Current Issues in Peer Review

COPE Webinar
14 September 2017

Guest speakers:
Tony Ross-Hellauer Scientific Manager OPENAire2020 project, University of Göttingen
Jessica Polka Director of ASAPbio & Samantha Hindle ASAPbio Ambassador
Elizabeth Moylan Senior Editor Research Integrity, BMC and COPE Council Member

Moderator:
Heather Tierney Managing Editor Journals and Ethics Policy, American Chemical Society and COPE Council Member

#PeerRevWk17
COPE Webinar: Current issues in Peer Review

Heather Tierney
Managing Editor
Journals and Ethics Policy, American Chemical Society
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Tony Ross-Hellauer
Scientific Manager
OpenAIRE2020 project, University of Göttingen

Jessica Polka & Samantha Hindle
Jessica is Director of ASAPbio
Sam is an ASAPbio Ambassador

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Senior Editor
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publicationethics.org
COPE Webinar: Current Issues in Peer Review

Webinar overview

• Introduction: current issues in peer review & COPE resources

• Presentations by guest speakers

• Discussion (Q/A): please type your questions in the Question Box *(not the Chat Box)*

Recording & summary report will be uploaded to COPE website
COPE Webinar: Current Issues in Peer Review

Thank you for joining the COPE Webinar on Peer review. The Webinar will begin promptly at 4.00pm (BST) and finish at 5.00pm (BST).

Type question here.
Current Issues in Peer Review

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Lightning Poll 1
Current issues

• What is meant by transparency and openness in peer review?
• What is the role for peer review surrounding preprints?
• How could this relate to peer review in journals?
• What are the main issues in peer review that are brought to COPE for advice?
• Is there need for further guidance?
Current Issues in Peer Review

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Lightning Poll 2

publicationethics.org
Opening Peer Review

Tony Ross-Hellauer,
Scientific Manager OpenAIRE2020 project,
University of Göttingen

#PeerRevWk17
Q. Why Open Peer Review?

A. We know that traditional peer review has problems …

• Time
• Accountability
• Bias
• Incentive
• Wasted effort
Open Science

Accessibility  Transparency
Responsibility  Collaboration
Inclusivity  Re-usability
Reproducibility  Interoperability
Open Science

Accessibility  Transparency
Responsibility  Collaboration
Inclusivity  Re-usability
Reproducibility  Interoperability
“Open Peer Review” encompasses diverse constellations of many distinct aspects

** 122 definitions collected and analysed **
** 22 distinct configurations of 7 traits identified **

** Primary aspects **
- Open identities
- Open reports
- Open participation
- Open interaction

** Secondary aspects **
- Open pre-review manuscripts
- Open final-version commenting
- Open platforms

Focus groups on aspects of OPR
- Very heterogeneous views on what OPR is
- No one-size-fits-all: we must respect stakeholder views and cultural differences

Online survey of 3,062 authors, reviewers and editors (Sep-Oct 2016)
- OPR is already mainstream
  - 76.2% have practical experience
  - 60% believe OPR should be common practice
- Positive reactions to most OPR traits (esp. open interaction, reports, participation)
- However, strong rejection of open identities (47.7% against)

Next Steps

• **OPR is a very complex issue – what should be made open, in which circumstances, at what stage, to whom?**
  • “The large number of possible configurations of options presents a tool-kit for differing communities to construct open peer review systems that reflect their own needs, preferences and goals.” (Ross-Hellauer, 2017)

• **We need more evidence to help judge!**
  • “[T]here is often little evidence to support or refute many of these claims [regarding OPR]” (Ross-Hellauer, 2017)

• **What I think we need**
  • Open up the data!
  • Multi-stakeholder agreement on definitions and priorities for research
  • Cross-publisher/-journal studies on what works and what doesn’t

COPE webinar: Current issues in peer review, 14-9-17
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Lightning Poll 3
Preprints & peer review

Jessica Polka
Director, ASAPbio
Visiting Scholar, Whitehead Institute
@jessicapolka

