Opening up the review process: alternative peer review tools in scholarly publishing
Our mission

Opening UP new methods, indicators and tools for peer review, dissemination of research results, and impact measurement within the Open Science ecosystem.

Topics

Methodology

Use cases

within the Open Science ecosystem.
Target communities
Peer review landscape scan

- Analyze methods and tools, traditional but also innovative and emerging ones,
- define roles and processes in non-traditional peer review,
- develop a coherent, practical and validated framework for open peer review.
What is Open Peer Review?
Established review system

Quality control
Checking validity
Assessing originality and significance

Lengthy
Costly
Bias
Lack of standards
Abuse

Transparency
Motivation
Democratization

Digital gap
Bias
Problems of open ID

SWOT
Open peer review: defining terms

Controversial concept: being used for several fairly different models of peer review.

Degree of openness: a peer review continuum on a scale from closed to open

Paglione 2015
Defining open peer review: attributes

- **Open identity**: Authors and reviewers are aware of each other's identity.
- **Open report**: Review reports are published alongside the relevant article.
- **Open interaction**: Direct reciprocal discussion between author(s) and reviewers, between reviewers.
- **Open participation**: Wider community to contribute to the review process.
- **Openness in time**: Review process does not follow the standard temporal order of classical peer review (submission, review, publication).
- **Open platform**: Review process is de-coupled from publishing: facilitated by a different organizational entity than the venue of publication.
Alternative review services

- Authorea
- F1000Research
- Peerage of Science
- Rubriq by Research Square
- scienceOPEN.com
- eLIFE
- Copernicus Publications
- Frontiers
- Publons
- OpenUP
- Peerage of Science
- Rubriq by Research Square
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- OpenUP

- Publishers Publishing platforms
- Independent review services
- Repository based review platforms and tools
- Review applications
Alternative review methods and tools

- Open peer review
- Peer/public commentary
- Post-publication peer review
- Decoupled peer review
- Portable/cascading peer review
- Machine-aided review

Transparency
Fast dissemination of publications
Standardization
Openness in time
Incentives/motivation for review
OPR as game changer: Redefining scholarly communication
Changing roles

Role of peer review
Functions: critical review/checking the soundness of research
assessing originality, novelty, interest

Changing role of editors
Tasks: first scan, finding reviewers, reviewing, collaboration with authors/other editors

Growing responsibility of authors
Tasks: finding reviewers, cooperation with editors/reviewers, revisions based on community comments

Involvement of peers
Role of the community/peers: who is the peer?
Growing demands

1. Transparency

![Graph showing attitudes towards statements]

- Increased interaction between authors & reviewers will result in better publications.
- Manuscripts should be made openly accessible before peer review begins.
- Blog articles, online journal clubs, and social media commentary on final-version publications are part of peer review.

![Bar charts showing responses to statements]

- **Statements Open Reports**
  - Published review reports provide useful information for the reader (63,61)
  - Publishing review reports will make reviewers less likely to make strong criticisms (63,22)
  - Publishing review reports will increase the quality of reviews (63,52)
  - Potential reviewers are less likely to agree to review for journals that publish review reports (63,39)
  - Potential authors are less likely to submit to journals that publish review reports (62,79)

- **Statements Open IDs**
  - Making reviewer identities open will make reviewers less likely to make strong criticisms (63,66)
  - Making reviewer identities open will increase the quality of reviews (63,11)
  - Reviewers should be allowed to choose whether or not to make their identities open (63,86)
  - Making reviewer identities open is fairer to authors (63,21)
  - Potential reviewers are less likely to agree to review for journals that make reviewer identities open...
  - Potential authors are less likely to submit to journals that make reviewer identities open (62,51)

Novel Models for Open Peer Review. OpenAIRE report 2016
Growing demands

2. Incentives to review
   • Monetary (2009 peer review survey results not in favour)
   • Social: crediting peer review
     ✓ Publons, Peerage of Science
     ✓ Peer review in academic promotion- recommendation of the OSI workgroup:
       Address incentives and motivations to participate in peer review, not only in the context of rewards or credits for individuals but also in terms of the importance of peer review for promotion and tenure. (Acreman 2016)

3. Mentoring peer review
   • Training is not provided in graduate or postgraduate education
   • The process is often not formalized or communi

4. Standards
Open science

Good peer review depends on the trust and cooperation of all the players – reviewers and authors rely on each other to do a good job and both gain skills and experience from seeing the other side of the process. *Leila Jones, Journals Development Manager, Taylor & Francis*
Open science

Open Science is the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods.

Wikipedia defines open science within the context of six aspects. (based on Kraker and penscienceASAP)

The ultimate goal is to enhance openness in disseminating and sharing research data, software code, research results and papers, and in peer-review.

(Masuzzo)
Open collaborations
See more of OpenUP:

http://openup-h2020.eu/
https://twitter.com/ProjectOpenUP
https://www.facebook.com/projectopenup/?fref=ts

Edit Görögh
goeroegh@sub.uni-goettingen.de
References


