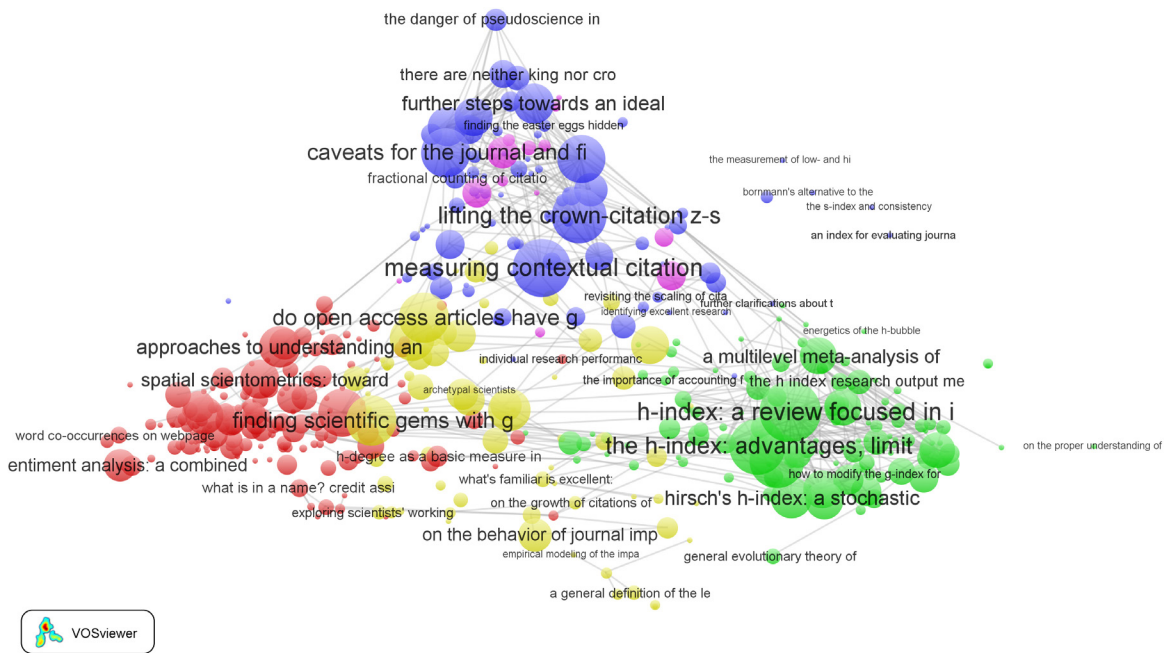

Fig. 1. The yearly number of publications in JOI during the period 2007–2014. The results for 2014 are incomplete.

Fig. 2. VOSviewer visualization of the network of citation relations between publications in JOI in the period 2007–2014. (For interpretation of the references to color in text, the reader is referred to the web version of the article.)

relations of the publications. Bibliographic coupling and co-citation relations were given a weight of one, while direct citation relations received a weight of five. This is based on the idea that a direct citation relation provides a stronger indication of the relatedness of two publications than a bibliographic coupling or co-citation relation. The network of citation relations between publications was used as input for the VOSviewer software. The software then produced a visualization of the network. It also grouped the publications into a number of clusters. It should be noted that of the 461 publications 12 were excluded from the analysis. These 12 publications have no or almost no citation relations with the other 449 publications.

Fig. 2 shows the VOSviewer visualization of the network of citation relations between JOI publications. An interactive version of the visualization presented in Fig. 2 is available online at http://goo.gl/gXT1qu. The interactive visualization offers zooming functionality that can be used to explore the visualization in full detail. The interpretation of the visualization is as follows:

- Circles indicate publications. For some publications the title is shown, but for most publications it is not. This is done in order to prevent titles from overlapping each other. In the interactive version of the visualization, the titles of all publications can be found.
- The size of a circle indicates the number of citations of the corresponding publication. The larger a circle, the larger the number of citations of the publication.
- The distance between two circles approximately indicates the relatedness of the corresponding publications. In general, the smaller the distance between two circles, the higher the relatedness of the publications.
- Lines indicate the 500 strongest citation relations between publications.
- The color of a circle indicates the cluster to which the corresponding publication belongs.

Five clusters of publications have been identified, indicated using five different colors in Fig. 2. These clusters represent the main topics covered by JOI in the period 2007–2014. Let me briefly discuss what each cluster is about:

- *Red cluster (159 publications).* This is the cluster located in the lower left area in Fig. 2. This cluster mainly deals with the analysis of bibliometric networks, such as co-authorship networks and citation networks.
- *Green cluster (123 publications).* This is the cluster located in the lower right area in Fig. 2. This cluster focuses on the *h*-index and other related indices.
- *Blue cluster (79 publications).* This is the larger cluster located in the upper area in Fig. 2. Advanced bibliometric indicators, especially field-normalized citation impact indicators, are the main topic of this cluster.
- *Yellow cluster (74 publications).* This is the cluster located in the lower central area in Fig. 2. This cluster is of a somewhat heterogeneous nature. Two important topics in this cluster are journal impact indicators, mainly the journal impact factor, and the study of informetric models and informetric distributions.

