Reviewing a Scientific Manuscript

WGS course

21 March 2024

Marielos Peña-Claros & Fanrong Meng





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Fanrong Meng

Peer review – An introduction



Marielos Peña-Claros

A reviewer's and editor's narrative

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I. Peer Review Process

Peer Review in General

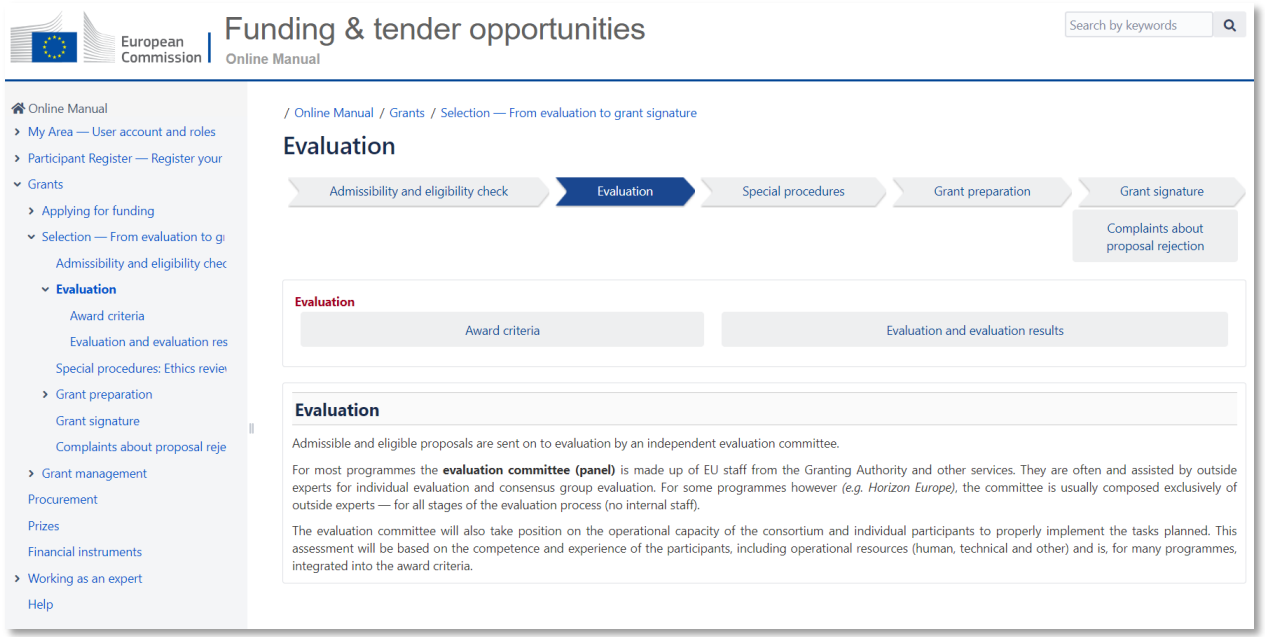
Career steps

Assistant Professors start within a temporary position. The duration of this first contract depends on the work history of the candidate. A candidate from outside Wageningen University will have, in general, a temporary contract for 7 years. After that period, if the tenure tracker passes the assessment procedures, he/she will be offered a permanent position. Usually this will be combined with promotion to the next level, Associate Professor.

Due to the Dutch legislation, a candidate from inside Wageningen University will be assessed for a permanent position within a maximum period of four years, if possible combined with the assessment for the next career step.

	Assistant Professor 2	Assistant Professor 1	Associate Professor 2	Associate Professor 1
Inflow				
• Postdocs internal/ external, current UD and UHD	*Temporary contract (scale 11)*	*Temporary contract (scale 12)*	*Permanent contract (scale 13)*	Permanent contract (scale 14)
Recruitment & Selection • Departmental BAC advises on appointment • General Director Science Group decides on appointment	**Midterm assessment** • Departmental BAC advises on promotion • General Director Sciences Group decides on promotion	**Extended assessment** • Departmental BAC advises on promotion and appointment • General Director Sciences Group decides on promotion or ending of position	**Midterm assessment** • Departmental BAC advises on promotion • General Director Sciences Group decides on promotion	**Extended assessment** • Associate Professors 1 in the Tenure Track system receive the IUS promovendi

Tenure Track at WUR



Grant Proposal Evaluation

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What is peer review?



Peer review, what and why?

Peer review is designed to assess the validity, quality and often the originality of articles for publication. Its ultimate purpose is to ***maintain the integrity*** of science by filtering out invalid or poor-quality articles (Willey Publisher).

In the field of academia, you write and submit your research articles for publication, and you also review articles written by your academic peers. This is a tough but rewarding duty as a researcher.

What benefits you?



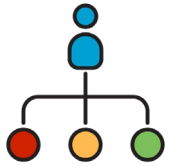
Critical thinking and quality comments



Validating your research skills



Stand in the frontier of your research .



More exposure to the journals and editors

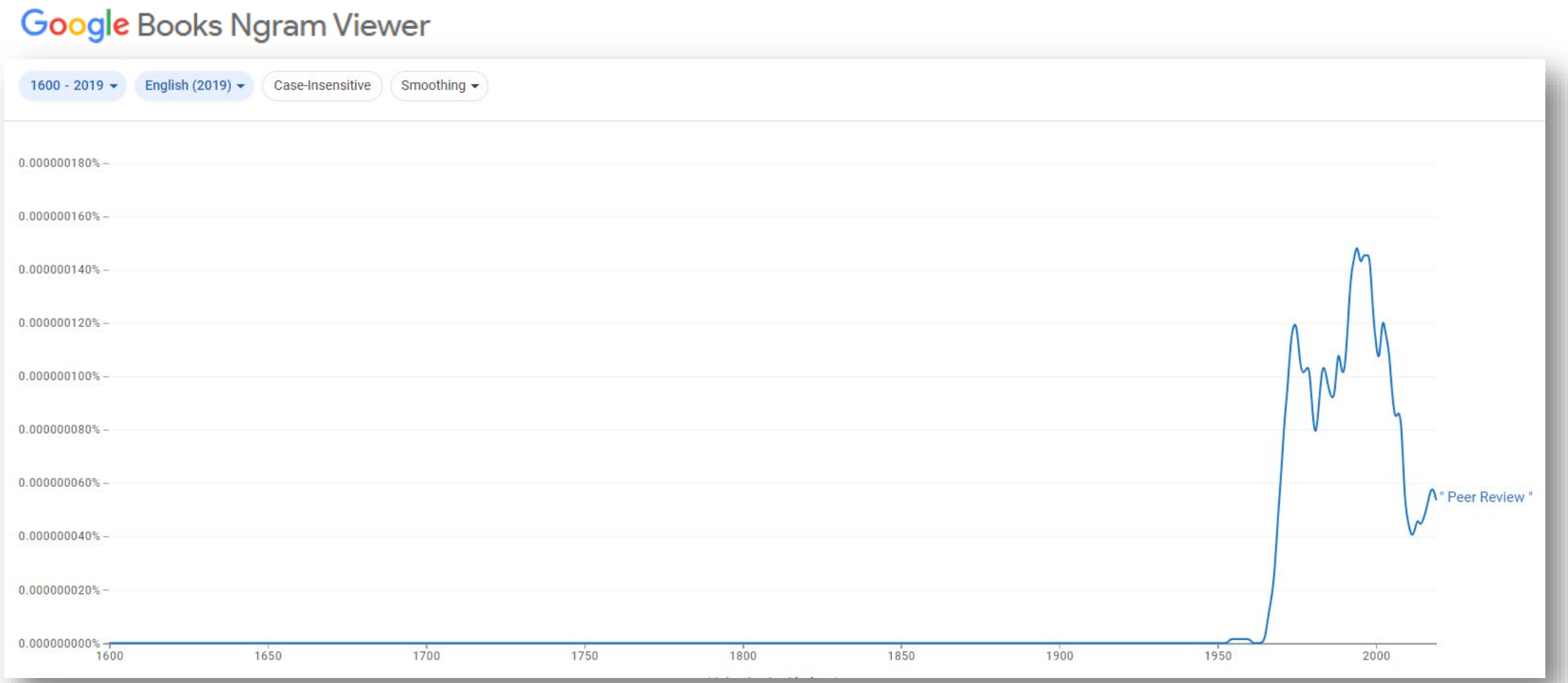
WHY DO RESEARCHERS CHOOSE TO PEER REVIEW?



Global State of Peer Review 2018, web of science

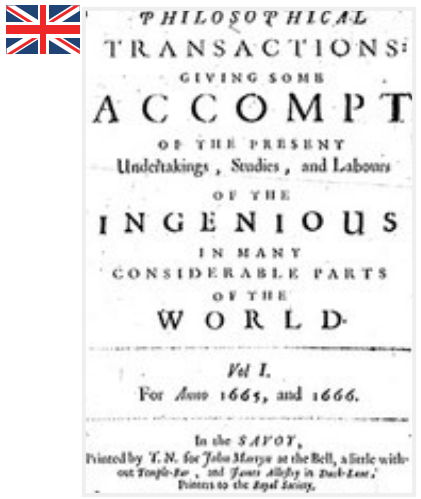
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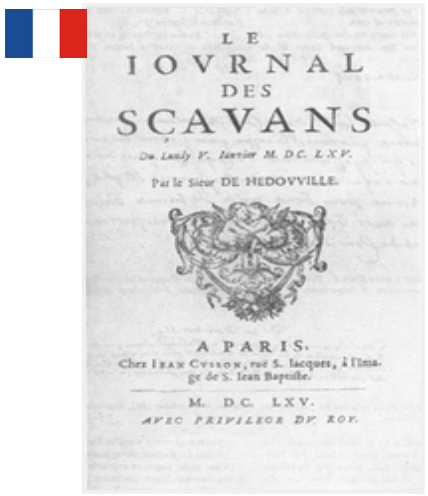
A brief history of Peer Review



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A Brief History of Peer Review


PHILOSOPHICAL
TRANSACTIONS:
GIVING SOME
ACCOMPT
OF THE PRESENT
Undertakings, Studies, and Labours
OF THE
INGENIOUS
IN MANY
CONSIDERABLE PARTS
OF THE
WORLD.
Vol I.
For Anno 1665, and 1666.
In the SAVOY,
Printed by T. N. for John Martyn at the Bell, a little without Temple-Bar, and Jeames Allestry in Duck-Lane,
Printers to the Royal Society.


LE
IOVRNAL
DES
SCAVANS
Par le Sieur DE HEDOVVILLE.
A PARIS.
M. D.C. LXV.
AVEC PRIVILEGE DV ROY.

Rudiment of Peer Review

- Privilege;
- Avoid bias and incompetence;
- Gives the impression of a collective decision;



Robert Oppenheimer

1665

- ***January 1665:***
  Journal des Sçavans, France
- ***March 1665:***
  Philosophical Transactions, England

First Journals

1800/1900

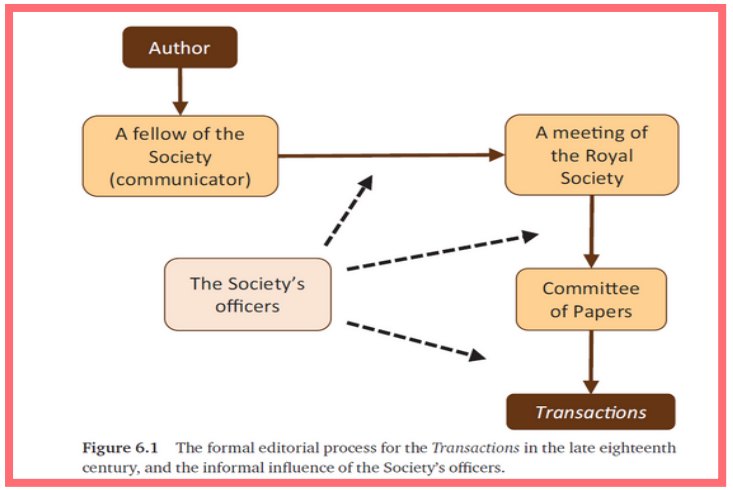


Figure 6.1 The formal editorial process for the *Transactions* in the late eighteenth century, and the informal influence of the Society's officers.

