TD COST Action TD1306
"New Frontiers of Peer Review"

Large-scale exploration of peer review across research domains

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PEERE aims to improve efficiency, transparency and accountability of peer review

The objectives of this Action are:

(i) to analyze peer review in different scientific areas by integrating quantitative and qualitative research and incorporating recent experimental and computational findings;

(ii) to evaluate implications of different models of peer review and to explore new incentive structures, rules and measures to improve collaboration in all stages of the peer review process;

(iii) to involve science stakeholders in data sharing and testing initiatives;

(iv) to define collaboratively a joint research agenda that points to an evidence-based peer review reform

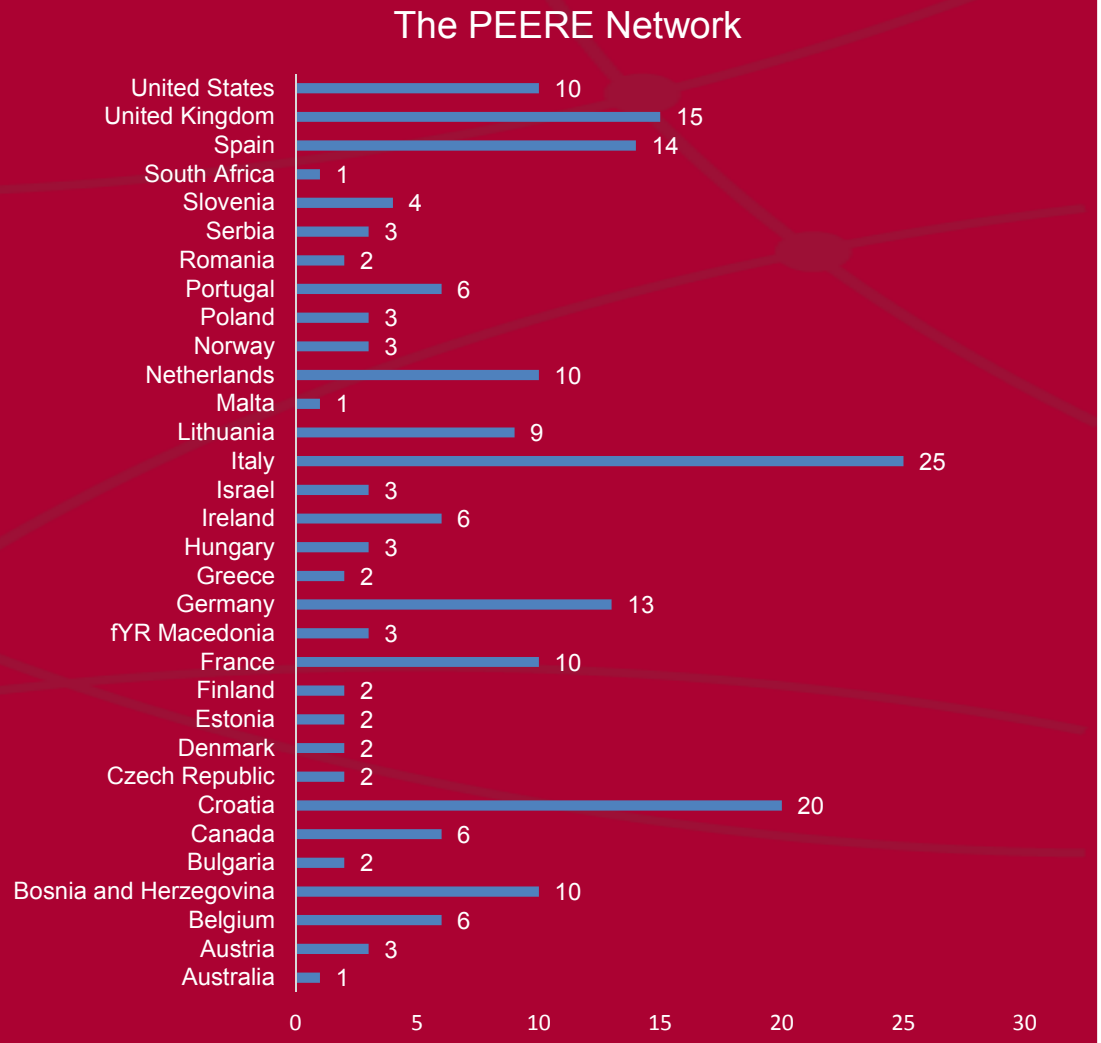
32 countries, including the US, about 260 members

Participations

Country	Date	Status
Austria	10/01/2014	Confirmed
Belgium	29/01/2014	Confirmed
Bosnia and Herzegovina	17/10/2014	Confirmed
Bulgaria	05/02/2014	Confirmed
Croatia	14/02/2014	Confirmed
Czech Republic	19/06/2014	Confirmed
Denmark	10/02/2014	Confirmed
Estonia	23/01/2014	Confirmed
Finland	24/01/2014	Confirmed
France	05/12/2013	Confirmed
fYR Macedonia	24/09/2014	Confirmed
Germany	07/01/2014	Confirmed
Greece	11/12/2013	Confirmed
Hungary	23/01/2014	Confirmed
Ireland	29/01/2014	Confirmed
Israel	28/11/2013	Confirmed
Italy	30/12/2013	Confirmed
Lithuania	26/10/2015	Confirmed
Malta	02/01/2014	Confirmed
Netherlands	23/12/2013	Confirmed
Norway	23/01/2014	Confirmed
Poland	10/12/2013	Confirmed
Portugal	25/01/2014	Confirmed
Romania	11/03/2016	Confirmed
Serbia	17/06/2014	Confirmed
Slovenia	20/03/2014	Confirmed
Spain	27/11/2013	Confirmed
Sweden	31/03/2014	Confirmed
Switzerland	16/01/2014	Confirmed
United Kingdom	22/11/2013	Confirmed
Total: 30		

