



Data Schools



Editorial/Review processes

May-July 2021

CODATA-RDA Data Science School South Africa Online

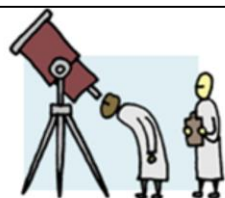


This presentation will provide a brief overview of the review processes that are followed by journals (both traditional and open) when these publications make use of the peer-review process. There are currently many concerns when it comes to peer-reviewing but it is still the best process that we have available to ensure quality in writing and reporting. I will also very briefly speak about the requirements when reporting to funders

Roadmap

- Peer review process (Pay wall vs Open processes)
- Emerald as example of 'closed' review
- Frontiers & PLOS as examples of open review
- Automating peer review (partially)
- Funder reporting

The intention here is to consider the peer review process in both paywall and open environments. I'll briefly mention the automation of the peer review of data. Lastly, we'll consider the reporting required by funders.



Scientists study something.

The peer review process



Scientists write about their results.



Journal editor receives an article and sends it out for peer review.



Peer reviewers read the article and provide feedback to the editor.

https://undsci.berkeley.edu/article/howscienceworks_16

Editor may send reviewer comments to the scientists who may then revise and resubmit the article for further review. If an article does not maintain sufficiently high scientific standards, it may be rejected at this point.



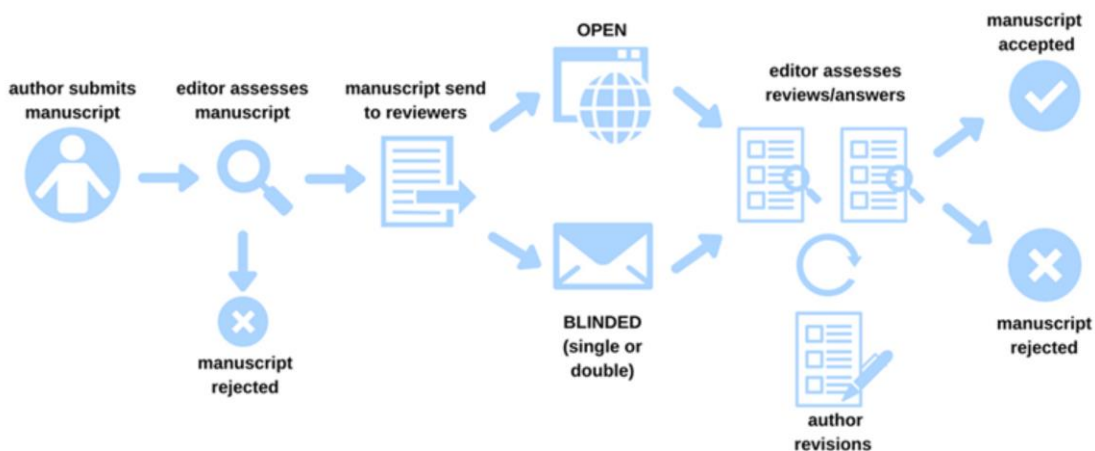
If an article finally meets editorial and peer standards it is published in a journal.



In brief, the peer-review process could be summarised as follows: the researcher conducts his research, he then writes up the findings and submits that to the journal editor for review. The journal editor checks whether the article meets basic requirements of the journal. If it does not there is an outright rejection. If the article appears sound it is sent for review by people that have a similar background to the researcher (his peers). These peers then read what was written and evaluate the article both for the correctness of the research methodology and the quality of the writing. They report back to the editor and a decision is then made whether the article should be rejected, whether it should be revised before publication or published as is (which almost never happens). From here on the editor communicates with the author/researcher. The editor may request a second round of review if major revisions were recommended. For smaller revisions the editor is responsible for the acceptance. The article is then language edited and is published.