1950s/60s

- Cold war resulted flooded funding;
- English becomes international language;
- Entrepreneurial new entrants to journal publishing: Robert Maxwell and subscription;
- Impact Factor: Eugene Garfield;
- Peer review in the systematized and institutionalized form
- Ingelfinger rule 1969

Commercialization

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The peer review process today

http://phys.org/news/2013-09-publish-perish-career-academics.html

Choose Journal → Manuscript prep. → Submission (Re-submit)

Submission (Re-submit) → Editorial Check

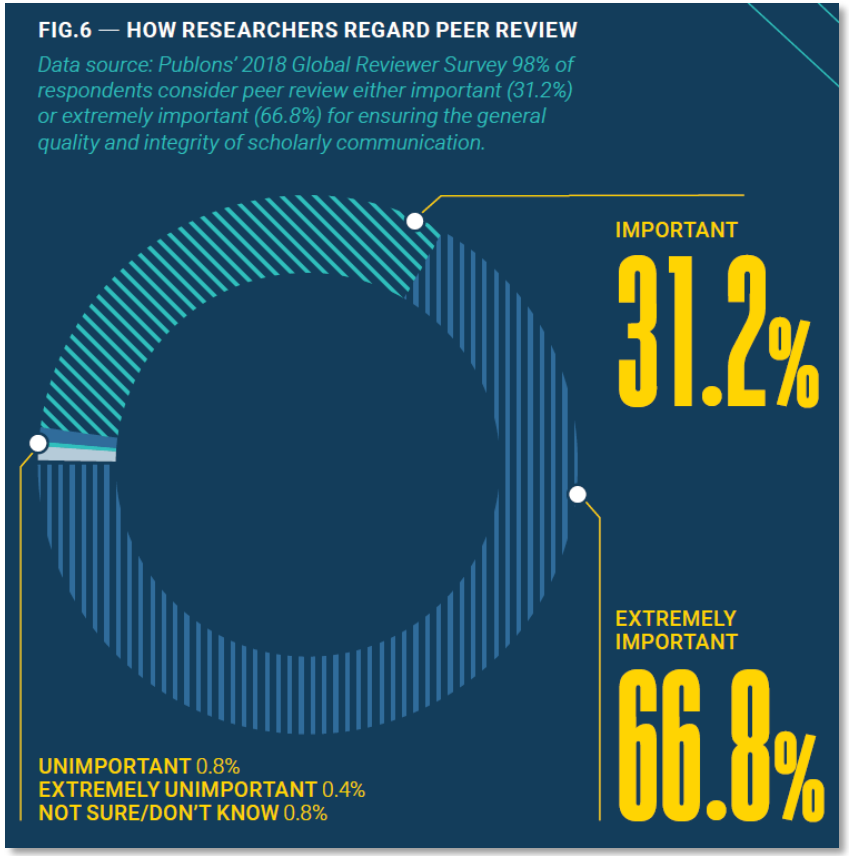
Editorial Check → Rejected → Choose Journal

Editorial Check → Invite Reviewers → Peer Review → Collect reviews → Editorial Decision

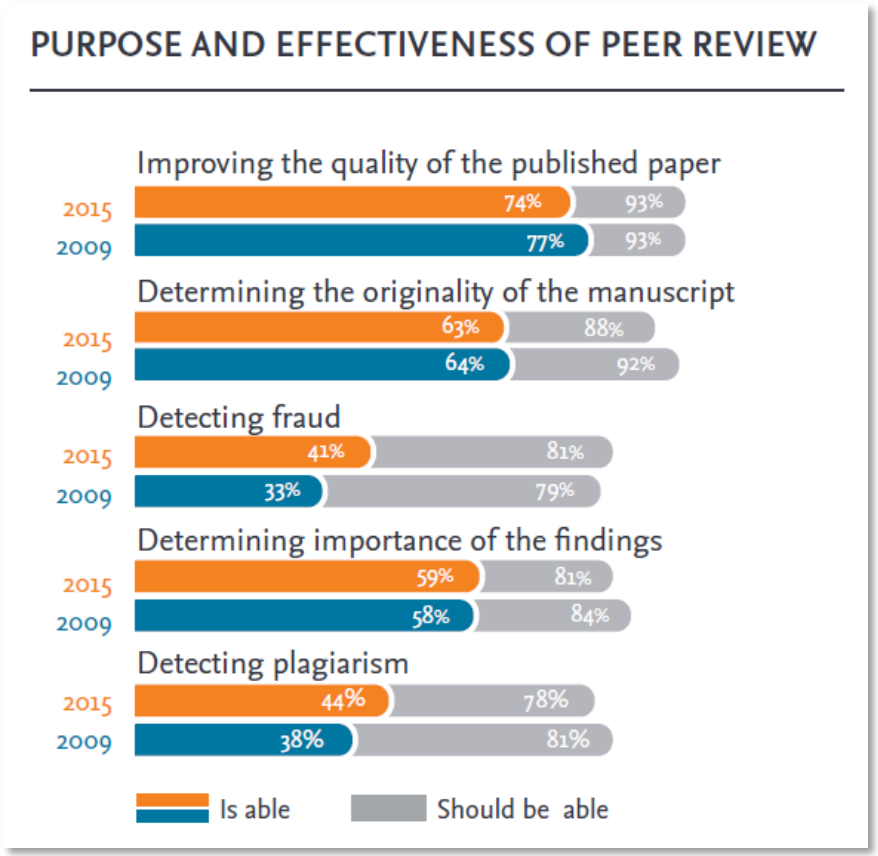
Editorial Decision → Revisions received → Submission (Re-submit)

Editorial Decision → Publish

Opinions about peer review

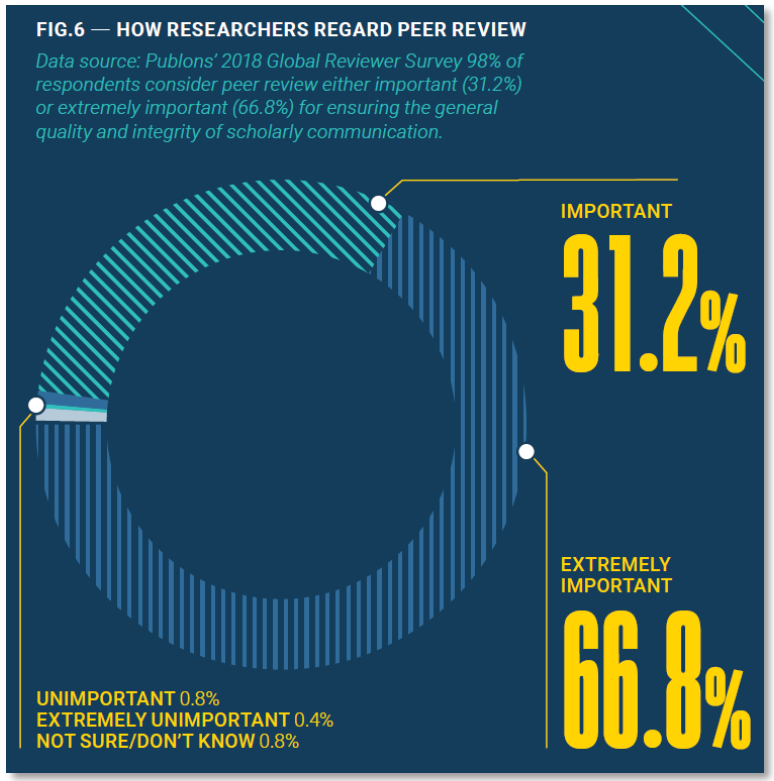


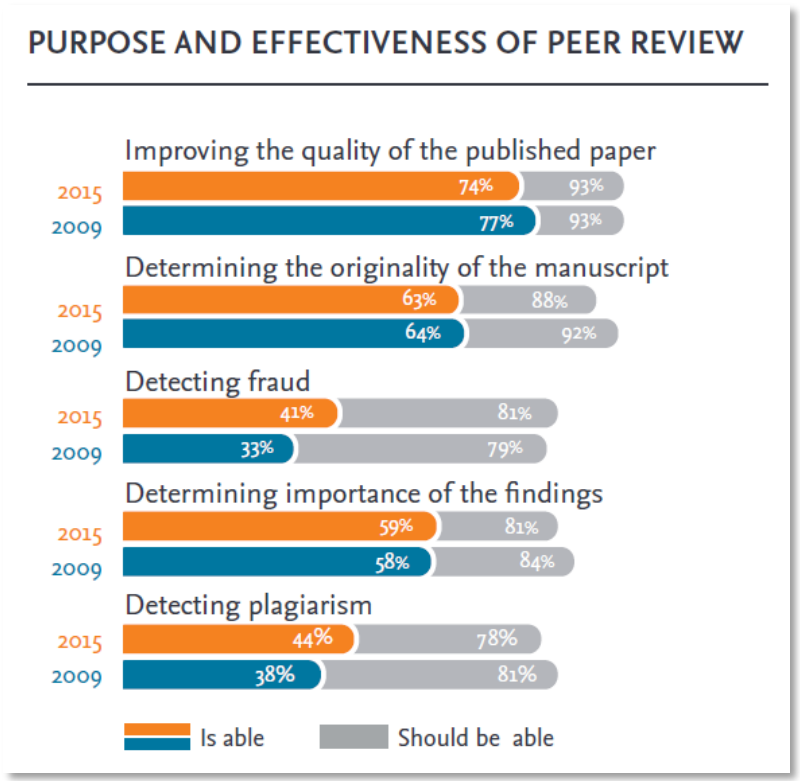
Global State of Peer Review 2018, web of science

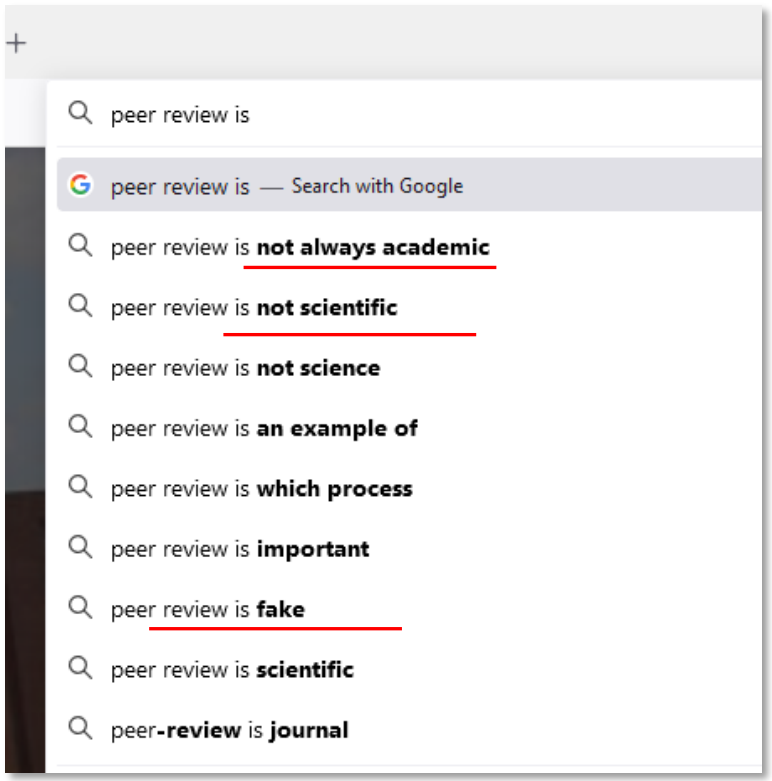


Elsevier (2017) How researchers really feel about peer review. Inforgraphic for Peer Review Week 2016