COST International Partner Countries

Institution Name	Country
Council for Scientific and Industrial Research	South Africa
University of Washington at Seattle	United States of America
Harvard University	United States of America



PEERE "New Frontiers of Peer Review"

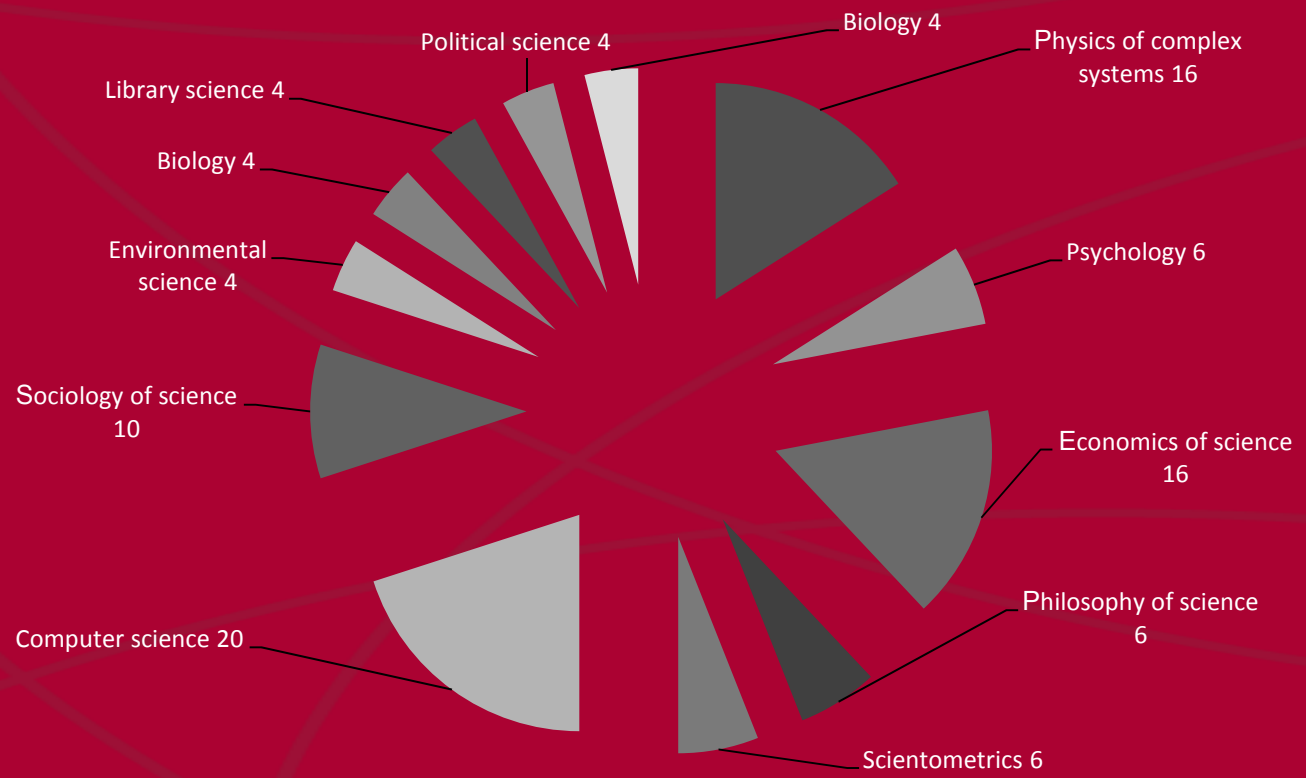
www.peere.org

info@peere.org

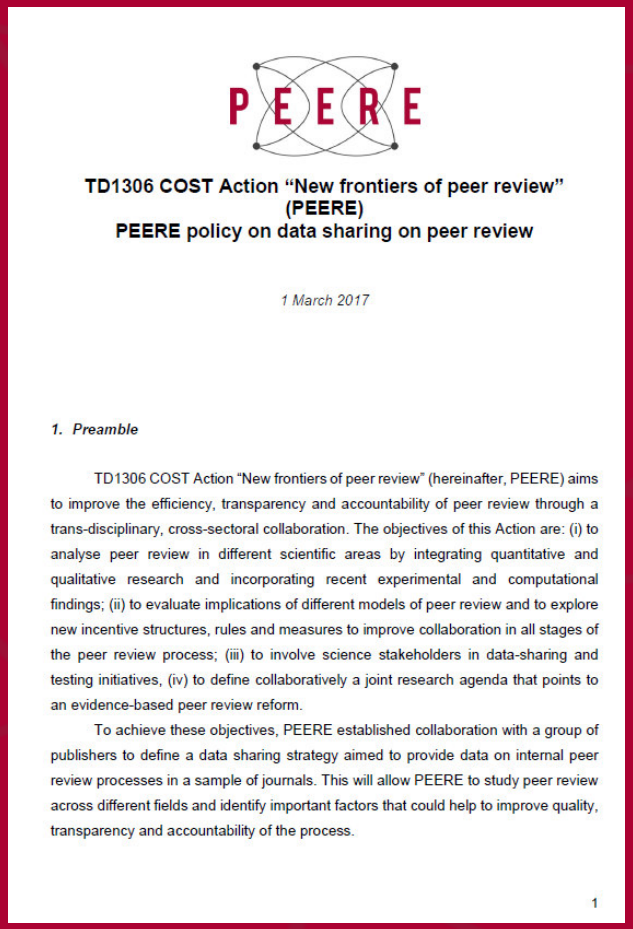
EASE 2018 Bucharest

cost EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

«Community building»: a transdisciplinary community



A protocol for data sharing



TD1306 COST Action "New frontiers of peer review" (PEERE)
PEERE policy on data sharing on peer review