Open vs blind peer review

Concept of open and blinded Peer Review

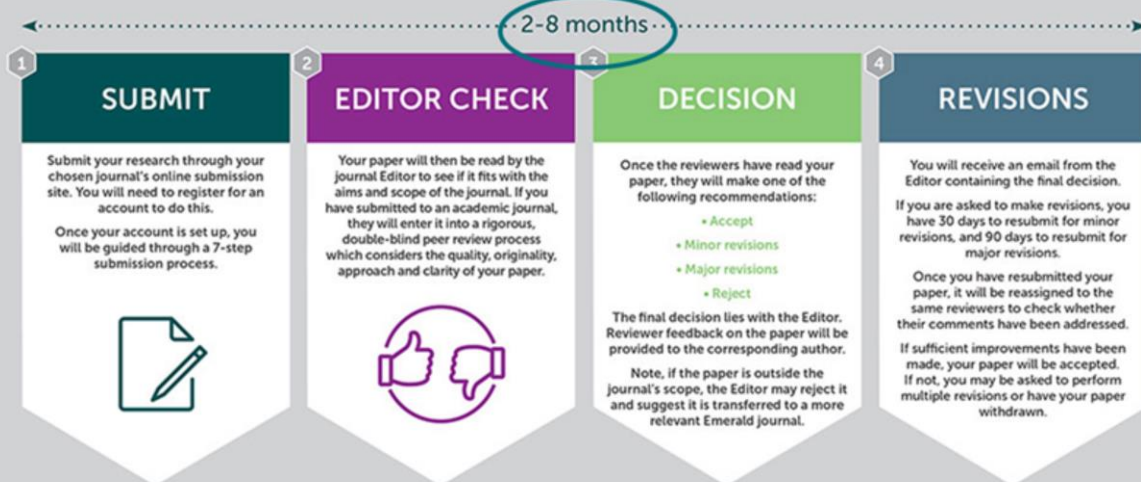


- Journals name make use of blind or open review. Blind review means that you do not know who the reviewers are. Double blind review means that the peers do not know who the author is and the author also does not know who the peers are. With open review the reviewers are known. Open peer reviewers could be appointed by the editor, as the Frontiers journals do, or the review process could be totally open and anyone may comment. Reviewers partially take responsibility for the journal quality.
- Note that reviewers usually do not get paid for the reviewing activity (although editorial staff usually are). The current trend is to give reviewers recognition for the work that they do by allowing them to make the review reports available as outputs and by linking these reviews to the relevant researcher ID (if they wish to do so).

THE JOURNAL PUBLISHING PROCESS



The speed with which your article appears online will depend on your chosen journal's publishing model. In the graphic below, we highlight the journey for a paper published in a journal offering article level publishing (ALP). We are in the process of rolling out ALP to all eligible Emerald titles and our goal is to have the majority of our journals on board by the end of 2018. For more information, visit our [EarlyCite page](#).