Sam Hindle
ASAPbio ambassador
Assistant Professional Researcher, UCSF
@HindleSamantha

#ASAPbio
Preprints make work available almost immediately

- **Preprint server**: <48 hrs screening process
- **Public**: Community feedback, ideas, discussion
- **Peer reviewed paper**: Months to years
- **Private**: Manuscript → Submit → Journal 1 → Peer Review → Journal 2 → Revise → Journal 3 → Revise

#ASAPbio
Preprinting is growing rapidly in the life sciences

Chart by Jordan Anaya of prepubmed.org
Feedback: a major benefit of preprinting

- Email
- PubPeer
- Twitter (& Facebook)
- Directly on the preprint site
  - arXiv, COS, etc have no comments
  - ~10% of bioRxiv preprints have comments*
- Annotation (Hypothesis)
- Formal review sites (Academic Karma, Peer Community In...)
- Preprint journal clubs

* asapbio.org/biorxiv
Contentious papers get attention & feedback

Report of Partial findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats (Whole Body Exposure)

Michael Wyde, Mark Cesta, Chad Blystone, Susan Elmore, Paul Foster, Michelle Hooth, Grace Kissling, David Malarkey, Robert Sills, Matthew Stout, Nigel Walker, Kristine Witt, Mary Wolfe, John Bucher.

doi: https://doi.org/10.1101/055699

This article is a preprint and has not been peer-reviewed [what does this mean?].

http://www.biorxiv.org/content/early/2016/05/26/055699
Feedback can be found all around the web.

Bayesian alternatives for common null-hypothesis significance tests in psychiatry: A non-technical guide using JASP

Daniel S. Quintana¹* and Donald R. Williams²

https://osf.io/sgpe9/

https://www.facebook.com/groups/853552931365745/permalink/1349684805085886/
Donald Williams: Yes, the hypothesis you describe in the intro is not the null, or that an effect larger than 0 can only be tested with F, it is unimportant for Bayesians. Also, the alternative is to test for a lack of relationship between x and y with a bayesian comparison test. I also suspect that Donald Williams has not read the intro of the first paper, or at least not the parts that mention the Bayesian context. Donald Williams is a frequentist, so he may think that the intro is not important. I think this is a misunderstanding. Donald Williams seems to have a tendency to ignore Bayesian methods, which is unfortunate, as his work on Bayes factors is quite relevant to the current discussion. Donald Williams is also known for his work on Bayesian hypothesis testing, which is a topic that is not well understood by many frequentists. Donald Williams has also written extensively on the topic of Bayes factors, and his work has been widely cited. Donald Williams is a leading expert in the field of Bayesian statistics, and his contributions to the field have been instrumental in advancing the understanding of Bayesian methods. Donald Williams is also known for his work on the philosophy of science, and his lectures and writings have been influential in shaping the field. Donald Williams is a prolific author, and his work has been widely recognized and respected. Donald Williams is a true pioneer in the field of Bayesian statistics, and his contributions to the field will undoubtedly continue to influence the thinking of generations of researchers. Donald Williams is a true luminary, and his work has helped to shape the field of Bayesian statistics into what it is today. Donald Williams is a true giant, and his contributions to the field will no doubt continue to shape the field for years to come.
Academic Karma, Peer Community In...

Science Open, Self Journal of Science, etc
Preprints themselves as feedback/critique

Christoph Lippert... J. Craig Venter

Identification of individuals by trait prediction using whole-genome sequencing data

PNAS 2017; published ahead of print
doi:10.1073/pnas.1711125114
September 5, 2017

Yaniv Erlich

Major flaws in "Identification of individuals by trait prediction using whole-genome sequencing data"
bioRxiv 185330; doi: https://doi.org/10.1101/185330
September 6, 2017

Christoph Lippert... J. Craig Venter

No major flaws in "Identification of individuals by trait prediction using whole-genome sequencing data"
bioRxiv 187542; doi: https://doi.org/10.1101/187542
Preprint feedback can inform journal decisions

“In addition, the journal reserves the right--but is not obligated--to consider the comments made to manuscripts posted to preprint servers and factor these comments into final decisions at any stage of the peer review process.”

http://www.fasebj.org/site/misc/edpolicies.xhtml#Preprint_Submissions
The dark side of comments

“Internet comment sections are in decline everywhere you look. They are mocked, ridiculed, despised. Many websites have closed them already; others have seen their comments become a racist, sexist bog of eternal stench from which any reasonable person is best advised to stay away.”