1 March 2017

1. Preamble

TD1306 COST Action "New frontiers of peer review" (hereinafter, PEERE) aims to improve the efficiency, transparency and accountability of peer review through a trans-disciplinary, cross-sectoral collaboration. The objectives of this Action are: (i) to analyse peer review in different scientific areas by integrating quantitative and qualitative research and incorporating recent experimental and computational findings; (ii) to evaluate implications of different models of peer review and to explore new incentive structures, rules and measures to improve collaboration in all stages of the peer review process; (iii) to involve science stakeholders in data-sharing and testing initiatives, (iv) to define collaboratively a joint research agenda that points to an evidence-based peer review reform.

To achieve these objectives, PEERE established collaboration with a group of publishers to define a data sharing strategy aimed to provide data on internal peer review processes in a sample of journals. This will allow PEERE to study peer review across different fields and identify important factors that could help to improve quality, transparency and accountability of the process.

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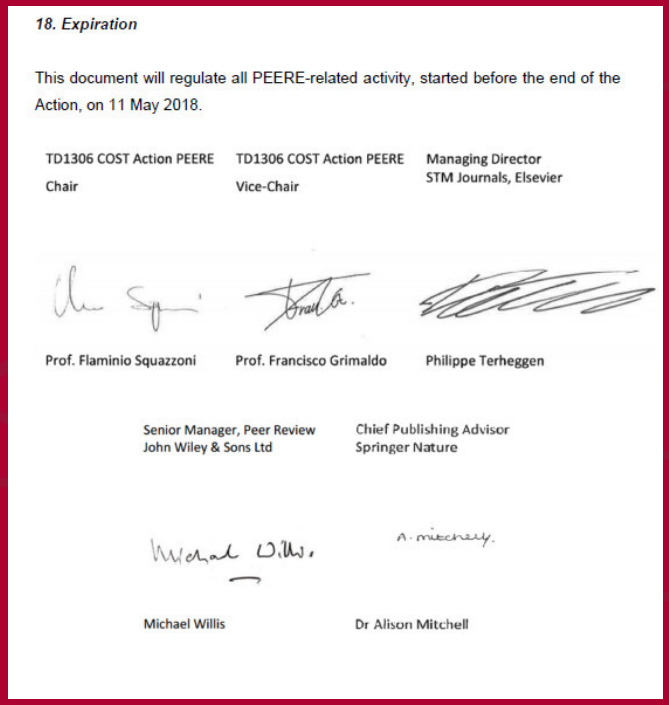

18. Expiration

This document will regulate all PEERE-related activity, started before the end of the Action, on 11 May 2018.

TD1306 COST Action PEERE	TD1306 COST Action PEERE	Managing Director
Chair	Vice-Chair	STM Journals, Elsevier
Prof. Flaminio Squazzoni	Prof. Francisco Grimaldo	Philippe Terheggen

Senior Manager, Peer Review	Chief Publishing Advisor
John Wiley & Sons Ltd	Springer Nature
Michael Willis	Dr Alison Mitchell

Correspondence

Journals could share peer-review data

Before dispensing with peer review in favour of open science, responsible scientists need to do everything they can to improve this centuries-old system. Our experience shows that journals that share information on all aspects of the peer-review process can foster transparency and accountability in publishing, while protecting the interests of authors, reviewers, editors and researchers.

As part of PEERE, a large European Cooperation in Science and Technology (COST) Action project funded by the European Union, researchers teamed up with the publishers Elsevier, Springer Nature (which publishes *Nature*) and Wiley to devise a protocol for sharing such information (see go.nature.com/2rx5ert). Our publicly available protocol has already been piloted in hundreds of journals and is tackling issues such as anonymity, privacy and data management.

This systematic investigation of the review process will enable more journals to recognize biases against the publication of innovative research, to test different peer-review models and to work out how best to engage and reward reviewers.

We invite scholars, editors and publishers to participate in the PEERE initiative by contacting us.

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Francisco Grimaldo *University of Valencia, Spain.*
Ana Marušić *University of Split, Croatia.*
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PEERE "New Frontiers of Peer Review"
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EASE 2018 Bucharest

cost EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

The PEERE dataset
Something new is coming!