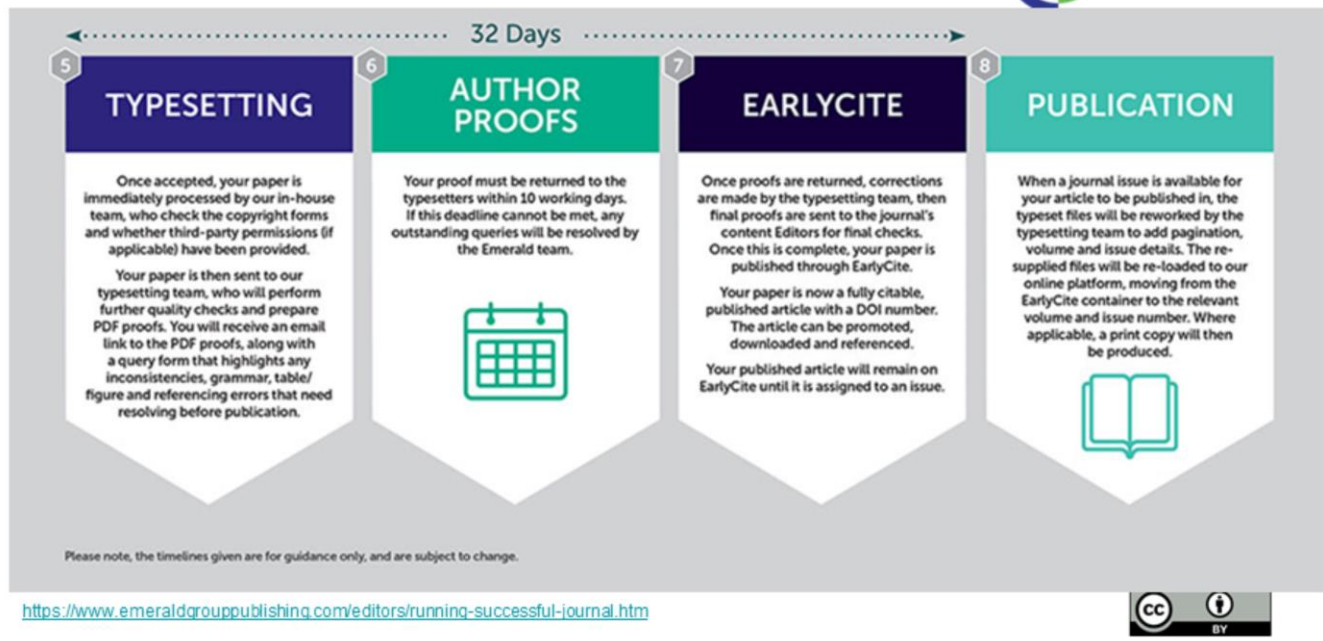


<https://www.emeraldgroupublishing.com/editors/running-successful-journal.htm>



- It is important to look for the author guidelines provided by the journal. It not only states the editorial requirements, it usually also indicates the reviewing process.
- As an aside: It is not your literature review that is the most important – your research results are what is interesting. It is also essential to make the article applicable to more people than your thesis/dissertation audience.
- Lastly, you will have an indication of the length of time the process is expected to take. Emerald serves here as an example. They follow the standard peer review process and the expected time period between the first submission and publication is two to eight months.

Emerald as an example (2)



- Emerald claims that the administrative process – after the article has been accepted for publication until it is actually published is 32 days.
- Note that many journals make available pre-publication copies of articles that are ready to be published but where the editor is finalising the journal.

Open peer review jargon (1)



- **Open identities:** Authors and reviewers are aware of each other's identity.
- **Open reports:** Review reports are published alongside the relevant article.
- **Open participation:** The wider community to able to contribute to the review process.
- **Open pre-review manuscripts:** Manuscripts are made immediately available (e.g., via pre-print servers like ArXiv or AfricXiv) in advance of any formal peer review procedures.

Source: <https://www.openaire.eu/blogs/defining-open-peer-review-part-one-competing-definitions-1>



Open peer review (2)



- **Open final-version commenting:** Review or commenting on final “version of record” publications.
- **Open interaction:** Direct reciprocal discussion between author(s) and reviewers, and/or between reviewers, is allowed and encouraged.
- **Open platforms:** Review is de-coupled from publishing in that it is facilitated by a different organizational entity than the venue of publication.

Source: <https://www.openaire.eu/blogs/defining-open-peer-review-part-one-competing-definitions-1>



[2020 Progress Report](#)[Coronavirus Knowledge Hub](#)[Diversity, inclusivity & Equity](#)[Policy Labs](#)[Top article collections](#)[Fast, rigorous review](#)[Outreach to kids](#)

FAST, RIGOROUS REVIEW

Collaborative peer review

> **Rigorous, constructive, efficient and transparent** peer review

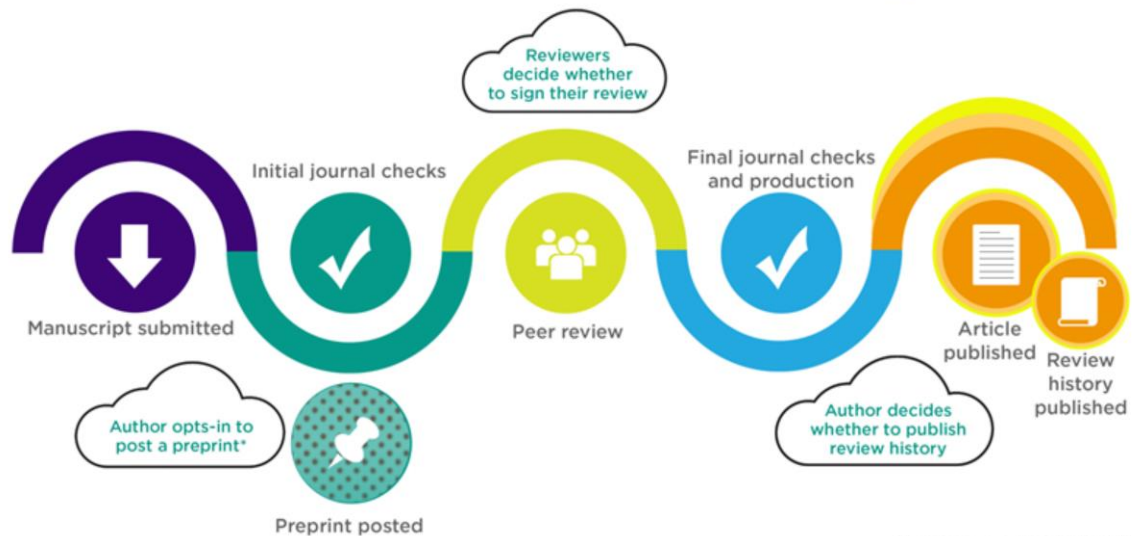
> **Reviewers and handling editor acknowledged** on all published articles

