Peer review manipulation. New challenges and new solutions

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- Provide advice to editors, peer reviewers and authors on all aspects of research and publication ethics
- Define and maintain BioMed Central’s editorial policies

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Overview

• Case of peer review manipulation at BioMed Central.

• Challenges of detecting and preventing peer review manipulation.
What is peer review manipulation?

Any attempt to prevent or inappropriately influence the independent assessment of a piece of scientific work by a peer.
Peer review manipulation

• Previous isolated cases of peer review manipulation

“The peer-review process for all of the above articles was found to have been compromised and inappropriately influenced by the corresponding author,....”

*Journal of Enzyme Inhibition and Medicinal Chemistry, 2010 27:5, 758-758.*

“The following articles are retracted because after thorough investigation evidence points towards them having at least one author or being reviewed by at least one reviewer who has been implicated in the peer review ring and/or citation ring.”

*Journal of Vibration and Control July 2014 vol. 20 no. 10 1601-1604*
BioMed Central case – what we found

Discrepancy between a peer reviewer name and associated email address.

Peer reviewer user record

Other manuscripts with same peer reviewer email and other suspicious looking emails

Peer reviewer user records

Further manuscripts and emails

List of emails

Features

• Unconnected manuscripts.
• Unconnected authors.
• Same reviewers suggested by the authors.
• Credible reviewer reports.
• Similar structure of reviewer reports.
• Sometimes names of real researchers but with unusual email addresses.
• Sometimes no publication record.
• The pattern across unrelated manuscripts and journals.
Key conclusions

• During standard checks at manuscript level, the problem was spotted.

• Standard checks alone did not reveal scale of the problem.

• It was the pattern across different manuscripts and journals that caused suspicion.

• The findings suggested that it was not the authors or peer reviewers who were manipulating the publication process, but a third party – most likely an editing service.
Immediate steps

• Switched off the ability for authors to suggest reviewers on our submission system.

• Meeting with other publishers and COPE.
  
  ▪ Shared information about our findings.
  ▪ Unclear of level of author awareness of peer review manipulation.
  ▪ Unclear who entered proposed reviewer names/details.
  ▪ **Confidence in the peer review process of these articles was undermined.**

  Decision made to retract the articles.
  Contact authors and offer opportunity for explanation.
  Inform institutions of our intention to retract.
Immediate steps

COPE statement on inappropriate manipulation of peer review processes

The Committee on Publication Ethics (COPE) has become aware of systematic, inappropriate attempts to manipulate the peer review processes of several journals across different publishers. These manipulations appear to have been orchestrated by a number of third party agencies offering services to authors. This statement is issued on behalf of COPE after consultation with a variety of publishers to underscore the seriousness with which we take these issues and our determination to address them.

While there are a number of well-established reputable agencies offering manuscript-preparation services to authors, investigations at several journals suggest that some agencies are selling services, ranging from authorship of pre-written manuscripts to providing fabricated contact details for peer reviewers during the submission process and then supplying reviews from these fabricated addresses. Some of these peer reviewer accounts have the names of seemingly real researchers but with email addresses that differ from those from their institutions or associated with their previous publications, others appear to be completely fictitious.

We are unclear how far authors of the submitted manuscripts are aware that the reviewer names and email addresses provided by these agencies are fraudulent. However, given the seriousness and potential scale of the investigation findings, we believe that the scientific integrity of manuscripts submitted via these agencies is significantly undermined.
Next steps

• Further manual searches conducted.

  43 published articles identified.

• Contacted authors.
  Many said they were unaware.
  Some said they had used an agency.

• Contacted institutions to ask them to investigate and inform them of our intention to retract.
Retraction notice

The Publisher and Editor regretfully retract this article [1] because the peer-review process was inappropriately influenced and compromised. As a result, the scientific integrity of the article cannot be guaranteed. A systematic and detailed investigation suggests that a third party was involved in supplying fabricated details of potential peer reviewers for a large number of manuscripts submitted to different journals. In accordance with recommendations from COPE we have retracted all affected published articles, including this one. It was not possible to determine beyond doubt that the authors of this particular article were aware of any third party attempts to manipulate peer review of their manuscript.

It was unknown how far the authors were aware that peer review manipulation had occurred.
Further steps

• Permanently removed the functionality for authors to suggest reviewers during submission. Authors can still suggest reviewers via cover letter.

• Raised awareness
  • amongst external editors
  • amongst junior researchers
  • amongst funders

• Refined our journal audits to actively look at email addresses and patterns.
Further steps

An example of a slide from an author workshop

How to avoid the pitfalls

• Never hand over total control of your manuscript to anybody who is not an author.

• If you want to use an agency to improve the manuscript, tell the editor that they are acting on your behalf when you submit your manuscript.

• Remember that you, the authors, will still be responsible for anything the agency does.
Updates to retractions

Retraction

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Update posted {4th April, 2016}

BioMed Central has been informed by the authors’ institution that it has conducted an investigation that found that the authors of this article [1] authorized third-parties to submit the manuscript on their behalf, but did not sufficiently supervise or manage the submission process. The investigation concluded that this behavior constituted academic misconduct.
Not an isolated case

64 more papers retracted for fake reviews, this time from Springer journals

Seven papers flagged earlier for fake reviews now retracted by Elsevier

Elsevier has now retracted the seven papers it flagged in October as being affected by fake peer reviews.

17 retractions from SAGE journals bring total fake peer review count to 250

On Monday, we reported on 64 new retractions from Springer journals resulting from fake peer reviews. Yesterday, SAGE — which retracted 60 papers for the same reason just over a year ago — added 17 additional retractions to their list.

The articles were published in five different journals, and one retraction involved authorship fraud in addition to peer review fraud, according to a SAGE spokesperson:
Organised crime against the academic peer review system

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Peer review manipulation is an industry-wide problem

The peer review process is based on trust. Who is responsible for maintaining its integrity?

• Researchers
• Editors
• Publishers
• Institutions/employers
• Funders
How do we detect and prevent peer review manipulation?

Challenges

Researchers and authors:

- are they being exploited?
- what pressures are they under to publish?

Editors:

- how realistic is it to expect editors of individual journals to detect peer review manipulation?
How do we detect and prevent peer review manipulation?

Challenges

Publishers:

− can they overcome competitiveness and work together?

Institutions/employers/funders:

− can they find alternatives ways to measure success and remove the pressure to publish?
How do we detect and prevent peer review manipulation?

The issues and challenges are complicated.

What can we do?

- Raise awareness – e.g. run workshops, share findings.
- Use technology – text mining? Pattern recognition?
- Be prepared to actively investigate - e.g. audits
- Encourage authors and reviewers to protect their identities – ORCID?
- Collaborate – talk to institutions and funders?
How do we detect and prevent peer review manipulation?

What about innovation?

- Peer review innovation was originally aimed at increasing efficiency
  Focus now on preventing manipulation?

- Peer review training and accreditation?
Summary

• Peer review manipulation is becoming more sophisticated.
• It is occurring across journals and publishers.
• It is challenging to address.
• Some practical steps are possible now.
• Innovations in peer review might help.

Collaboration and cooperation is key.
More information

BioMed Central blogs:

- **Inappropriate manipulation of peer review** March 2015 http://bit.ly/1EaLkEx
- **Update on peer review manipulation** December 2014 http://bit.ly/1FsTM1p
- **Who reviews the reviewers?** November 2014 http://bit.ly/1AgfKDC

COPE

- **COPE statement on inappropriate manipulation of peer review** December 2014 http://bit.ly/1b1aBde
Thank you

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