180 journals (Elsevier, Wiley and Royal Society)
8 years
+2million scholars

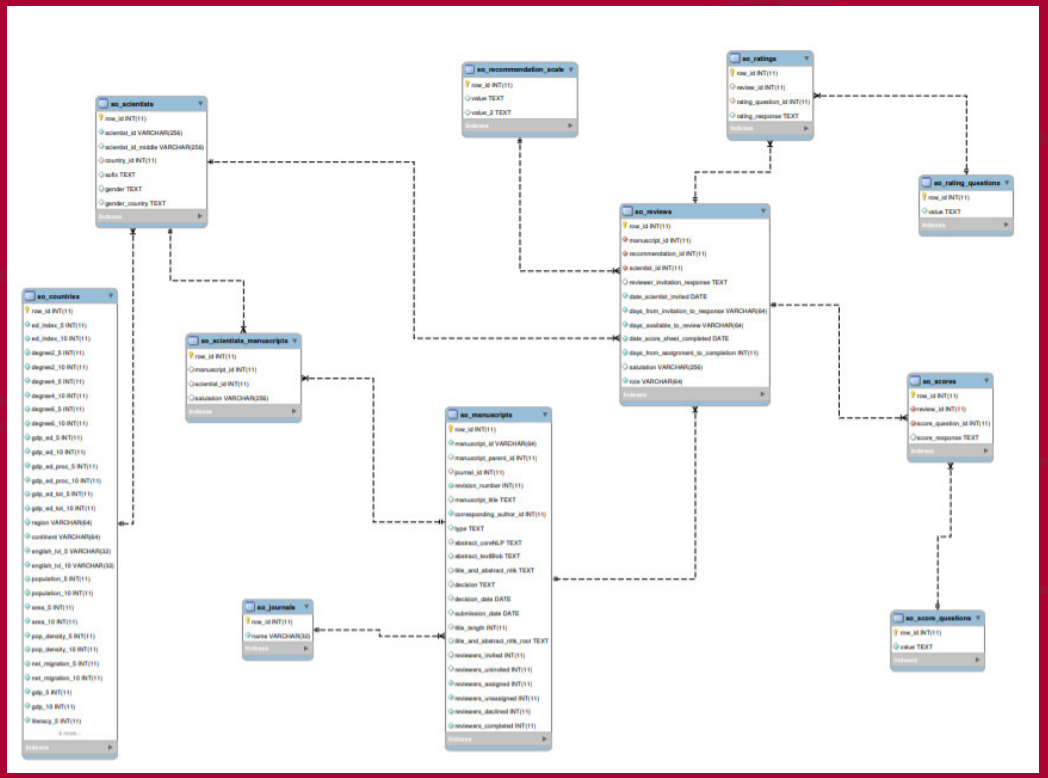
Different domains

Different management models

Different publication models

Gender and ethnicity by machine learning

Semantic analysis



A quantitative map of the field

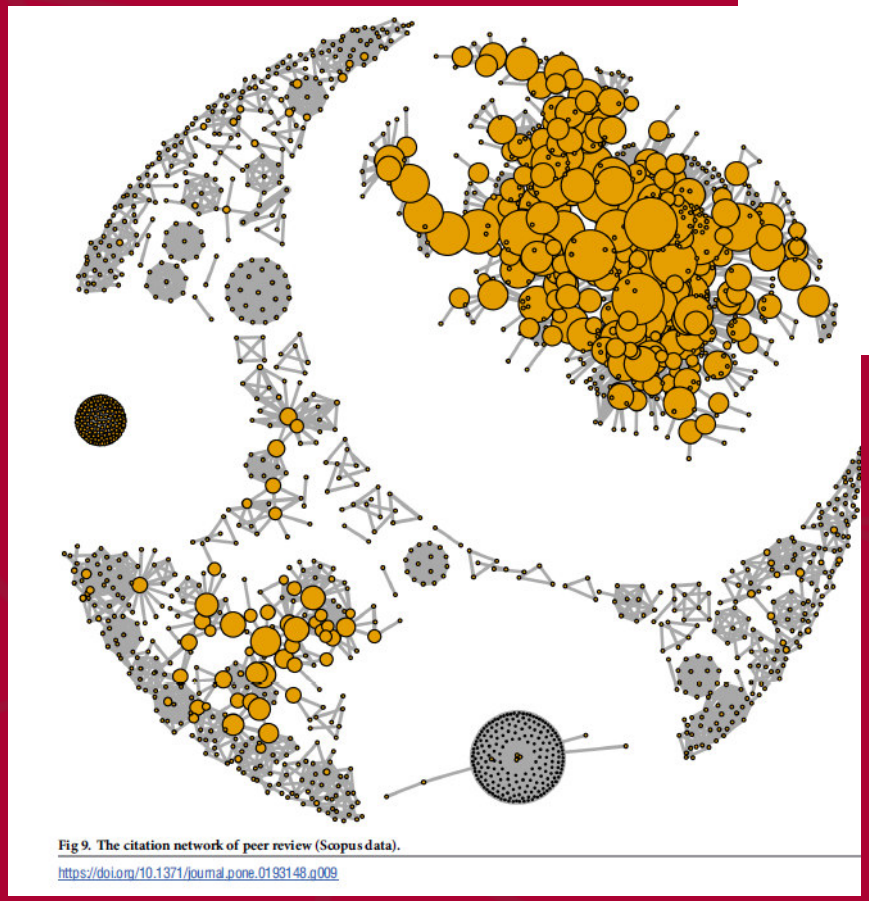


Fig 9. The citation network of peer review (Scopus data).

https://doi.org/10.1371/journal.pone.0193148.g009

PLOS ONE

RESEARCH ARTICLE

Fragments of peer review: A quantitative analysis of the literature (1969-2015)

Francisco Grimaldo[1]*, Ana Marušić[2], Flaminio Squazzoni[3]

1 Department of Computer Science, University of Valencia, Burjassot, Valencian Community, Spain,
2 Department of Research in Biomedicine and Health, University of Split, Split, Split-Dalmatia, Croatia,
3 Department of Economics and Management, University of Brescia, Brescia, Lombardy, Italy