> **90 days** from submission to acceptance

[Learn more](#)

- 'Frontiers' serves as an example of a leading open access publisher.
- Frontiers journals credit all editors and reviewers – not only the authors.
- Their journals cover 900+ scientific disciplines.
- They claim that their publishing process takes 90 days.
- Transparency places quite a bit of pressure on the reviewers but I truly believe that it improves the quality of the reviewing.

Example: PLOS



* Preprint not offered for PLOS Medicine

<https://blogs.plos.org/plos/2019/05/plos-journals-now-open-for-published-peer-review/>



- PLOS: A non-profit, Open Access publisher empowering researchers to accelerate progress in science and medicine by leading the transformation in research communication.
- They allow the author to decide whether the reviews are published with the article or not.

Editorial flow chart – from submission to decision – small journal



<http://www.ijcset.com/editorial-process.php>

Look for the journal's review workflow



- Bottom line: Check the review process before deciding where to publish.

Automatic peer review



- Robien W. 2021. The Advantage of Automatic Peer-Reviewing of ^{13}C -NMR Reference Data Using the CSEARCH-Protocol. *Molecules*; 26(11):3413.
<https://doi.org/10.3390/molecules26113413>
- It is shown that the systematic application of the CSEARCH-Robot-Referee during the peer-reviewing process prohibits at least the most trivial assignment errors and wrong structure proposals.



- I came across this article while preparing these slides.
- Please read the article as this is the start of how peer review will in future be supported.
- Automation holds huge potential in stream-lining at least parts of peer review process which could be arduous. If it were possible to quickly investigate the data underpinning publications much reviewing time could be saved.



wellcome trust



Funder Compliance Reporting

5 AMAZING FUNDS THAT ARE MAKING A DIFFERENCE FOR WOMEN



BILL & MELINDA
GATES foundation



- Let's then turn to funder reporting and the processes associated with that.
- Note that funder reporting is usually NOT a peer review process. Here it is about ensuring that the administrators responsible for gaining an overview of the progress made on a research project understands the results.
- It is standard practice that such an administrative group would appoint a technical committee to evaluate the technical quality of the work that has been completed. In such cases both a technical report and a project progress report will be required.