Opinions about peer review







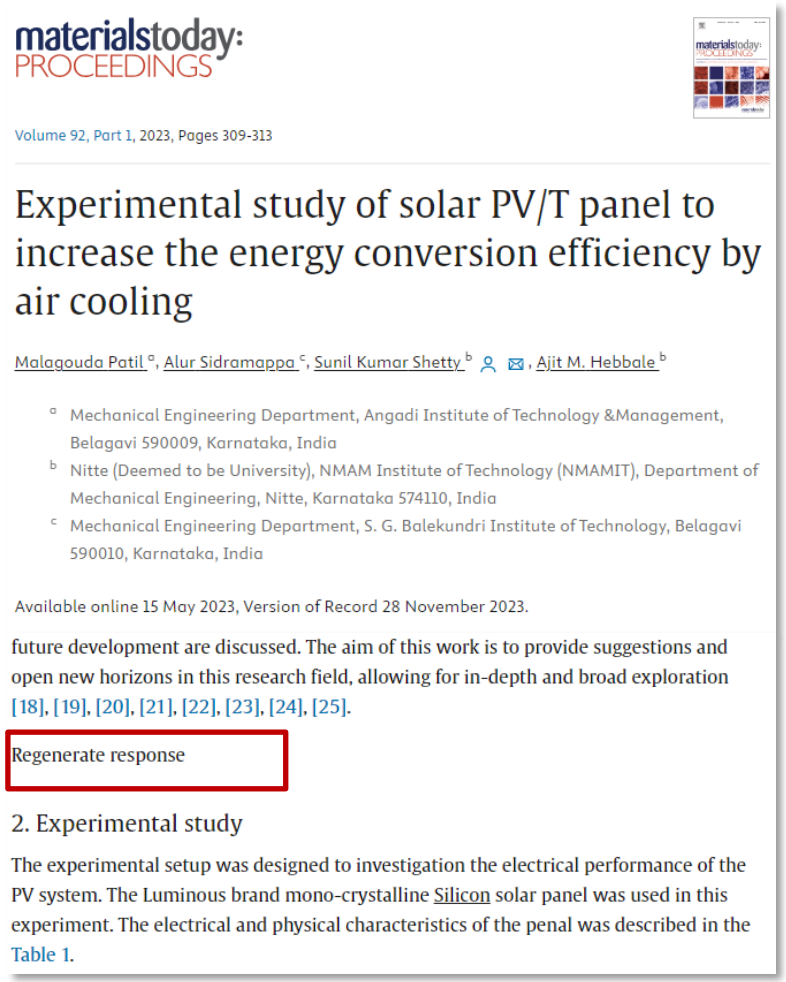
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Comments received during peer review



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Peer Review-Detecting Plagiarism



materialstoday: PROCEEDINGS

Volume 92, Part 1, 2023, Pages 309-313

Experimental study of solar PV/T panel to increase the energy conversion efficiency by air cooling

Malagouda Patil [a], Alur Sidramappa [c], Sunil Kumar Shetty [b], Ajit M. Hebbale [b]

[a] Mechanical Engineering Department, Angadi Institute of Technology &Management, Belagavi 590009, Karnataka, India
[b] Nitte (Deemed to be University), NMAM Institute of Technology (NMAMIT), Department of Mechanical Engineering, Nitte, Karnataka 574110, India
[c] Mechanical Engineering Department, S. G. Balekundri Institute of Technology, Belagavi 590010, Karnataka, India

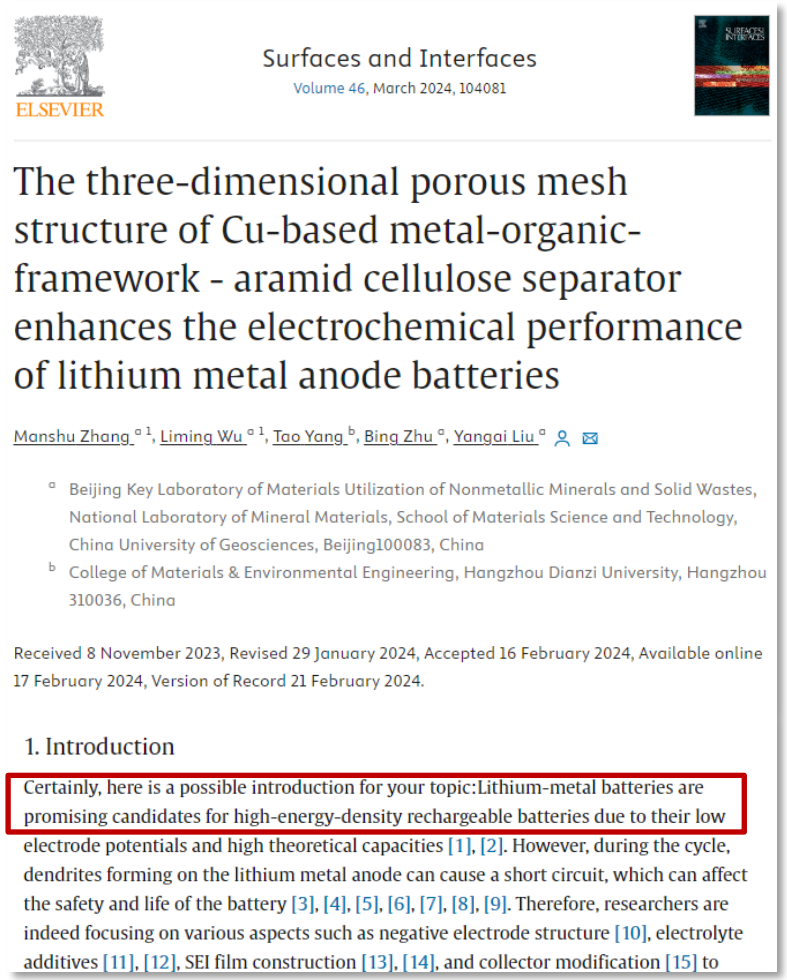
Available online 15 May 2023, Version of Record 28 November 2023.

future development are discussed. The aim of this work is to provide suggestions and open new horizons in this research field, allowing for in-depth and broad exploration [18], [19], [20], [21], [22], [23], [24], [25].

Regenerate response

2. Experimental study

The experimental setup was designed to investigation the electrical performance of the PV system. The Luminous brand mono-crystalline Silicon solar panel was used in this experiment. The electrical and physical characteristics of the penal was described in the Table 1.



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Surfaces and Interfaces

Volume 46, March 2024, 104081

The three-dimensional porous mesh structure of Cu-based metal-organic-framework - aramid cellulose separator enhances the electrochemical performance of lithium metal anode batteries

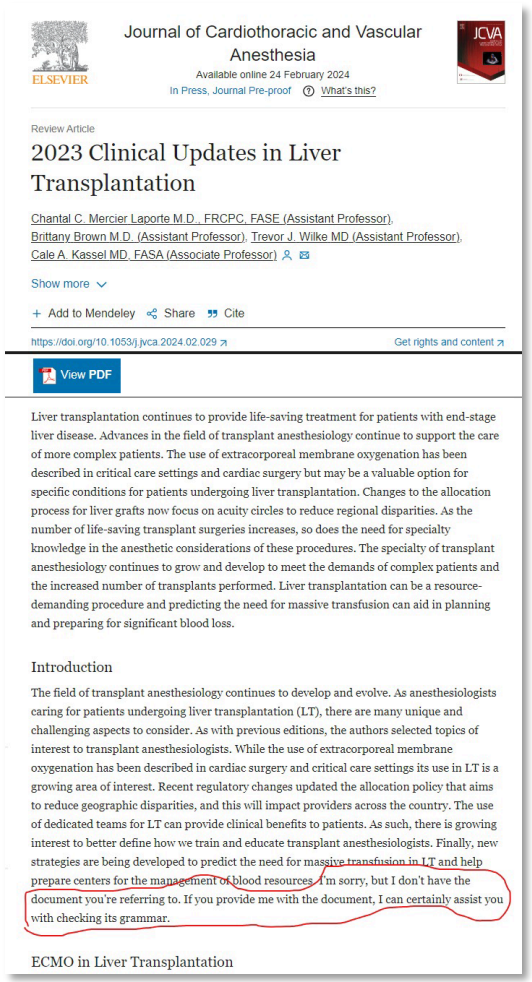
Manshu Zhang [a 1], Liming Wu [a 1], Tao Yang [b], Bing Zhu [a], Yangai Liu [a]

[a] Beijing Key Laboratory of Materials Utilization of Nonmetallic Minerals and Solid Wastes, National Laboratory of Mineral Materials, School of Materials Science and Technology, China University of Geosciences, Beijing100083, China
[b] College of Materials & Environmental Engineering, Hangzhou Dianzi University, Hangzhou 310036, China

Received 8 November 2023, Revised 29 January 2024, Accepted 16 February 2024, Available online 17 February 2024, Version of Record 21 February 2024.

1. Introduction

Certainly, here is a possible introduction for your topic:Lithium-metal batteries are promising candidates for high-energy-density rechargeable batteries due to their low electrode potentials and high theoretical capacities [1], [2]. However, during the cycle, dendrites forming on the lithium metal anode can cause a short circuit, which can affect the safety and life of the battery [3], [4], [5], [6], [7], [8], [9]. Therefore, researchers are indeed focusing on various aspects such as negative electrode structure [10], electrolyte additives [11], [12], SEI film construction [13], [14], and collector modification [15] to



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Journal of Cardiothoracic and Vascular Anesthesia

Available online 24 February 2024
In Press, Journal Pre-proof What's this?

Review Article

2023 Clinical Updates in Liver Transplantation

Chantal C. Mercier Laporte M.D., FRCPC, FASE (Assistant Professor), Brittany Brown M.D. (Assistant Professor), Trevor J. Wilke MD (Assistant Professor), Cale A. Kassel MD, FASA (Associate Professor)

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https://doi.org/10.1053/j.jvca.2024.02.029 Get rights and content

View PDF

Liver transplantation continues to provide life-saving treatment for patients with end-stage liver disease. Advances in the field of transplant anesthesiology continue to support the care of more complex patients. The use of extracorporeal membrane oxygenation has been described in critical care settings and cardiac surgery but may be a valuable option for specific conditions for patients undergoing liver transplantation. Changes to the allocation process for liver grafts now focus on acuity circles to reduce regional disparities. As the number of life-saving transplant surgeries increases, so does the need for specialty knowledge in the anesthetic considerations of these procedures. The specialty of transplant anesthesiology continues to grow and develop to meet the demands of complex patients and the increased number of transplants performed. Liver transplantation can be a resource-demanding procedure and predicting the need for massive transfusion can aid in planning and preparing for significant blood loss.

Introduction

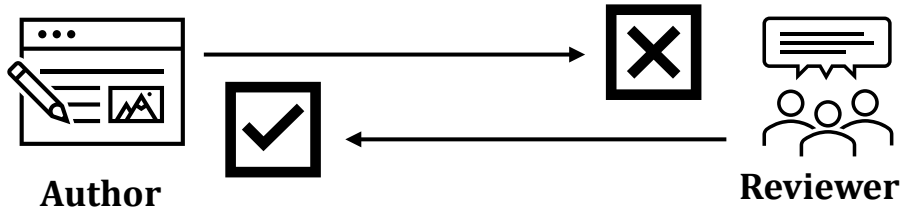
The field of transplant anesthesiology continues to develop and evolve. As anesthesiologists caring for patients undergoing liver transplantation (LT), there are many unique and challenging aspects to consider. As with previous editions, the authors selected topics of interest to transplant anesthesiologists. While the use of extracorporeal membrane oxygenation has been described in cardiac surgery and critical care settings its use in LT is a growing area of interest. Recent regulatory changes updated the allocation policy that aims to reduce geographic disparities, and this will impact providers across the country. The use of dedicated teams for LT can provide clinical benefits to patients. As such, there is growing interest to better define how we train and educate transplant anesthesiologists. Finally, new strategies are being developed to predict the need for massive transfusion in LT and help prepare centers for the management of blood resources. I'm sorry, but I don't have the document you're referring to. If you provide me with the document, I can certainly assist you with checking its grammar.

ECMO in Liver Transplantation

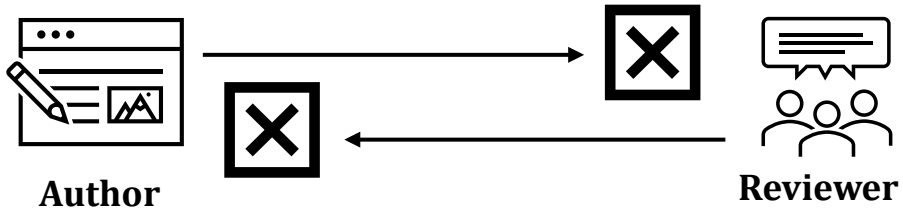
Found during the proofreading, has now being corrected.

Forms of peer review

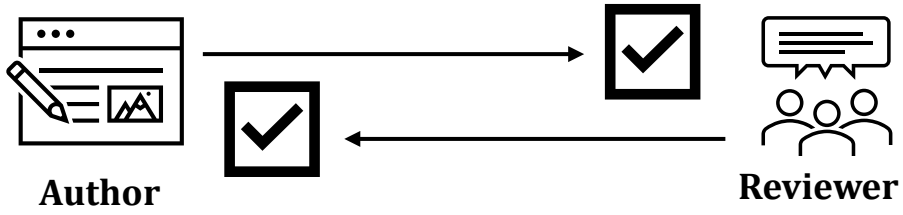
Single-blind review: author doesn't know reviewer.



Double-blind review: author doesn't know reviewer and vice versa.