- *Purple cluster (14 publications).* This is the smaller cluster located in the upper area in Fig. 2. This cluster is about peer review.

Based on the above overview of the main topics covered by JOI, an important conclusion is that JOI has a strong focus on the topic of bibliometric indicators, in particular citation impact indicators. The green and blue clusters are completely devoted to this topic, and also many publications in the yellow cluster relate to this topic. Hence, the topic of bibliometric indicators has been the dominant theme in JOI during the period 2007–2014, with more than half of the publications in JOI dealing with this topic (for a similar observation based on the period 2007–2011, see Egghe, 2012).

Looking forward

Having discussed the development of JOI during the past eight years, let me now turn to the future. How do I want JOI to develop during, say, the next five years? My primary objective for the coming years is to further increase the quality level of publications in JOI. Publications in JOI should meet rigorous quality standards and should make a really significant contribution to the field of informetrics. In order to further increase the quality level of publications in JOI, I have the following plans:

- As an editor, I intend to have an active role in the management of submissions to the journal. Recommendations made by referees, who can be either editorial board members or ad hoc referees, will of course play an important role in editorial decisions. However, as we all know, journal peer review is an imperfect system, with for instance different referees sometimes giving completely opposite recommendations on a manuscript. I believe that active involvement of the editor is needed to manage the peer review process. I therefore consider it to be part of my role as editor to indicate to authors which referee comments are essential to be implemented in a revised manuscript and which referee comments are less important. I may also give my own comments on submitted manuscripts, in addition to the comments made by referees. At the same time, authors do not need to slavishly follow the recommendations made by referees or by the editor. Authors should feel free to object against recommendations with which they do not agree. It is the editor's responsibility to consider both the arguments made by referees and the counterarguments made by authors and based on this to make a final decision on the acceptance or rejection of a manuscript. In general, I want to avoid a lengthy peer review process and I want to reduce the problem of 'publishing as prostitution' (Frey, 2003), in which authors try to satisfy the demands of referees by modifying their manuscripts in ways they actually do not agree with. The main objective of the peer review process of JOI will be to make proper decisions on the acceptance or rejection of manuscripts, not to force authors to fine-tune their manuscripts by following exactly all demands made by referees.
- As we have seen above, at least half of the publications in JOI deal with bibliometric indicators. It is my hope that in the future the journal will move toward a more balanced distribution of publications over different informetric topics. Bibliometric indicators will definitely remain an important topic in the coming years, but this topic should become less dominant in the journal. I will therefore be selective in accepting manuscripts on bibliometric indicators. JOI will remain highly interested in publishing manuscripts in which rigorous theoretical or empirical analyses of bibliometric indicators are presented, but the journal will be less interested in publishing yet another proposal on for instance a new variant of the h-index. Furthermore, I want to encourage authors to reflect more deeply on the practical use of bibliometric indicators instead of focusing on indicators mainly from a mathematical or technical point of view.
- Publications in JOI should make a really significant contribution to the field of informetrics, either from a theoretical or from an empirical perspective. For this reason, publishing small contributions in a letter to the editor or a brief communication will no longer be possible. Contributions should always be made in full-length articles. Letters to the editor will be considered for publication only when used to comment on earlier work published in JOI. Furthermore, case studies, for instance a bibliometric analysis focusing on a specific research field or a specific country, will generally not be published in JOI, except for case studies that make a fundamental contribution to informetric research by introducing innovative methodological ideas. This strict policy regarding case studies, which is fully in line with the policy that was followed by the previous editor, is explicitly mentioned in the revised aims and scope statement of the journal.

Changes in the editorial board

I would like to draw attention to some changes in the editorial board of JOI. Viv Cothey, Donald Kraft, Hildrun Kretschmer, Thierry Lafouge, Katherine McCain, I.K. Ravichandra Rao, Ian Rowlands, and Liwen Vaughan have left the editorial board. I want to thank them for serving in the editorial board during the past eight years. I welcome Giovanni Abramo, Raf Guns, Vincent Larivière, Thierry Marchant, Filippo Radicchi, Ismael Rafols, Javier Ruiz Castillo, and Jesper Schneider as new members of the editorial board of JOI.

I am looking forward to working together with authors, referees, editorial board members, and Elsevier staff to advance the development of JOI and of informetric research more generally. I very much welcome feedback on the way JOI is developing. Please do not hesitate to contact me if you have any comments or suggestions related to JOI.

References

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Ludo Waltman
Centre for Science and Technology Studies, Leiden University, The Netherlands
E-mail address: waltmanlr@cwts.leidenuniv.nl