READ the contract

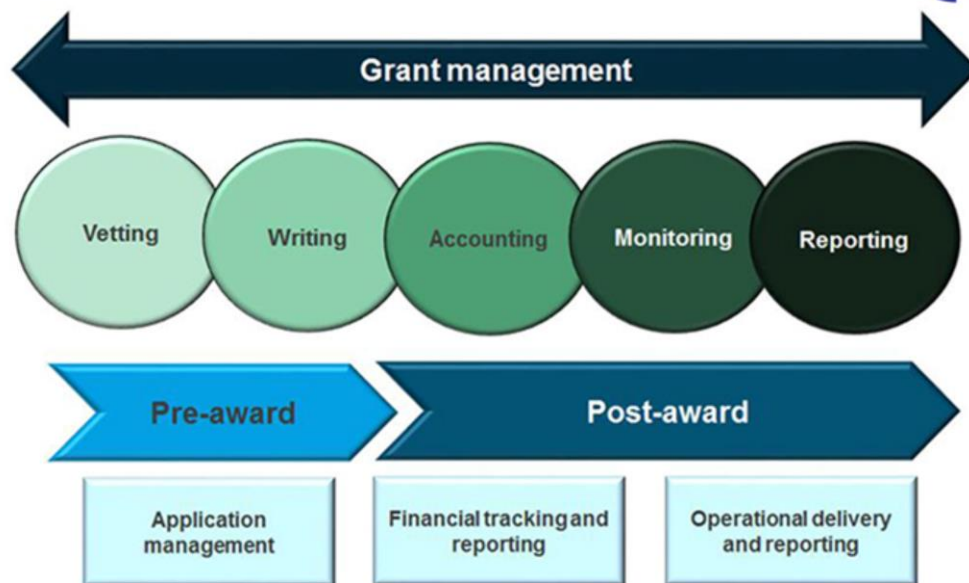


- Understand what the funder requires.
- Note the reporting frequency.
- Plan the reporting:
 - Design templates (if they are not provided)
 - Document important events/findings as they occur
 - Keep the report short but meaningful
 - Keep your financial management transparent
- Alert the funder if there are changes in plans. Negotiate!
- Provide value for money!



- Because funder reporting is very often NOT a peer review process. It is more about understanding the aims and objectives of the funder & then dovetailing that with your own research interests. Do not expect the funder to change their needs to serve your own. Note that the focus is here on reporting and not on proposal writing. Please provide some feedback via Slack if you think that we should in future also provide insight into proposal writing.
- To meet funder requirements the most important aspect is to take careful note of the reporting frequency & requirements BEFORE the project is initiated. It will save many painful hours later. Design templates (if they are not prescribed). Make sure that you understand what key issues need to be documented so that these could be documented as they occur. Keep the report short and meaningful and ensure that the financial reporting is transparent and accurate.
- Alert the funder, in writing, of any changes and make sure that all revised instructions are properly documented and recorded with the project contract. Changes to contracts are negotiations – do not accept changes without fully understanding the consequences. Successful reporting relies heavily on disciplined records keeping!

Funder compliance reporting



<https://rsmus.com/our-insights/newsletters/muse/strategies-for-streamlining-the-grant-management-process.html>



- The figure demonstrates the usual process for funder compliance reporting.
- Note that winning the grant is only the start of the writing process.
- If the accounting, monitoring and reporting aspects of research funding is underestimated, much valuable research time will be wasted when that time is most precious.
- Diligent record keeping and properly planned reporting are at the foundation of efficiency.

References



- Besançon, L., Rönnerberg, N., Löwgren, J. et al. 2020. Open up: a survey on open and non-anonymized peer reviewing. *Res Integr Peer Rev* 5, 8 <https://doi.org/10.1186/s41073-020-00094-z>
- Klöpffer, W., Sudström, G. & Griebhammer, R. 1996. The peer reviewing process — A case study. *Int. J. LCA* 1, 113–115. <https://doi.org/10.1007/BF02978657>
- Kramer, B. and Bosman, J., 2015. 101 innovations in scholarly communication: The changing research workflow. *poster*. <https://dx.doi.org/10.6084/m9.figshare.1286826>, p.v1.
- Wiley. 2019. The peer review process. [Online] Available at: <https://authorservices.wiley.com/Reviewers/journal-reviewers/what-is-peer-review/the-peer-review-process.html> [Accessed on: 18 December 2019]
- Elsevier. 2019. What is peer review?. [Online] Available at: <https://www.elsevier.com/reviewers/what-is-peer-review> [Accessed on: 18 December 2019]
- Robien W. 2021. The Advantage of Automatic Peer-Reviewing of ¹³C-NMR Reference Data Using the CSEARCH-Protocol. *Molecules*; 26(11):3413. <https://doi.org/10.3390/molecules26113413>
- Yang, C., Northcott, D. & Sinclair, R. 2017. The accountability information needs of key charity funders, *Public Money & Management*, 37:3, 173-180, DOI: [10.1080/09540962.2017.1281649](https://doi.org/10.1080/09540962.2017.1281649)



- Here are some references that you may find useful. Both peer review and funder reporting have extensive bodies of knowledge reported in the literature. I would suggest that you have a look at some of these articles before you start gaining experience in either.