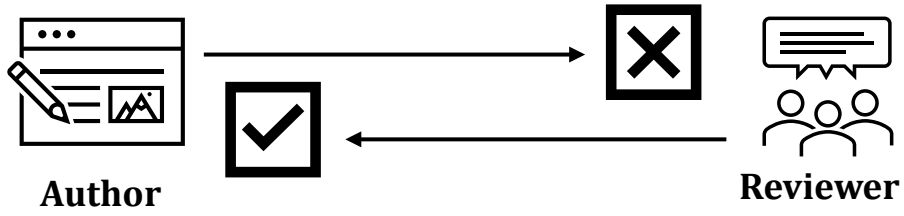
Open peer review: author and reviewers are aware of each other's identity



For a comparison, read https://www.enago.com/academy/double-blind-peer-review-for-better-or-for-worse/

Single-blind review

Single-blind review: author doesn't know reviewer.



For a comparison, read https://www.enago.com/academy/double-blind-peer-review-for-better-or-for-worse/

Single-blind review: Pros vs Cons

Pros

- The reviewer can be totally honest with their thoughts on the paper as they will remain anonymous throughout the process

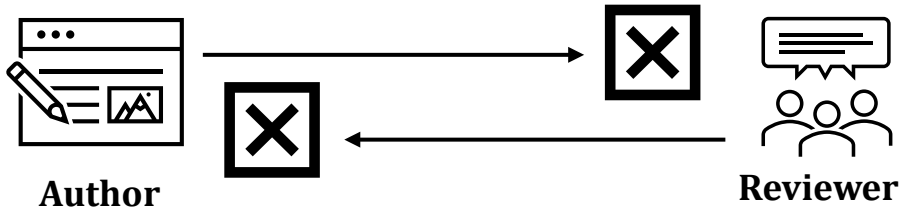
Cons

- Not transparent (how does reviewers being selected)
- Bias of conscious and unconscious towards someone (rival) or topic (competitive),
- Some reviewers may use their anonymity to write reviews that are rushed, rude, or unfair.

Double-blind review

Single-blind review: author doesn't know reviewer.

Double-blind review: author doesn't know reviewer and vice versa.



For a comparison, read https://www.enago.com/academy/double-blind-peer-review-for-better-or-for-worse/

Double-blind review: Pros vs Cons

Pros

- Less risk of conscious or unconscious bias from either the reviewer, or the author

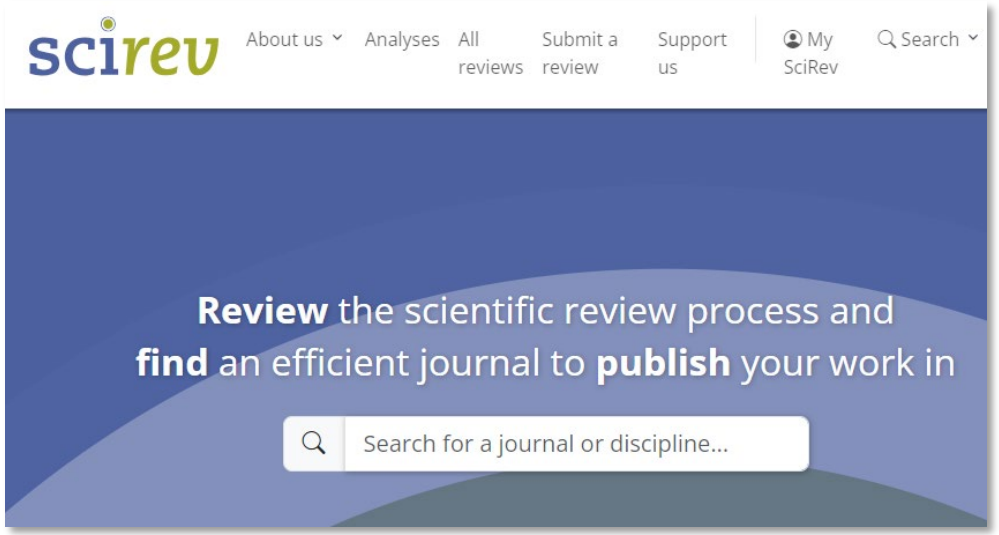
Cons

- It's not possible to guarantee the anonymity of the author. For example, if the reviewer was

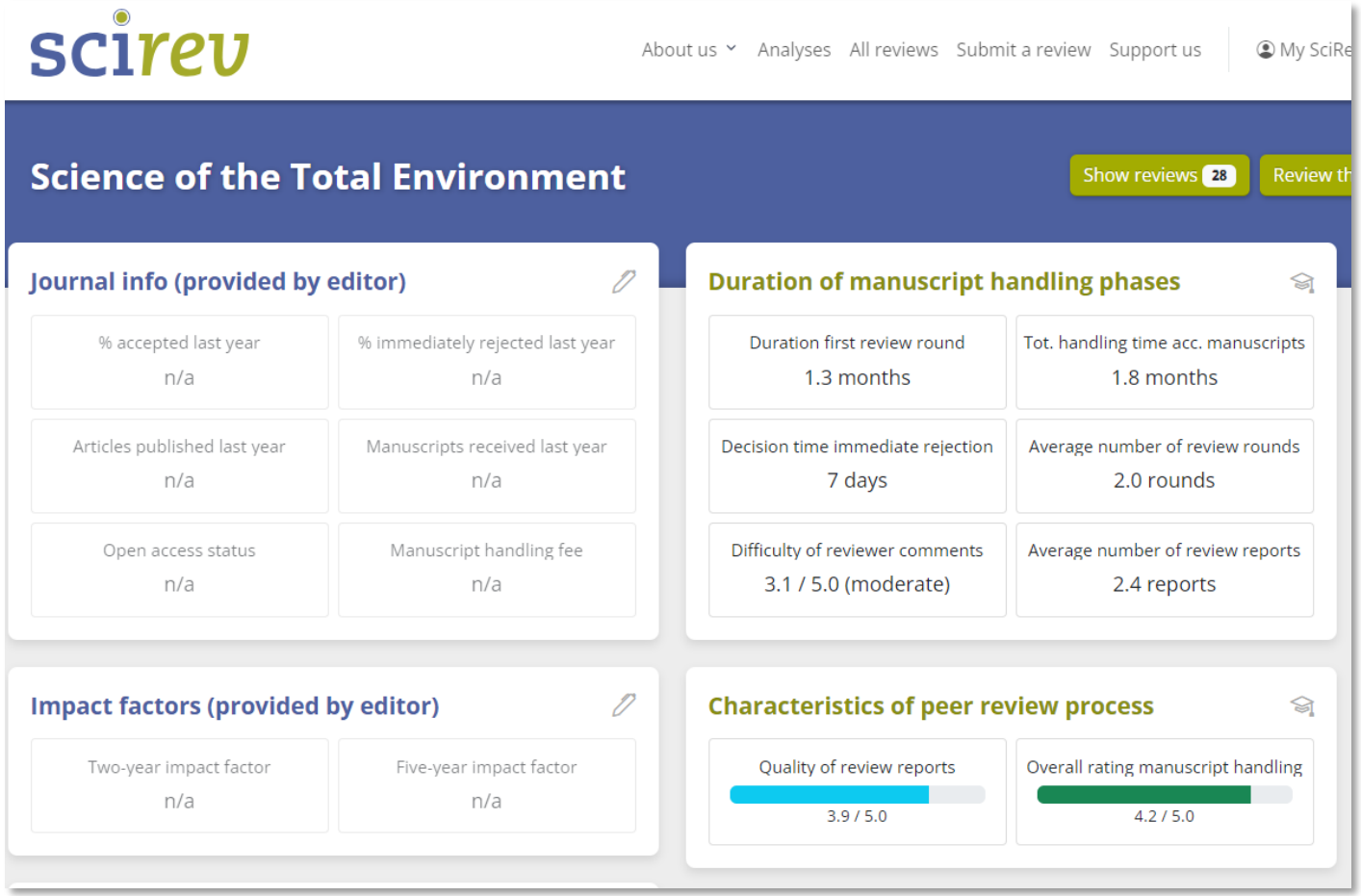
"That it is fundamentally unfair for authors to be exposed to the judgment of someone acting behind the screen of anonymity."

----------*Pros and cons of open peer review. Nat Neurosci 2, 197–198 (1999).* https://doi.org/10.1038/6295

Reviews of the peer review process in journals



[SciRev - Review the scientific review process]

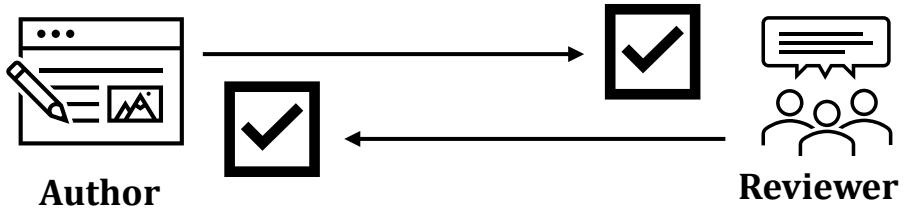


Open Peer Review

Single-blind review: author doesn't know reviewer.

Double-blind review: author doesn't know reviewer and vice versa.

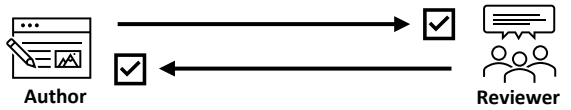
Open peer review: author and reviewers are aware of each other's identity



For a comparison, read https://www.enago.com/academy/double-blind-peer-review-for-better-or-for-worse/

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Open Peer Review Levels



Depends on the openness

1 Open identity / Attributed peer review

With open-identity the reviewer's names are part of the record of publication and can be considered when evaluating the work.

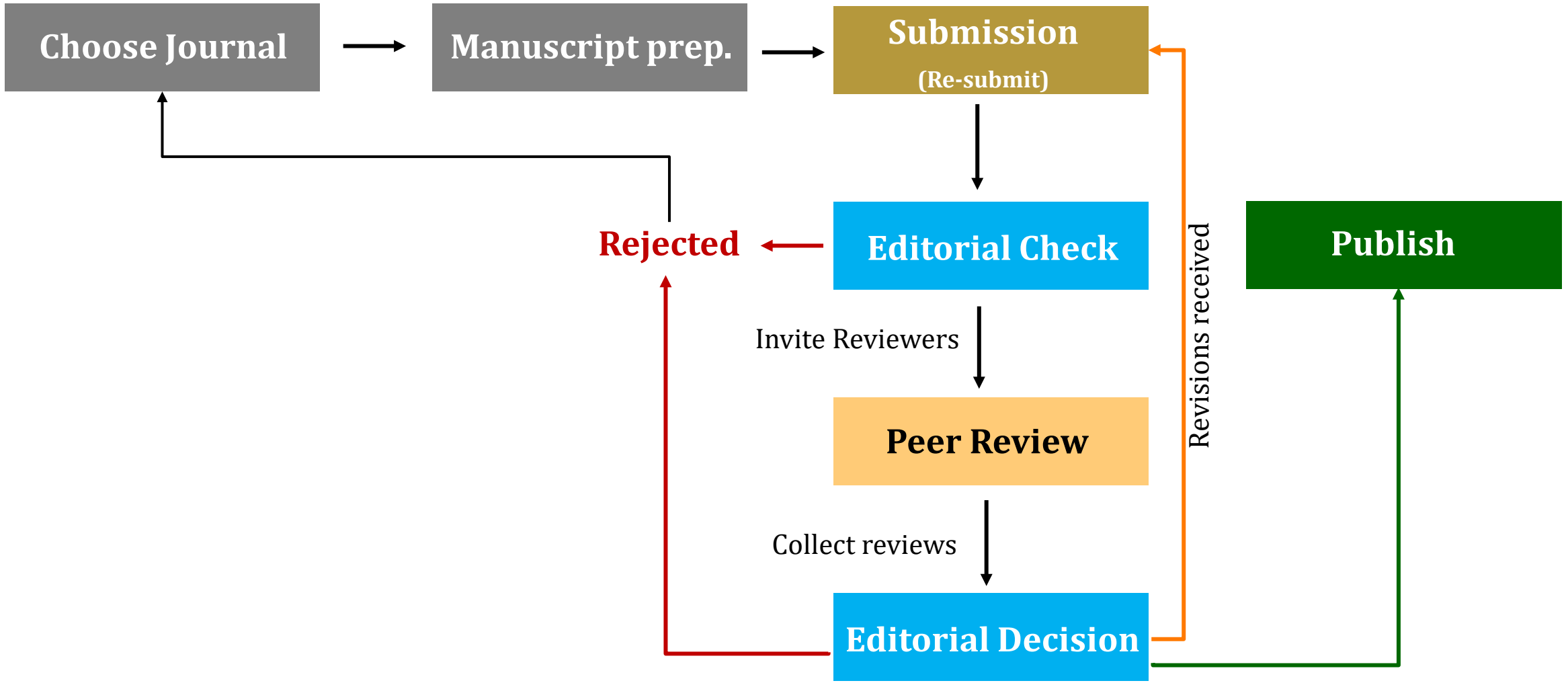
2 Open disclosure peer review

This means that the substance of the reviews, that is the reviews and comments themselves, are publicly available.
It has also been called public peer review or transparent peer review.