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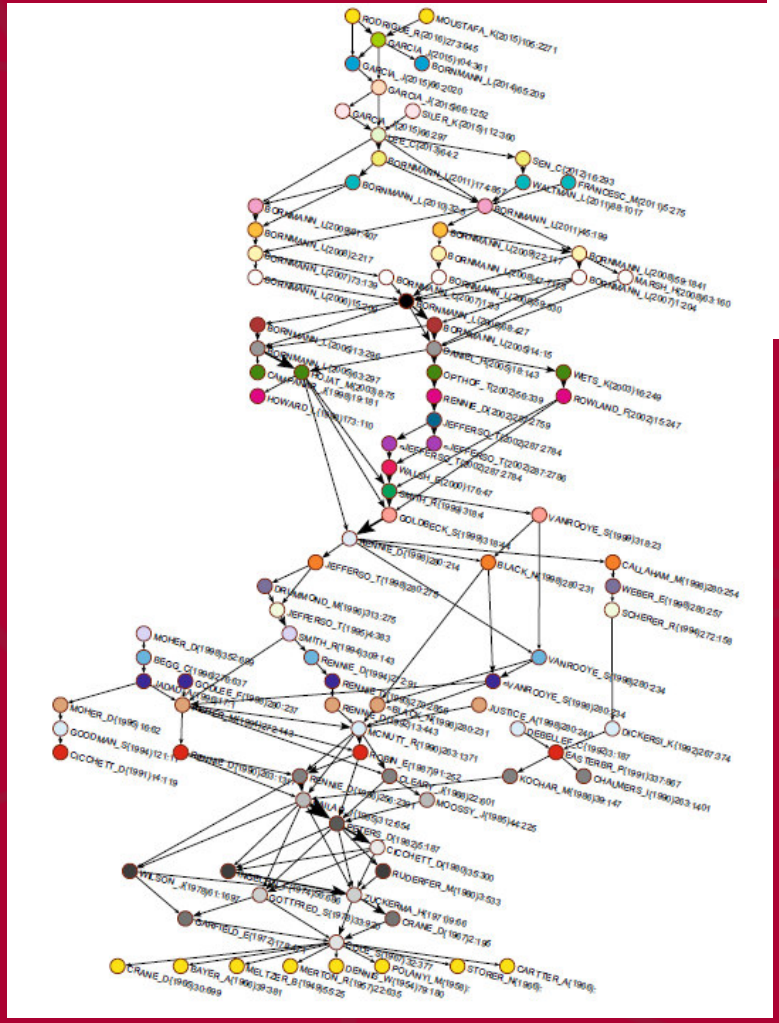
A network analysis



Scientometrics (2017) 113:503–532
DOI 10.1007/s11192-017-2522-8

CrossMark

The emergence of a field: a network analysis of research on peer review

Vladimir Batagelj[1,2] · Anuška Ferligoj[3] · Flaminio Squazzoni[4]

Example of PEERE research on journals
Bravo et al. 2018 Journal of Informetrics

Journal of Informetrics 12 (2017) 101–112

Contents lists available at ScienceDirect

Journal of Informetrics

journal homepage: www.elsevier.com/locate/joi

Regular article

Hidden connections: Network effects on editorial decisions in four computer science journals

Giangiacomo Bravo[a,b,*], Mike Farjam[a,b], Francisco Grimaldo Moreno[c], Aliaksandr Birukou[e], Flaminio Squazzoni[d]

[a] Department of Social Studies, Linnaeus University, Växjö, Sweden
[b] Linnaeus University Centre for Data Intensive Sciences & Applications, Växjö, Sweden

