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Ethical aspects of peer review procedure in scientific publication

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Peer review and peer-reviewed journals

ICMJE URM (2013): **Peer review is the critical assessment of manuscripts submitted to journals by experts who are usually not part of the editorial staff.** Because unbiased, independent, critical assessment is an intrinsic part of all scholarly work, including scientific research, peer review is an important extension of the scientific process. ...

Peer review **often** helps authors and editors improve the quality of reporting.

The Washington Post boosted recently a scandal with peer review

27 March 2015 – BioMedCentral (a publisher of open access journals/papers) has retracted 43 papers because of “fabricated” peer reviews amid signs of a broader fake peer review racket affecting many more publications.

The Washington Post boosted a scandal with peer review 2

10 July 2014 – The Journal of Vibration and Control retracted 60 articles at once.

The reason for the mass retraction is mind-blowing: A “peer review and citation ring” was apparently rigging the review process to get articles published.

You’ve heard of prostitution rings, gambling rings and extortion rings. Now there’s a “peer review ring.”

Some basic remarks by Richard Smith (2006)

- Peer review is at the heart of the processes of not just medical journals but of all of science.
- It is the method by which grants are allocated, papers published, academics promoted, and Nobel prizes won.

AS: a REC with its activities can also be taken as a form of peer review

- Yet it is hard to define. It has until recently been unstudied. And its defects are easier to identify than its attributes. Yet it shows no sign of going away.
- Famously, it is compared with democracy: a system full of problems but the least worst we have.

Retraction Watch – a watchdog of publication ethics

- A blog format communication channel,
<http://retractionwatch.com/> ;
- Launched in 2010 as an output of the
Center for Scientific Integrity;
- The blog is using all main forms of our
everyday internet communication.

COPE statement on inappropriate manipulation of peer review processes (2015)

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. ...

Development of research media and channels of knowledge

- In 20th century the main form to communicate research results was a research article in a scientific journal;
- Nowadays there are much more opportunities to communicate different aspects of scientific process – online platforms, databases, etc;

WMA Helsinki Declaration 2013

36. Researchers, authors, sponsors, editors and publishers all have ethical obligations with regard to the publication and dissemination of the results of research.

Researchers have a duty to make publicly available the results of their research on human subjects and are accountable for the completeness and accuracy of their reports. All parties should adhere to accepted guidelines for ethical reporting.

Negative and inconclusive as well as positive results must be published or otherwise made publicly available.

Sources of funding, institutional affiliations and conflicts of interest must be declared in the publication.

Reports of research not in accordance with the principles of this Declaration should not be accepted for publication.

Big variety of forms of misconduct in the process of publication

- Different times have different leading issues in publication ethics;
- Classical issues of publication ethics (different forms of fraud and problems with authorship) are accompanied now by issues of conflict of interest, editorial process and postpublication reflection which all have also connection to peer review activities.

Different types of review

- Review can be internal or external to journal;
- Review process can be open or more hidden (single or double blinded); every type of review has its own strong and weak sides, it may vary from full transparency to complete secret.

Selection of reviewers

- External reviewers can be members of journal's editorial board or nominated *ad hoc* by editor;
- After proposal a potential reviewer must critically estimate his/her competence and time to complete review in time;
- In case of **conflict of interest** one should not accept the proposal to be a reviewer. In this case is necessary to inform the editor about the conflict of interest as soon as possible and suggest another competent candidate to this role.

Defects of peer review (R. Smith, 2006)

- Slow and expensive
- Inconsistent
- Bias
- Abuse of peer review

Ways to improve the situation: blinding reviewers to the identity of authors; opening up the peer review process; training of reviewers.

COPE Ethical Guidelines for Peer Reviewers (2013)

Structure of the document

- Basic principles
- Issues on being approached to review
- Issues during review
- Issues when preparing the report
- Expectations after review

COPE Ethical Guidelines for Peer Reviewers (2013) BASIC PRINCIPLES (9 items)

Peer reviewers should:

- only agree to review manuscripts for which they have the subject expertise required to carry out a proper assessment and which they can assess in a timely manner;
- respect the confidentiality of peer review and not reveal any details of a manuscript or its review, during or after the peer-review process, beyond those that are released by the journal;

COPE Ethical Guidelines for Peer Reviewers (2013) BASIC PRINCIPLES (9 items)

Peer reviewers should:

- not use information obtained during the peer-review process for their own or any other person's or organization's advantage, or to disadvantage or discredit others
- declare all potential conflicting interests, seeking advice from the journal if they are unsure whether something constitutes a relevant interest

COPE Ethical Guidelines for Peer Reviewers (2013) BASIC PRINCIPLES (9 items)

Peer reviewers should:

- not allow their reviews to be influenced by the origins of a manuscript, by the nationality, religious or political beliefs, gender or other characteristics of the authors, or by commercial considerations;
- be objective and constructive in their reviews, refraining from being hostile or inflammatory and from making libellous or derogatory personal comments

COPE Ethical Guidelines for Peer Reviewers (2013) BASIC PRINCIPLES (9 items)

Peer reviewers should:

- acknowledge that peer review is largely a reciprocal endeavour and undertake to carry out their fair share of reviewing and in a timely manner;
- provide journals with personal and professional information that is accurate and a true representation of their expertise;

COPE Ethical Guidelines for Peer Reviewers (2013) BASIC PRINCIPLES (9 items)

Peer reviewers should:

- recognize that impersonation of another individual during the review process is considered serious misconduct

COPE Ethical Guidelines for Peer Reviewers (2013) ON BEING APPROACHED TO REVIEW

Peer reviewers should:

- follow journals' policies on situations they consider to represent a conflict to reviewing. If no guidance is provided, **they should inform the journal if: they work at the same institution as any of the authors (or will be joining that institution or are applying for a job there); they are or have been recent (e.g. within the past 3 years) mentors, mentees, close collaborators or joint grant holders; they have a close personal relationship with any of the authors.**

COPE Ethical Guidelines for Peer Reviewers (2013) DURING REVIEW

Peer reviewers should:

- notify the journal immediately if they come across any irregularities, have **concerns about ethical aspects of the work**, are aware of substantial similarity between the manuscript and a concurrent submission to another journal or a published article, or **suspect that misconduct may have occurred during either the research or the writing and submission of the manuscript**; reviewers should, however, **keep their concerns confidential and not personally investigate further unless the journal asks for further information or advice.**

COPE Ethical Guidelines for Peer Reviewers (2013) EXPECTATIONS POST REVIEW

Peer reviewers should:

- continue to keep details of the manuscript and its review confidential.
- respond promptly if contacted by a journal about matters related to their review of a manuscript and provide the information required.

COPE Ethical Guidelines for Peer Reviewers (2013)

EXPECTATIONS POST REVIEW

Peer reviewers should:

- contact the journal if anything relevant comes to light after they have submitted their review that might affect their original feedback and recommendations.
- read the reviews from the other reviewers, if these are provided by the journal, to improve their own understanding of the topic or the decision reached.

COPE Ethical Guidelines for Peer Reviewers (2013) EXPECTATIONS POST REVIEW

Peer reviewers should:

- try to accommodate requests from journals to review revisions or resubmissions of manuscripts they have reviewed.

Summary

- Peer review is an important cognitive mechanism in modern science to turn words/behavior into knowledge;
- Reviewers are part of ethical evaluation framework of the study before its publication;
- Peer review is by itself a very demanding personal activity both from scientific and ethical point of view;
- Reviewers' self-regulation doesn't seem work well enough also in this area.

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