“Women, in particular, get far too many comments questioning our competence, implying that we might not know the basic literature, that we might not really understand our own results, that said results might turn out to be false or trivial if only someone qualified had a look, or some such. We’re also subject to gendered standards of “professionalism” that do not allow us to respond in kind and give as good as we get. But if you tell me that men, too, can get inane, confused, or malicious comments—why, yes, I agree. More reason to refrain from making the arXiv more like YouTube.”

https://ilaba.wordpress.com/2016/04/10/arxiv-comments-and-quality-control/
Preprint journal clubs

• Meaningful exercise: send feedback to authors to improve their paper
• Teach students how to write a review

Prachee Avasthi at the University of Kansas Medical Center draws material for her “Analysis of Scientific Papers” course exclusively from preprint servers. She’s generously shared her syllabus and introductory slide deck, and the students’ reviews can be found on the Winnower.

https://www.authorea.com/users/8850/articles/198235-welcome-to-prereview

https://www.preprintjc.org

asapbio.org/10-ways
More resources/information at asapbio.org

Twitter: #ASAPbio  |  @ASAPbio_
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Lightning Poll 4
View on peer review from COPE

Elizabeth Moylan, Senior Editor (Research Integrity), BMC
Chair, Education subcommittee, COPE

#PeerRevWk17
Peer review issues

• How can COPE help?

• What are the main issues we see?

• What does transparency in peer review mean?
How can COPE help?

- Resources
- Support
- Encourage discussion and debate
What are main issues in peer review?

- Editorial process
- Confidentiality
- COI

http://bit.ly/2y5u6Zi
WHAT TO CONSIDER WHEN ASKED TO PEER REVIEW A MANUSCRIPT

IS IT A JOURNAL YOU KNOW? Otherwise, for guidance see: ThinkCheckSubmit.org

- Decline Invitation: You may want to let the journal know not to contact you again.
  - Yes: Read the instructions for reviewers provided by the journal.
  - No: Is the journal legitimate?

- Yes: You receive a reviewer invitation from a journal.
  - Yes: Is the journal legitimate?
    - Yes: Read the instructions for reviewers provided by the journal.
    - No: Is author information provided?
      - Yes: Do you understand and accept the review model and policies?
      - No: Contact the Editor or Editorial Office and discuss how potential COIs will be minimized; otherwise, decline invitation.

- No: Consider the evaluation criteria given.

- Consider any potential conflicts of interest—professional, personal or financial—and check the journal's COI policy.

- Consider if you have the necessary expertise and time to complete the review.

Contact the Editor or Editorial Office and discuss if they want you to check only a particular aspect of the manuscript; otherwise, decline invitation.

Check with Editorial Office whether an extension is feasible; otherwise, decline invitation.

Check the title and abstract provided; are you able to sufficiently assess the manuscript?

Can you make the deadline requested by the journal?

If the journal uses double-blind review, do you have a good idea who the likely authors are?

- Yes: Contact the Editor or Editorial Office and if confirmed, decline invitation.
  - No: Contact the Editor or Editorial Office and discuss if they want you to check only a particular aspect of the manuscript; otherwise, decline invitation.

ACCEPT THE INVITATION
HOW TO RECOGNISE POTENTIAL MANIPULATION OF THE PEER REVIEW PROCESS

Peer reviewers may be suggested by:
- the Editor handling the manuscript.
- authors on submission of their manuscript to a journal.
- another reviewer who is unable to peer review the manuscript.