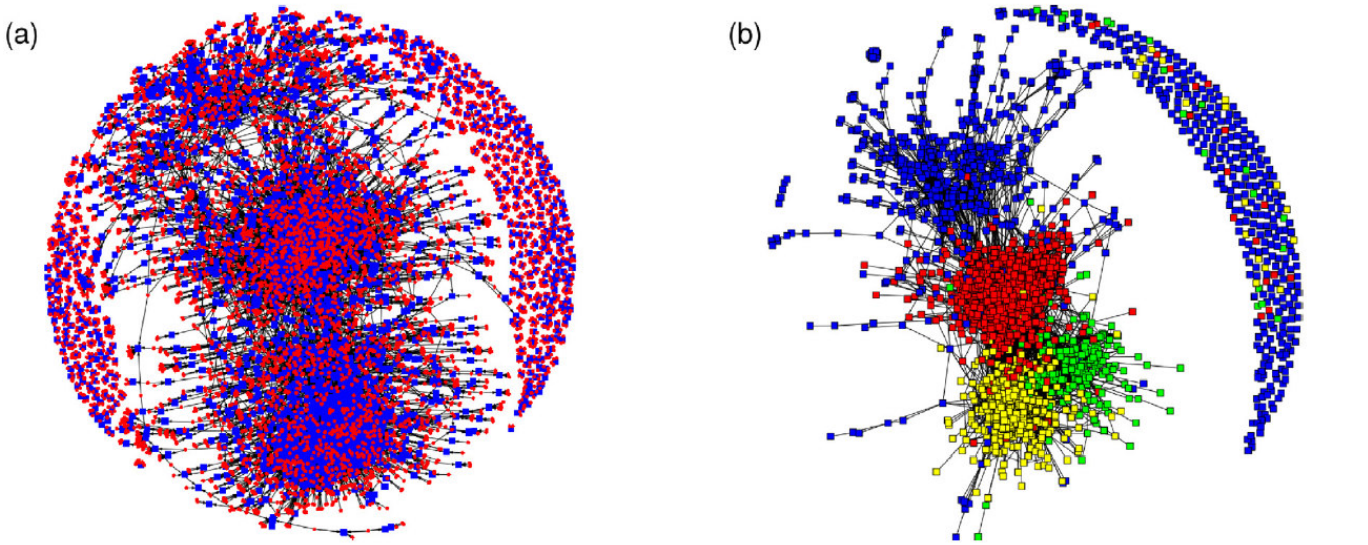
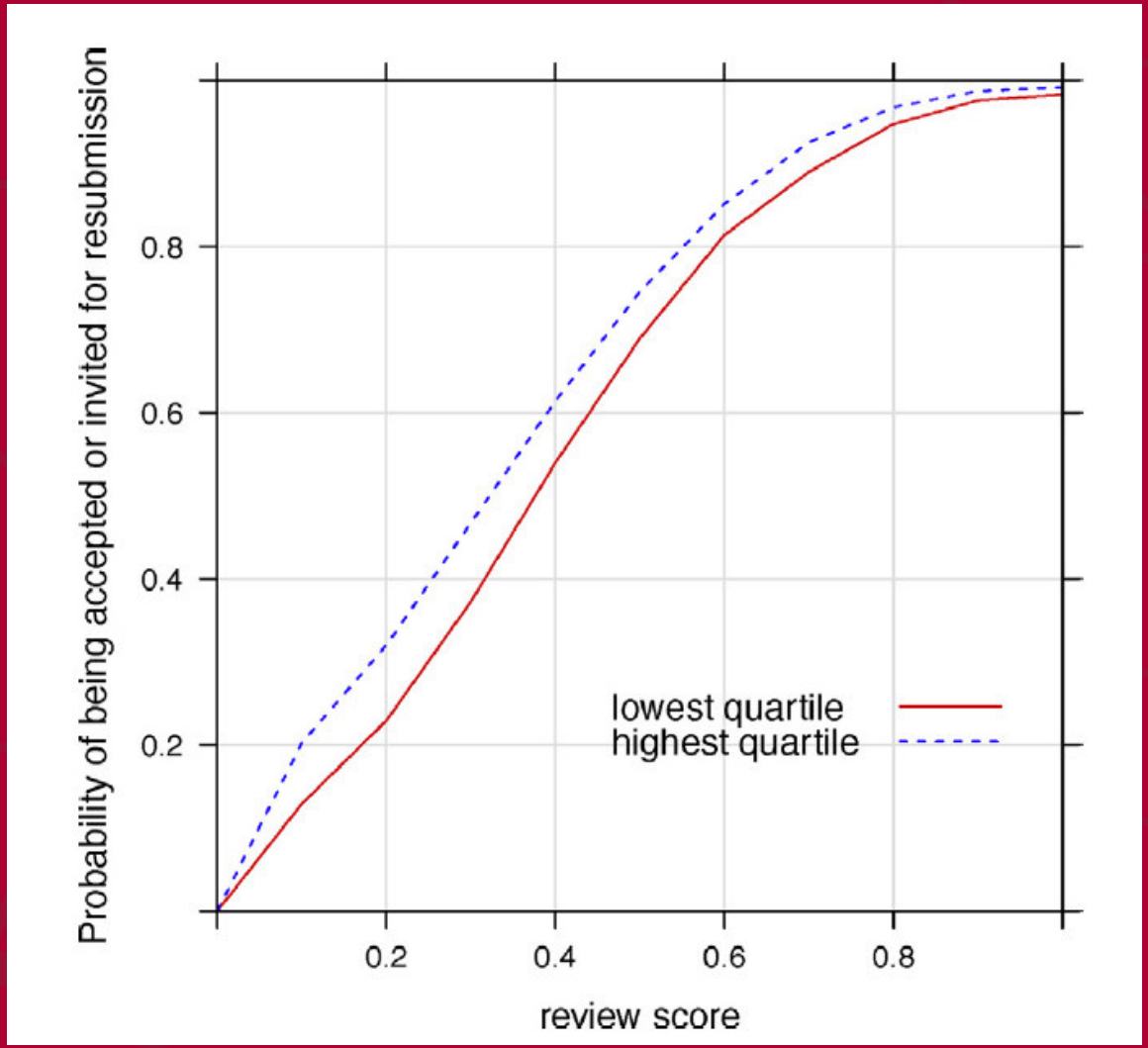


Fig. 2. Referee–paper network. (a) Complete affiliation network. Papers are drawn as blue squares, authors as red circles. (b) Bipartite projection on papers. Colours indicate journals in which papers were submitted. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of the article.)

Bravo et al. 2018 Journal of Informetrics



Does transparency come at a cost? The impact of publishing peer review reports on referee behavior in five scholarly journals

Giangiacomo Bravo[a], Francisco Grimaldo[b], Emilia López-Iñesta[c], Bahar Mehmani[d], and Flaminio Squazzoni[e]