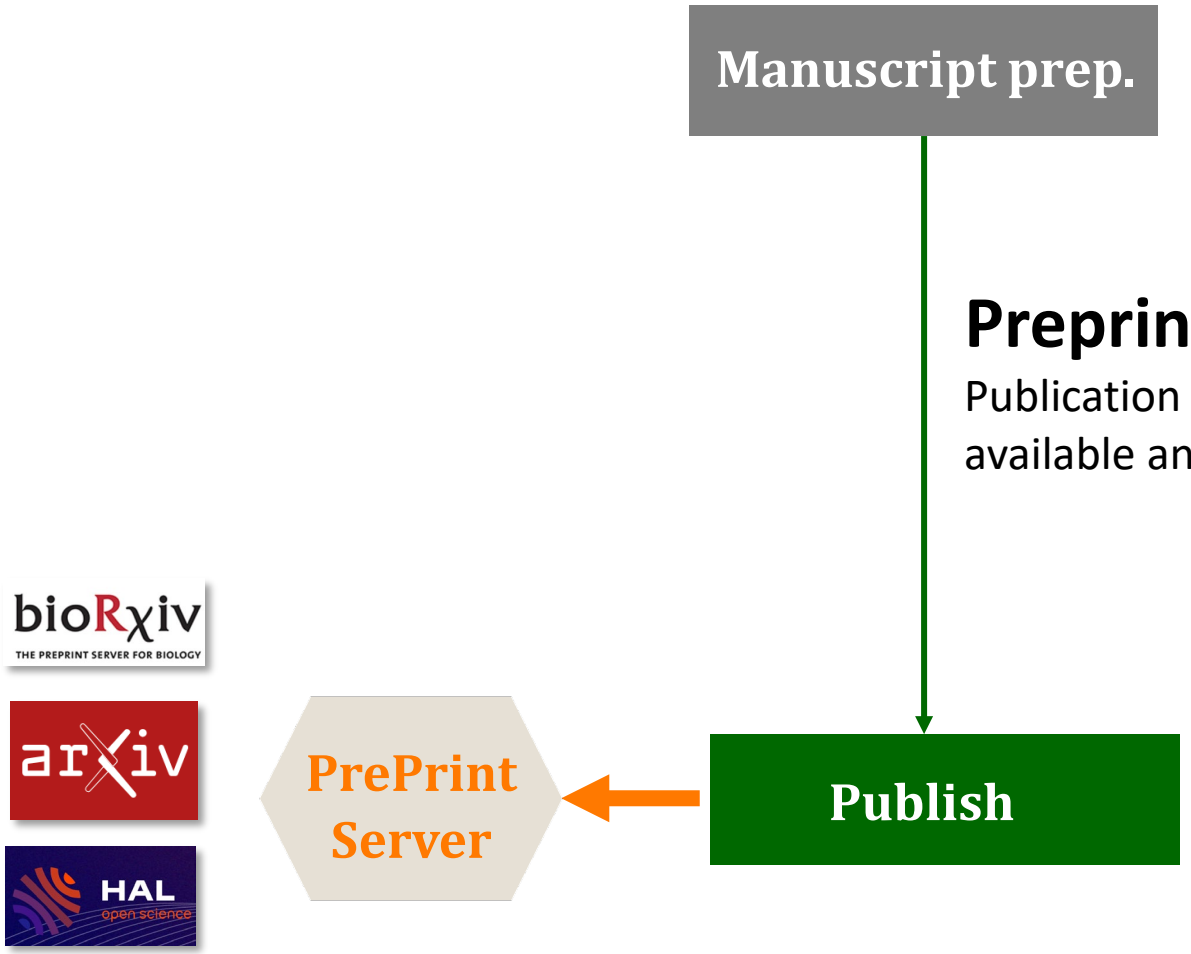
3 Open invitation review

Anyone can contribute to the peer review process. This becomes a continuous process, even after publication. This has this most impact in a rapidly evolving area.

What is Preprint



What is Preprint

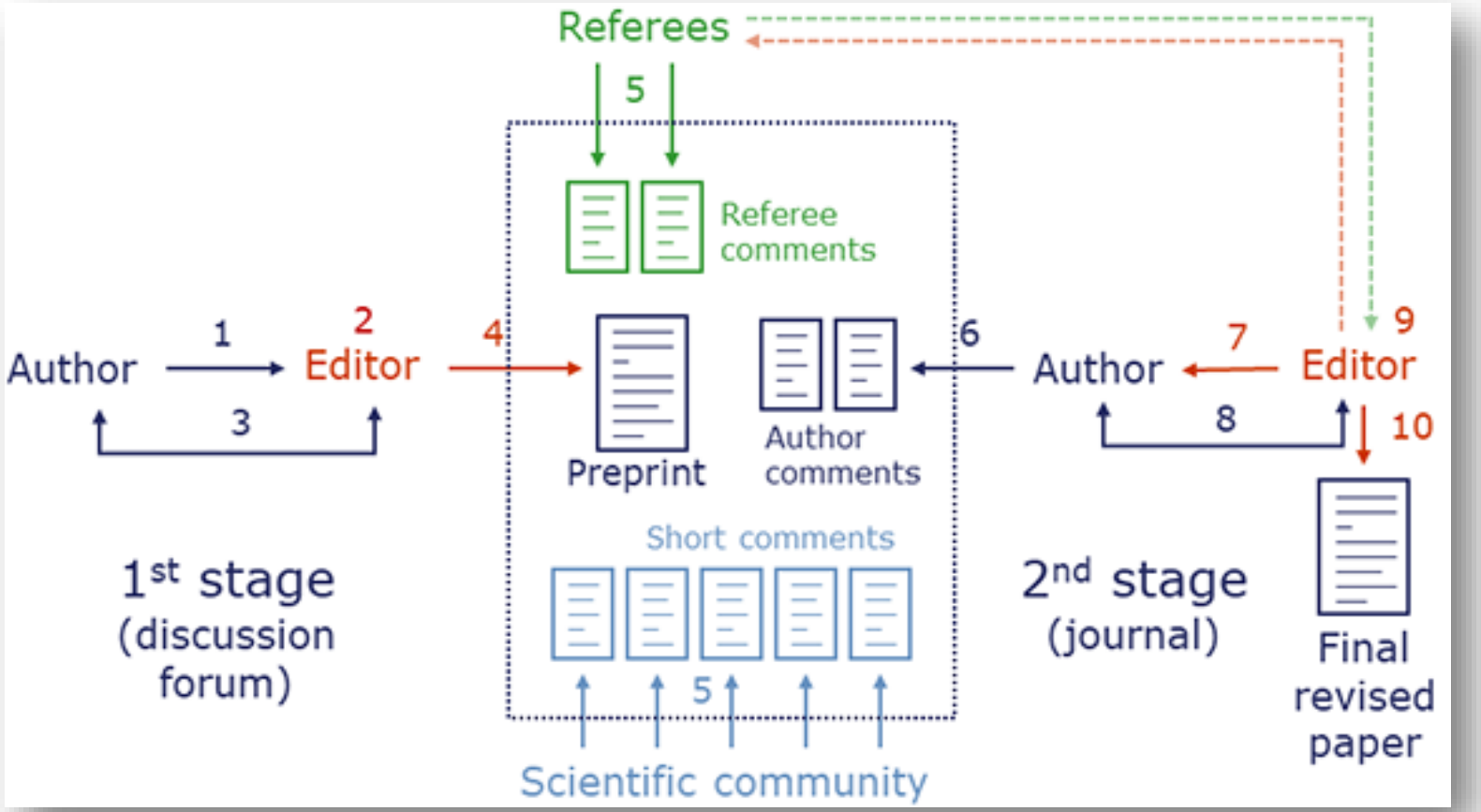


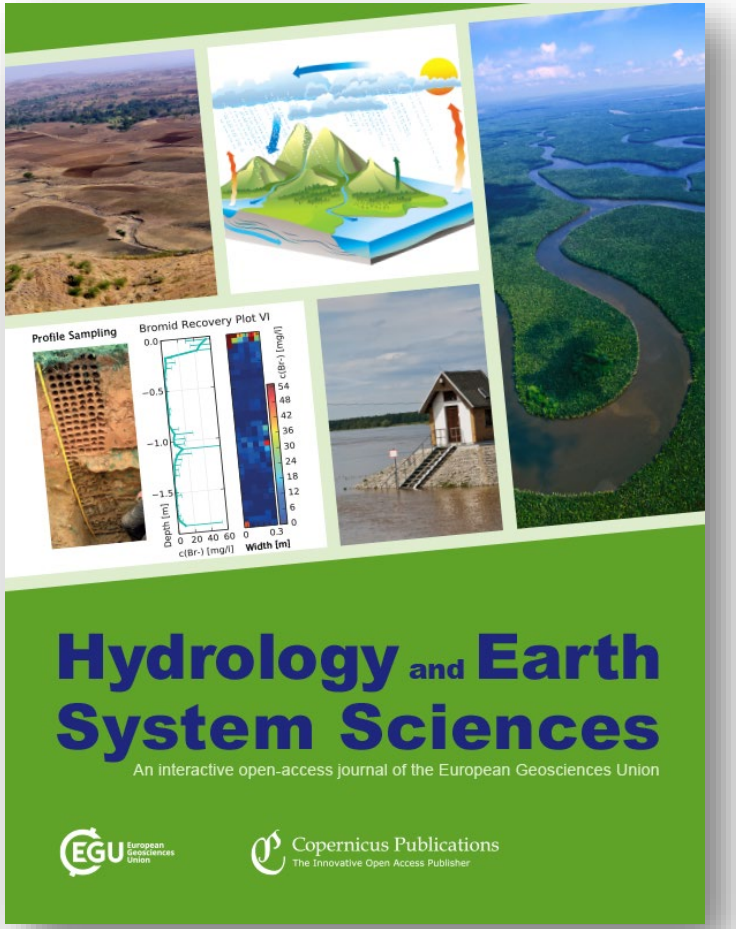
Preprint:

Publication of a manuscript in an online repository that is immediate available and without peer-review.