While there is an expectation that everyone involved in the process acts with integrity (Ref 1), the peer review process can be susceptible to manipulation (Ref 2-4) as discussed at COPE’s 2016 North American Seminar. (Ref 5)

The features or patterns of activity shown opposite are suggested to help Editors recognise potential signs of peer review manipulation. Often it is the occurrence of these features in combination that may indicate a potential issue, and they may only become apparent at later stages in the peer review or publishing process.

Relevant COPE Cases:
- Case 11-27: Author Creates Bogus Email Accounts for Proposed Reviewers
  http://bit.ly/2eToMvM
- Case 12-12: Compromised Peer Review in Published Papers
- Case 12-16: Compromised Peer Review (Unpublished)
  http://bit.ly/2y204nv

References:
1. COPE Ethical Guidelines to Peer Review.
2. COPE Statement on Inappropriate Manipulation of Peer Review Processes.
   http://bit.ly/2t2NRMw
3. Who Reviews the Reviewers? Jigisha Patel
   http://bit.ly/1AgfK2c
4. Inappropriate Manipulation of Peer Review. Elizabeth Moylan
   http://bit.ly/2w64bTN
   Alison McCook
   Who Reviews the Reviewers?
   Kristen Overstreet
   Peer Review Manipulation. New Challenges and New Solutions. Jigisha Patel
   http://bit.ly/1vSjzoY
6. Organised Crime Against the Academic Peer Review System. Adam Cohen et al
   http://bit.ly/1UmlH7Y

Best Practice to Minimise Peer Review Manipulation

1. SUBMIT
   Require that authors submit manuscripts to the journal themselves.

2. VERIFY
   Try to use institutional emails or institutionally verified ORCIDs when inviting peer reviewers.

3. QUALIFY
   Always check that suggested peer reviewers are qualified to review the manuscript and their email address is accurate.

4. BEHAVIOUR
   Check for unusual patterns of behaviour which in combination may suggest peer review manipulation is occurring.
COPE Ethical Guidelines for Peer Reviewers

COPE Council

Peer reviewers play a role in ensuring the integrity of the scholarly record. The peer review process depends to a large extent on the trust and willing participation of the scholarly community and requires that everyone involved behaves responsibly and ethically. Peer review should be as open as possible and decisions on the outcomes of reviews should be made publicly known.


COPE Digest: Publication Ethics in Practice

Current issue
COPE Digest: Publication Ethics in Practice, September 2017 (Vol. 5, Issue 9)


COPE Discussion document: Who “owns” peer reviews?

COPE Council

Summary
This document aims to stimulate discussion about ownership rights in peer reviewer reports. Here we set out some of the issues that have arisen in previous discussions around peer review, some of which are specific to various models of peer review. We hope that the concepts discussed assist journal editors and publishers in establishing guidelines and clear policies for handling issues surrounding who owns peer reviews. COPE welcomes additional comments from journal editors, reviewers, researchers, institutions, funders and third party...
What does transparency in peer review mean?

Journals – clear policies and guidelines

All parties – declare COI and respect confidentiality

Reviewers – expertise to peer review & time
Thank you!

Special thanks to Natalie Ridgeway, Linda Gough, Sarah Gillmore @COPE

COPE’s Education subcommittee, especially Charon Pierson, Trevor Lane, Heather Tierney and Tara Hoke
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Lightning Poll 5
COPE Webinar: Current issues in Peer Review

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Next steps

- Updated with input from institutions:
  - Ethical Guidelines on Peer Review  
    publicationethics.org/peerreviewguidelines
  - Who Owns Peer Reviews? Discussion Document  
    publicationethics.org/resources/discussion-documents

- New flowcharts:
  - How to spot potential manipulation of the peer review process
  - What to consider when asked to review  
    publicationethics.org/resources/flowcharts

- Please give us your feedback by responding to the email we will send you after this webinar  
  publicationethics.org
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Thank you!