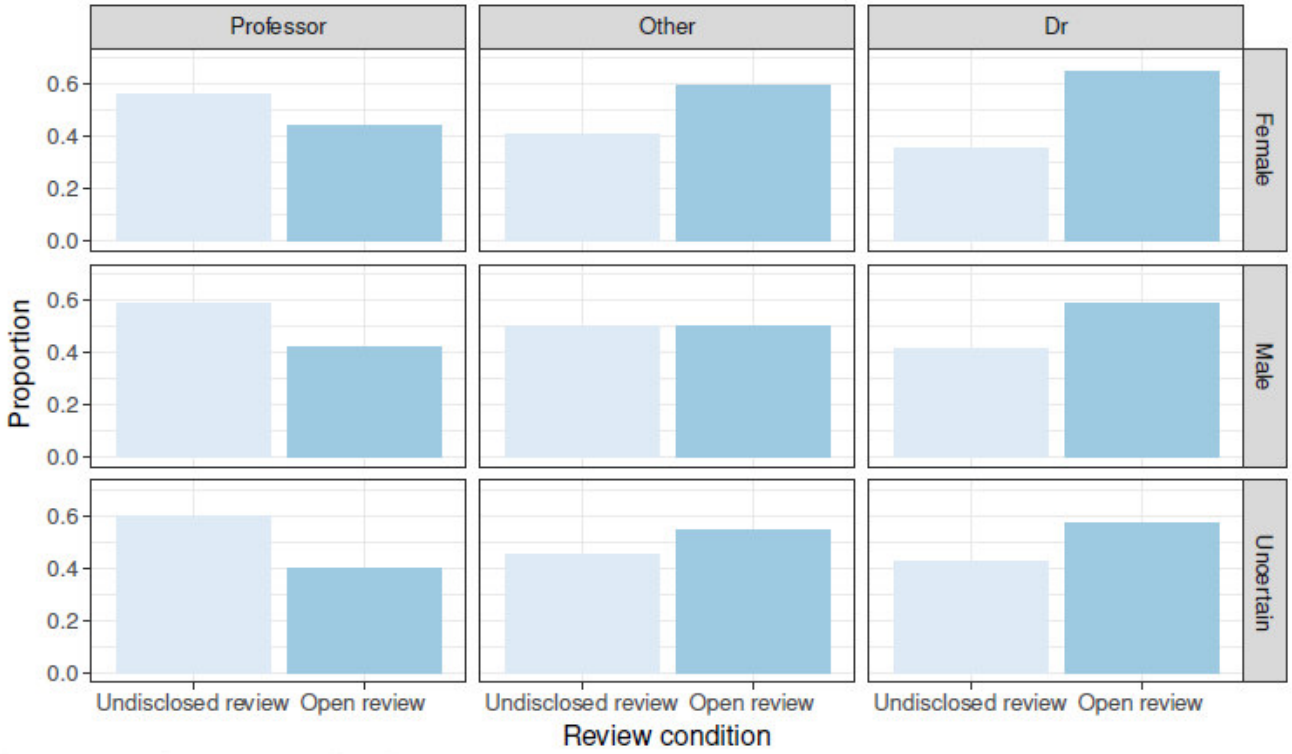


Fig. 3. Gender and status distribution of referees by review condition.

Does transparency come at a cost? The impact of publishing peer review reports on referee behavior in five scholarly journals

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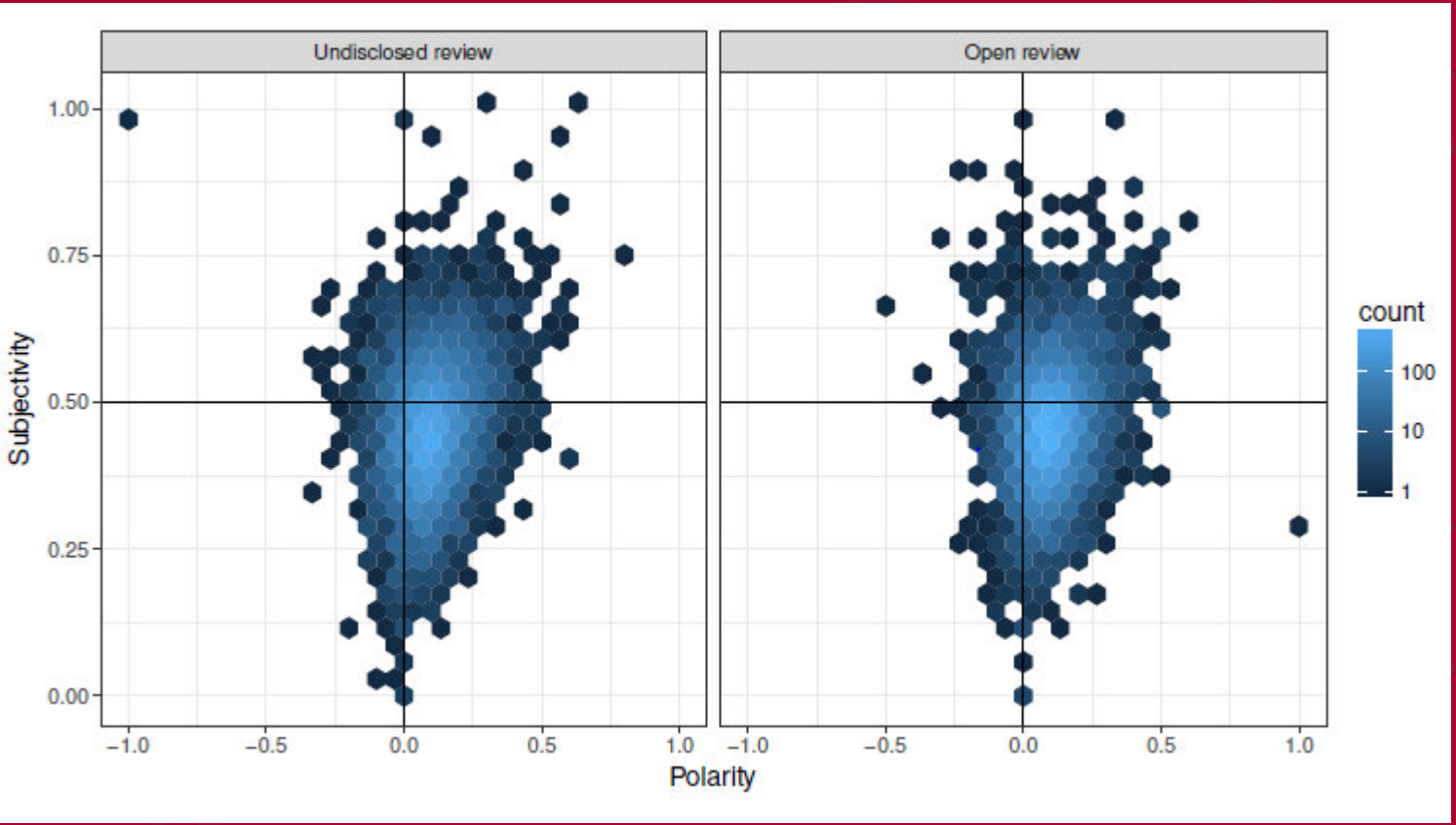