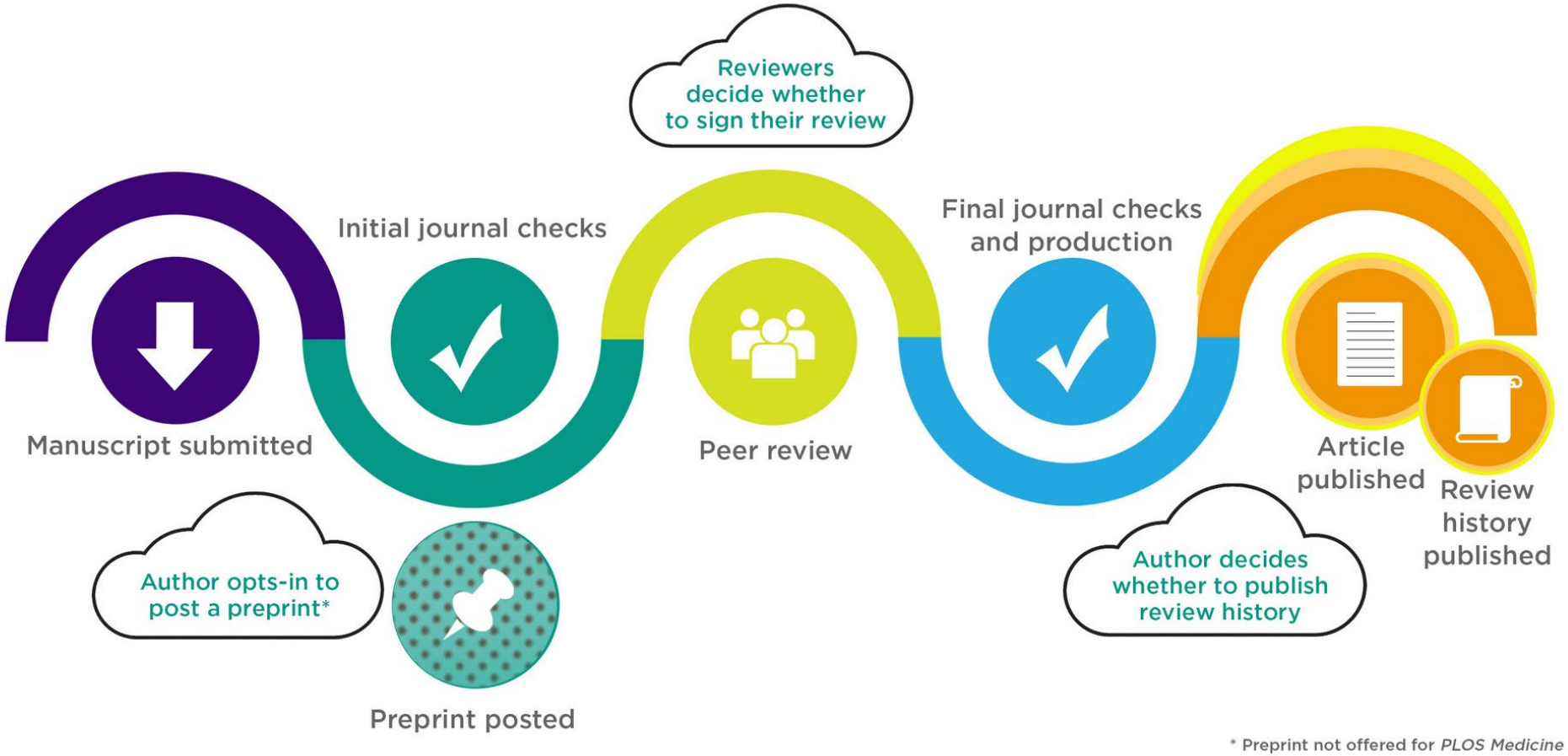
Open Peer Review – EGU journals

Hydrology and Earth System Sciences





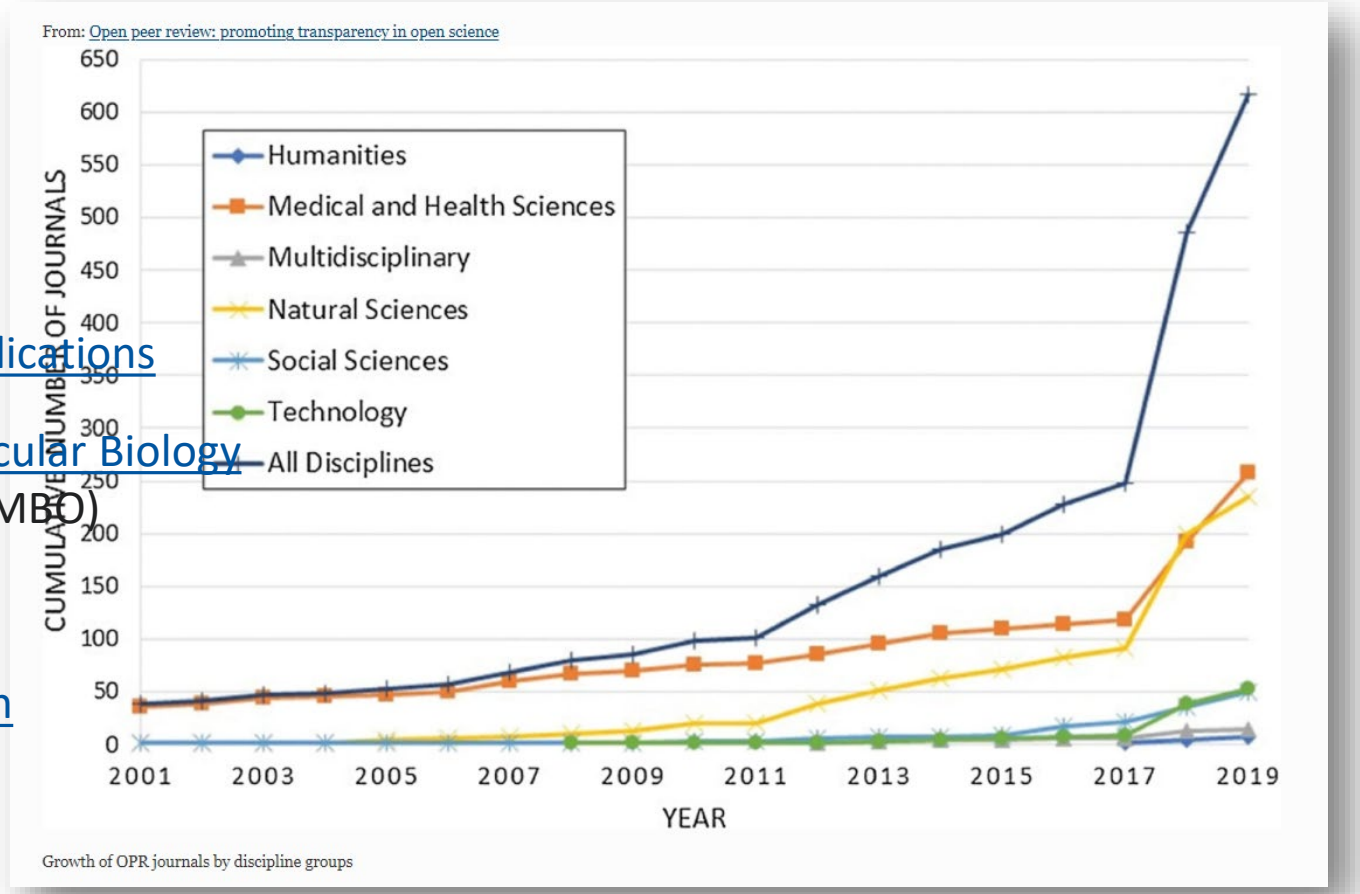
PLOS journals since May 2019 option to open the review



Growth of open peer review journals by discipline

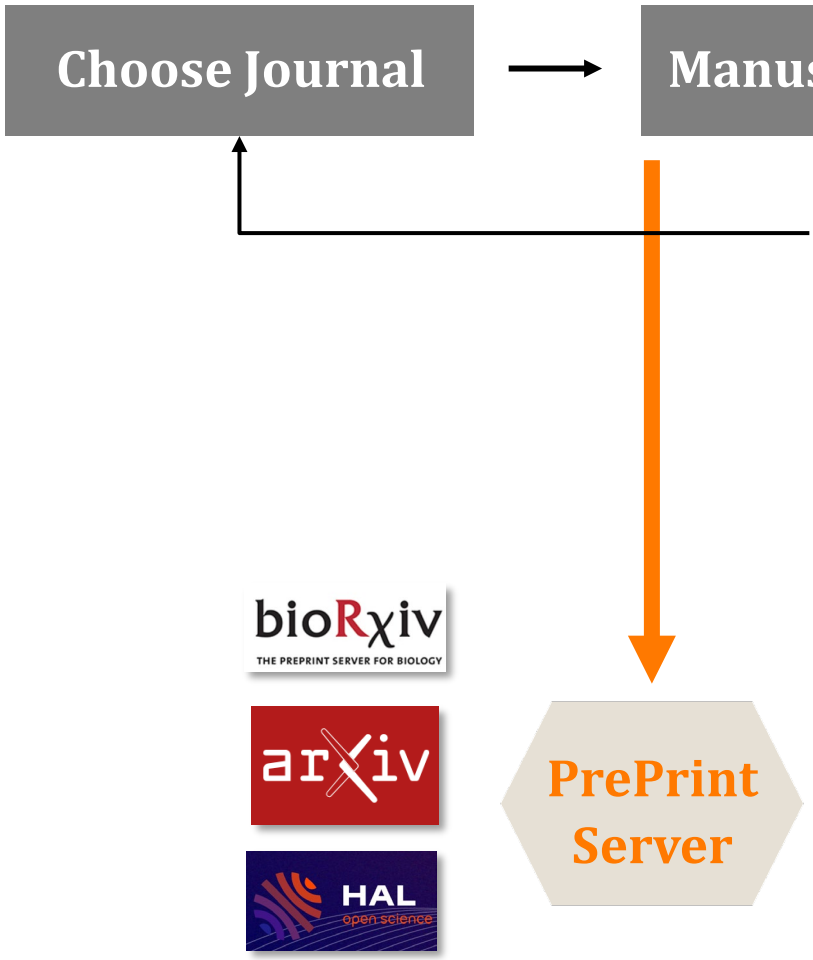
Examples of publishers offering Open Peer Review

- BioMed Central
- BMJ Group
- Copernicus Publications
- European Molecular Biology Organization (EMBO)
- Frontiers
- Nature Research



https://link.springer.com/article/10.1007/s11192-020-03488-4

What is Preprint



Preprint:

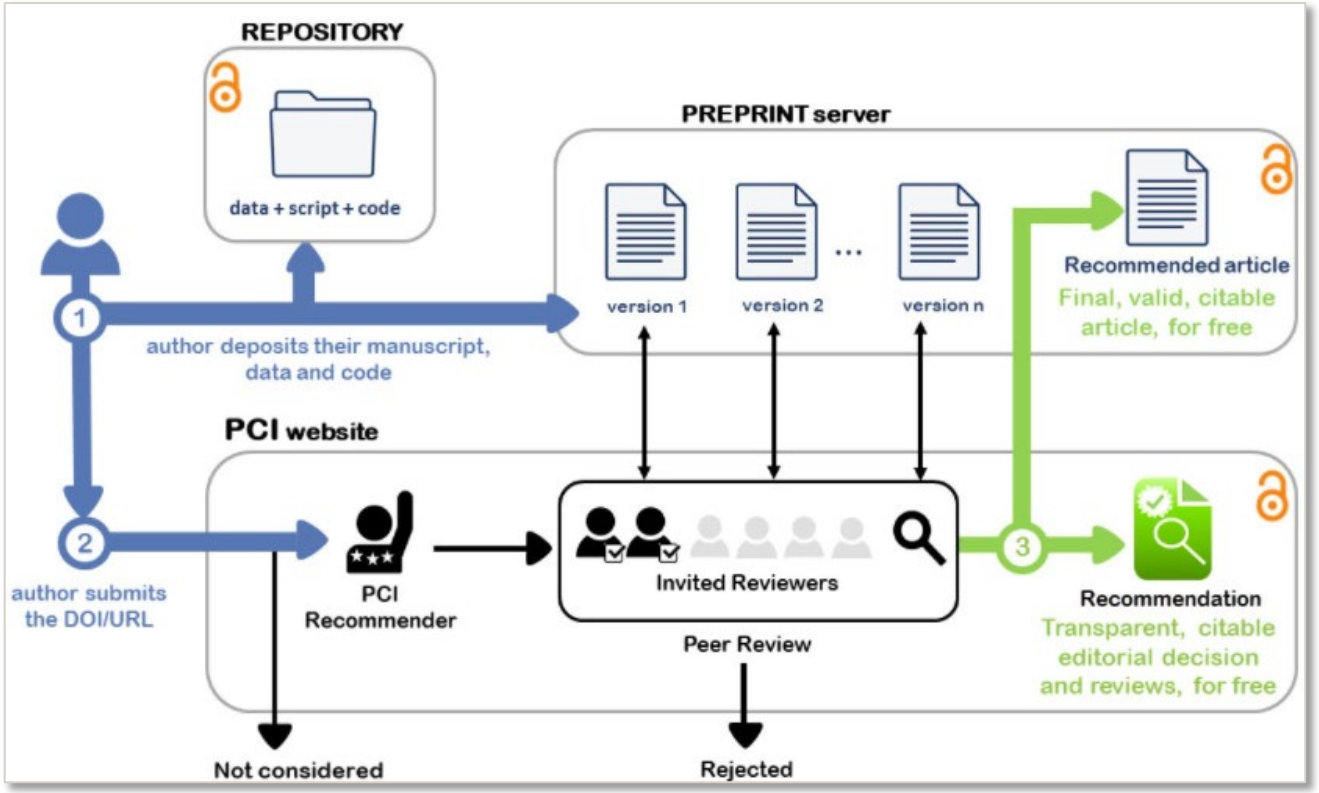
Publication of a manuscript in an online repository that is immediate available and without peer-review.