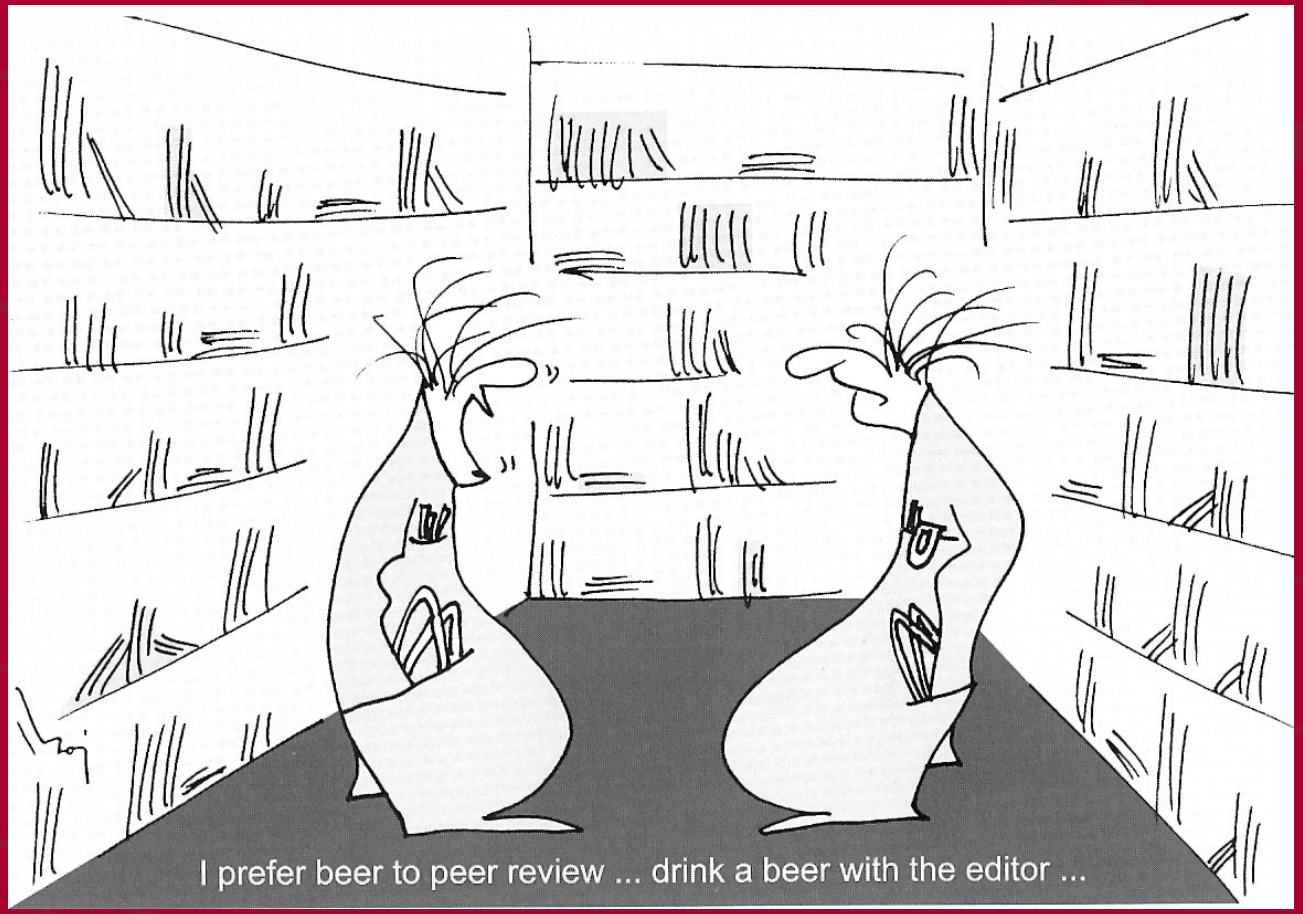
What is next?

Promoting data sharing across publishers, journals, and contexts

Showing benefits of evidence-based journal management attitudes

Identifying resources, schemes and actors that can help strenghten and expand the PEERE community

Defending and promoting a scientific, rationalistic, pragmatic culture of peer review across stakeholders and at the society at large

If you are interested, we are organizing a «PEERE after PEERE» meeting on 9-10 October 2018! Stay tuned on www.peere.org and @PEERe_REVIEW

What is next?