Peer Review for Preprint

Peercommunityin.org

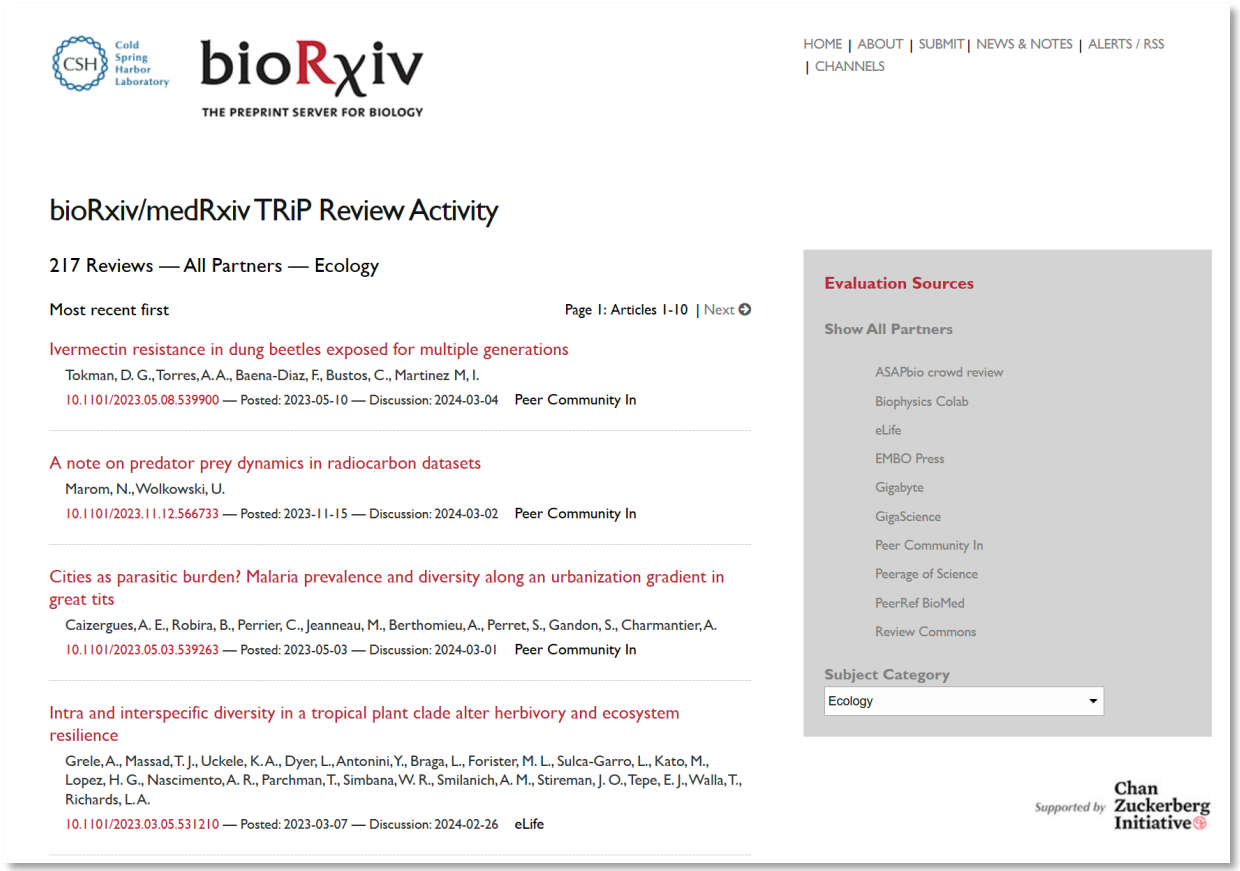
Review of preprints by a community of ***recommenders***.

- The recommendation itself can be cited.
- The recommended pre-print can be cited as “Peer reviewed”.
- The author can submit their work to traditional scientific journal for publication.



Peer Review for Preprint

Peercommunityin.org





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Open Peer Review: Pros vs Cons

Pros

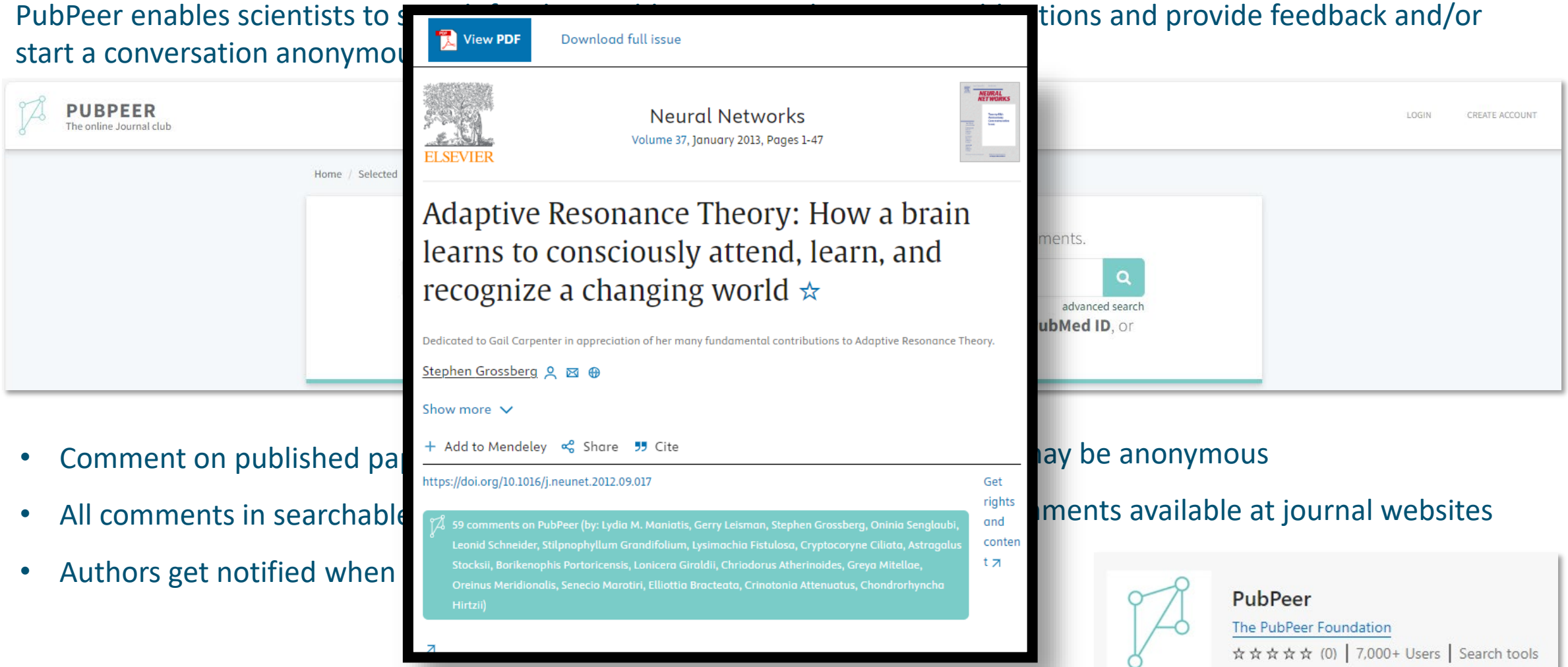
- Allowing other researchers to benefit from the feedback, arguments, and references
- Making it clear to readers which parts of a manuscript have been scrutinized
- Prompt referees to be more careful and thoughtful
- Enhancing peer review training
- Open review receives a DOI and can lead to higher impact of researcher.
- Fairly exposure
- Avoid hostile comments

Cons

- Referees for authors who hold power and influence;
- Quarrelsome or vindictive peers comments
- Opportunities of nepotism as prominent authors receive preferential treatment;
- Reciprocate favours over time;
- limit the candidates pool and lead to more bland, timid reviews.

Post Publication Review

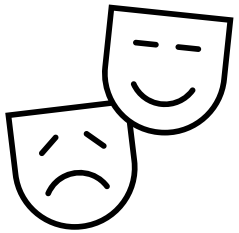
PubPeer enables scientists to s tions and provide feedback and/or start a conversation anonymou



- Comment on published pa ay be anonymous
- All comments in searchable ments available at journal websites
- Authors get notified when

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Predatory journals



What are they?

In short, predatory journals & conferences are scams. They take your work for a fee, "review" it, and then publish it to one of their issues. The problem is that there is no real review process. They take your pdf and money and throw it on a site.



How do I know if a journal is predatory?

1. Fake editorial boards (are they credible scientists?)
2. Very quick/consistent period from submission to acceptance (no date for revision!)
3. No language editing/poor English
4. Quality of the articles
5. https://predatoryreports.org/home
6. blog: watch out for predatory publishers
7. Think Check Submit
8. or ask the library

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Use of Gen. AI in Peer Review

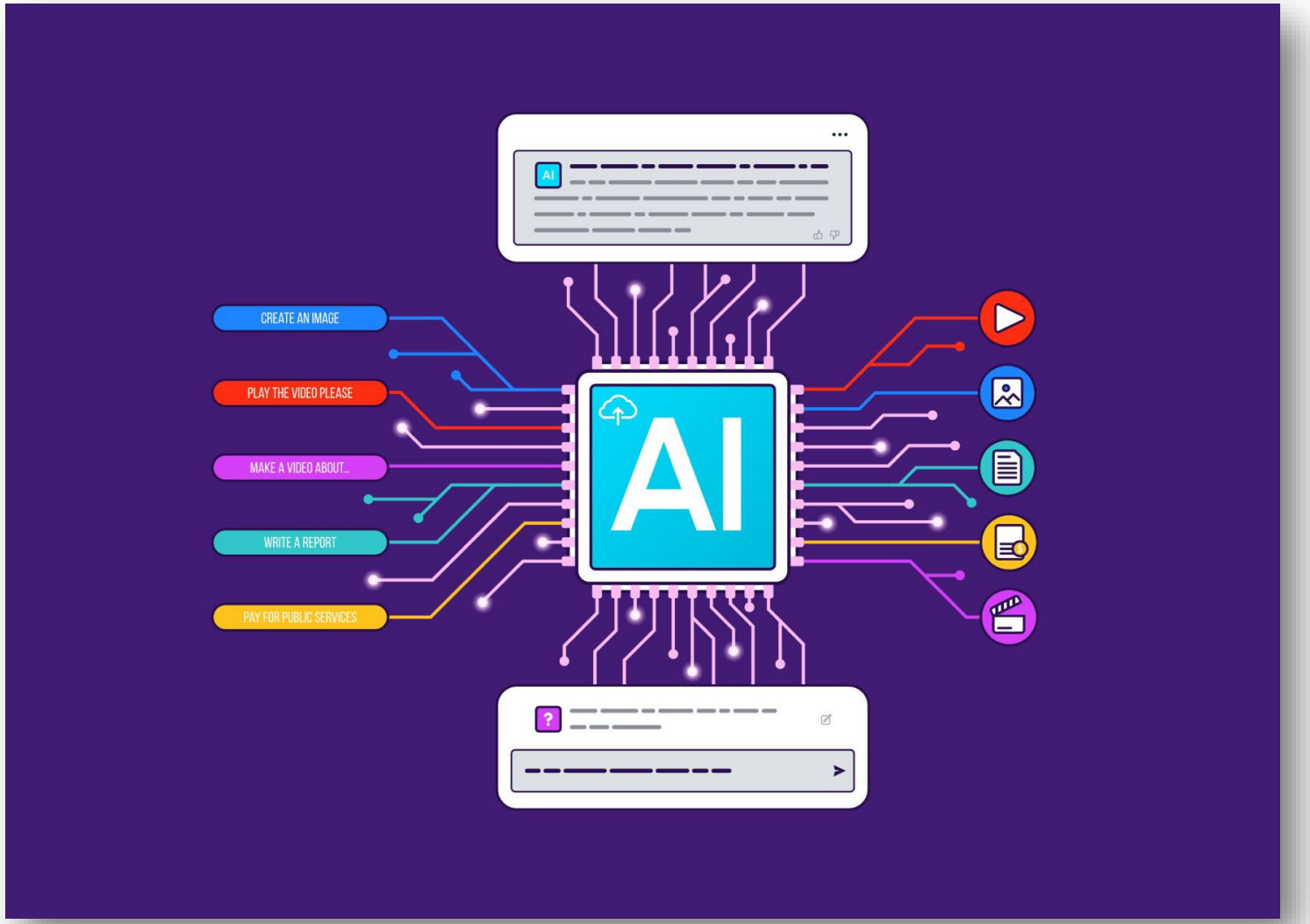


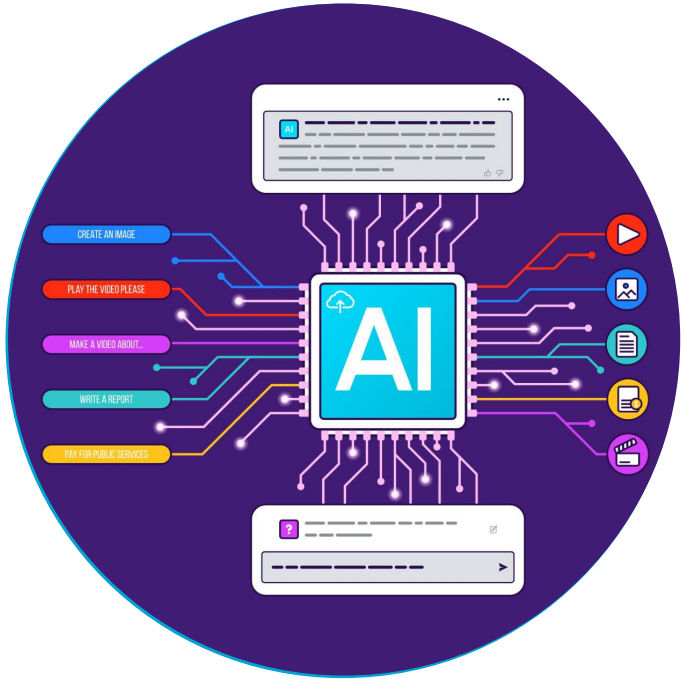
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Use of Gen. AI in Peer Review

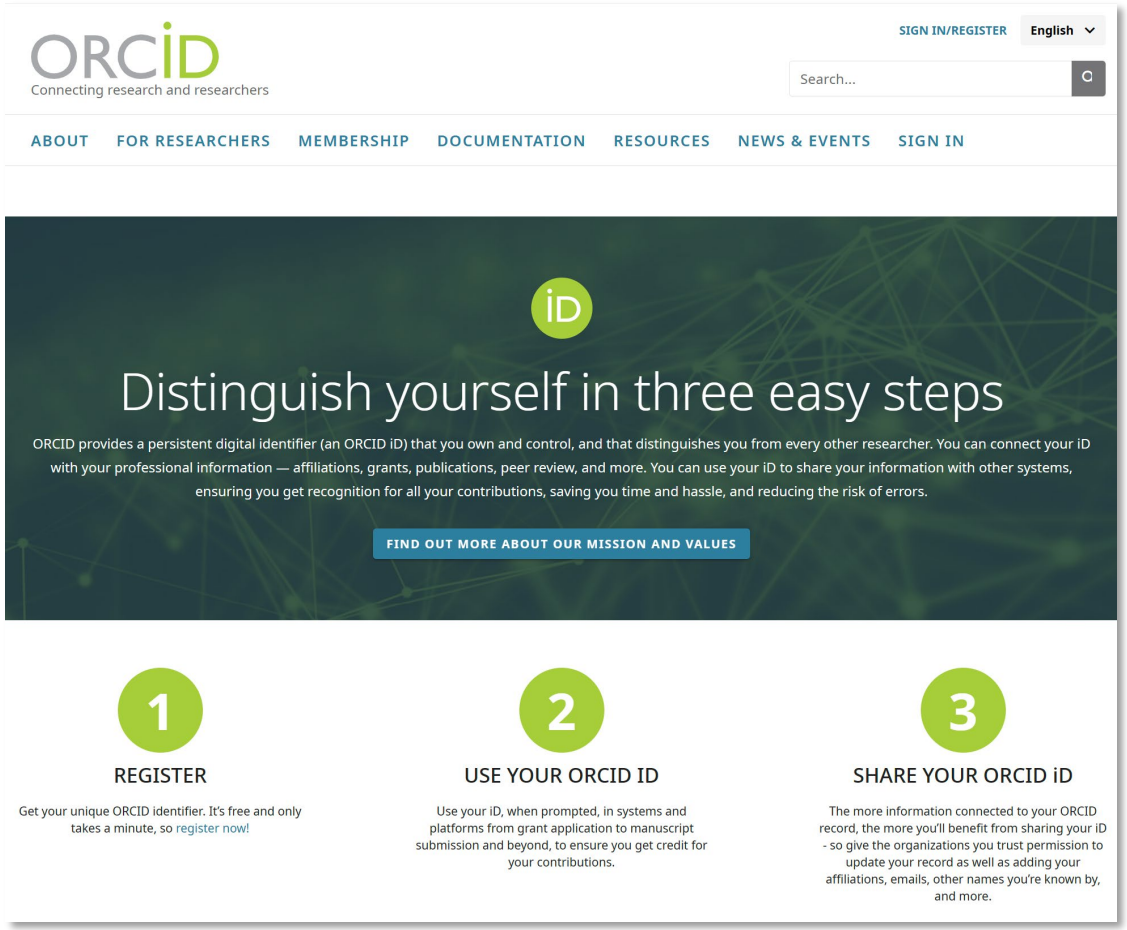
Peer review of project applications, manuscripts and policy documents

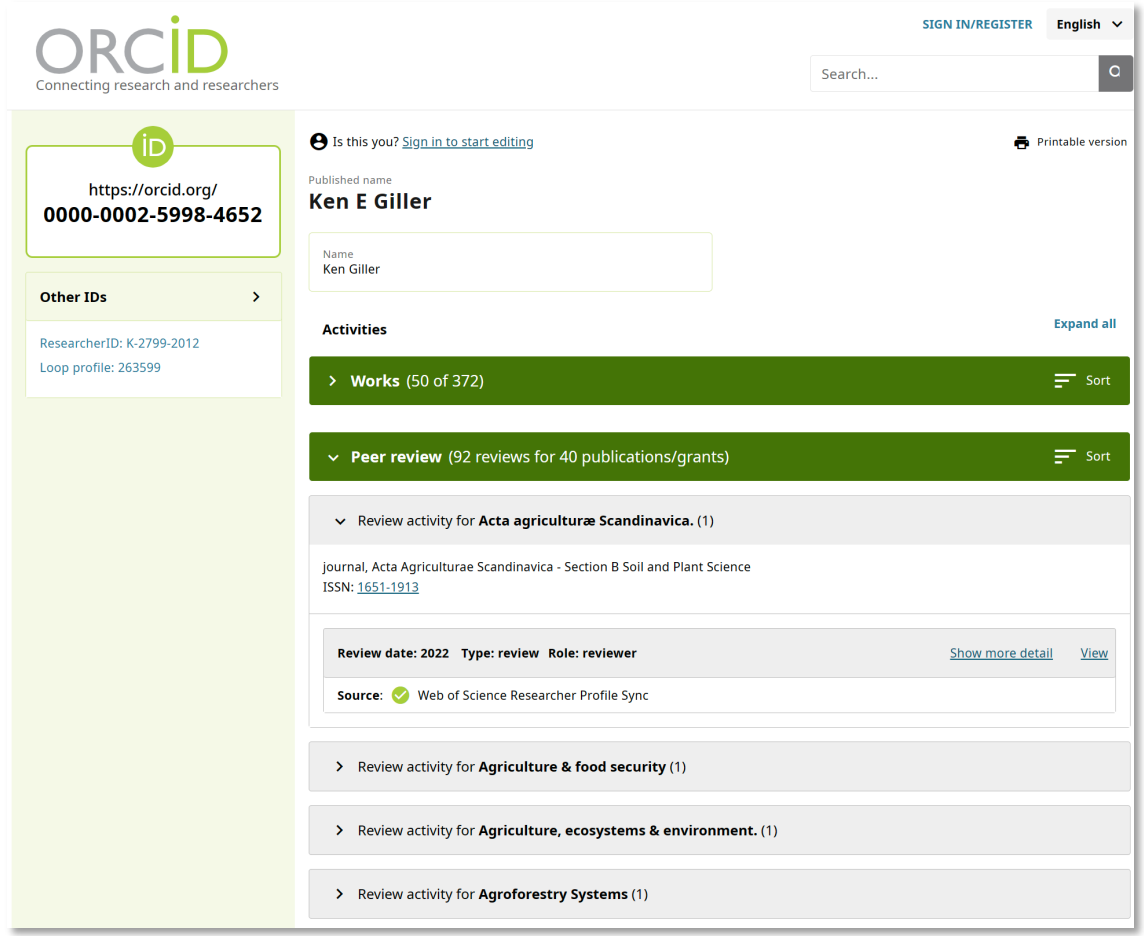
We strongly advise against entering a project application, manuscript or policy document as a reviewer in ChatGPT or similar 'non-privacy-friendly' platforms, for example to get a summary and then review it, as important aspects in the application could be missed which could make the review inaccurate. In addition, such documents are confidential.



WUR: Policy paper on the use of generative Artificial Intelligence tools in PhD research

Create an ORCID





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Some resources

- Nice quiz about peer review
- A good read about peer review for early career scientists
- Another good read about peer review
- History of Journal Peer Review: https://vimeo.com/216091379
- 12 Tips to Critically Review a Research Paper: https://publons.com/blog/how-to-critically-evaluate-a-manuscript-12-questions-you-should-always-ask-yourself/
- https://blogs.lse.ac.uk/impactofsocialsciences/2019/06/12/peer-review-is-not-just-quality-control-it-is-part-of-the-social-infrastructure-of-research/
- Elsevier's reviewers home: http://www.elsevier.com/reviewers
- Elsevier Researcher Academy: https://researcheracademy.elsevier.com/learn
- British Ecological Society https://www.britishecologicalsociety.org/wp-content/uploads/2016/04/Guide-to-Peer-Review.pdf
- Wiley Author Services: https://authorservices.wiley.com/Reviewers/journal-reviewers/index.html
- Bourne & Korngreen, 2006. Ten simple rules for reviewers. Plos Computational Biology, 2(9):e110. doi: 10.1371/journal.pcbi.0020110
- blog post about Publons: https://weblog.wur.eu/openscience/rewarding-your-peer-review-and-editorial-contributions-publons/
- blog post about Open Peer review (2022): https://weblog.wur.eu/openscience/open-peer-review/
- University of Manchester Library, My Research Essentials: Peer review. You can take the course here: https://www.escholar.manchester.ac.uk/learning-objects/mre/peer-review/story_html5.html

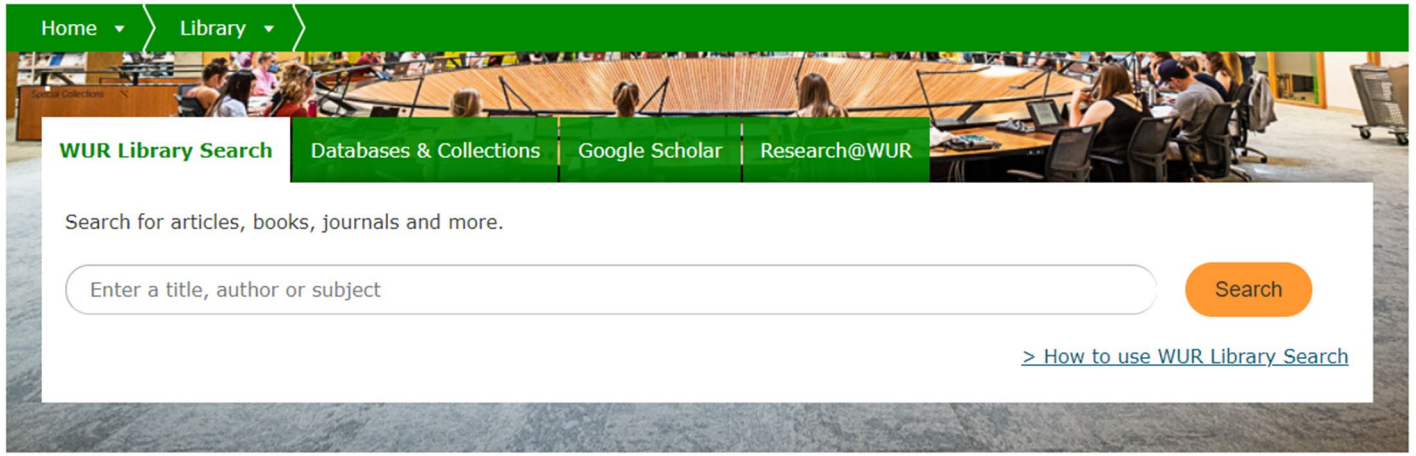
Thank you!



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II. How to Review