

Strategies and practices for improving peer review

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Editing, Content & Publishing Services

Background and introduction



ABOUT INLEXIO

INLEXIO is an editing, content and publishing services company that helps journals, authors, and others. Since 2015, we have collaborated with individuals and organisations in North America, Europe and the Asia-Pacific.

Dr Dugald McGlashan

- Science: PhD (Griffith, Australia) + post-doc (Roscoff, France)
- Editing: CSIRO Publishing (EiC role)
- Publishing: NPG, NPG Language Editing, Springer, JST and many others

Dr Caroline Hadley

- Science: PhD (Warwick, UK) + post-doc (Heidelberg, Germany)
- Editing and Content: EMBO, Monash Univ, Univ Melbourne *et al.*, freelance
- Publishing: CSIRO Publishing, NPG Language Editing, NPG

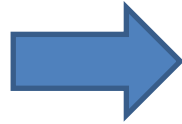
KEY ELEMENTS OF JOURNAL DEVELOPMENT



IMPROVING PEER REVIEW

What do we mean by 'improve'?

- faster and more efficient
- more transparent
- more effective
- more higher-quality reviews
- less inherent bias
- better decisions



Which leads to better published **articles** with:

- fewer errors
- more interest
- more insights
- more relevance

And better outcomes:

- better **authors** undertake better research
- better articles help **readers and users**
- better **journals**
- better **scholarly system**



TODAY'S TALK

How do the various players in the system contribute to and benefit from improved peer review?

- Editors and Editorial Boards
- Reviewers
- Authors
- Editorial Office.

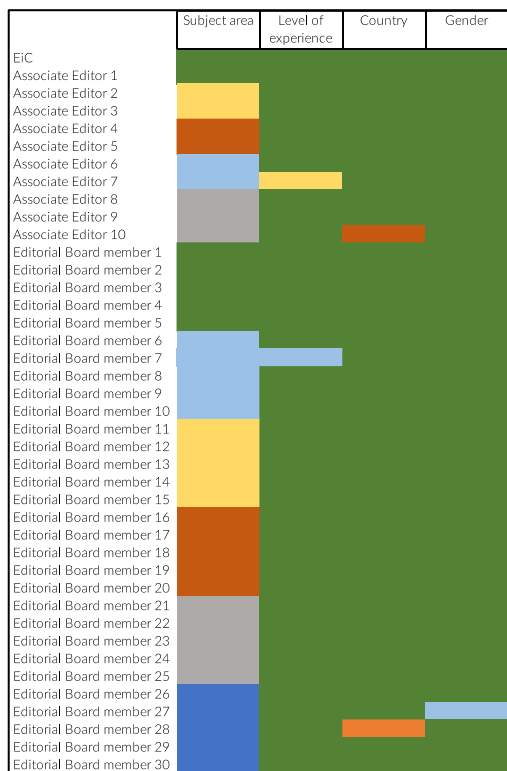
What are some new developments in peer review?

Editors and Editorial Boards

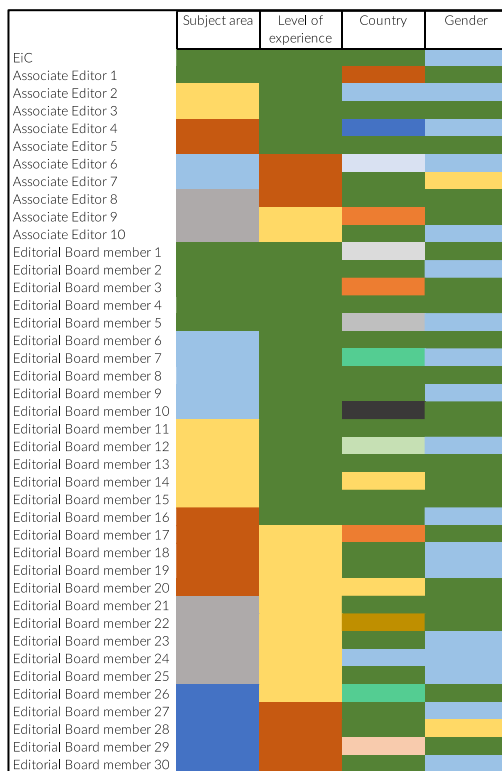


EDITORIAL BOARD STRUCTURE

Many boards look like this:



When they should look more like this:



A diverse board with a range of skills, experience, and perspectives means:

- less potential bias
- more expertise at your disposal
- different skills and perspectives for different problems
- wider network for the journal

Note:

Peer Review Week 2021:
Identity in Peer Review

EDITORIAL BOARD GOVERNANCE

Define EiC, Editor and other roles and responsibilities in a formal document:

- Term
- Strategy and participation
- Peer review
- Communication
- Manuscript commissioning
- Ethics.

Prepare an up-to-date and complete Instructions to Authors (and perhaps Guide to Editors)

Maintain a 'wall' between any business or executive roles and editorial-decision roles

EDITORIAL BOARD DEVELOPMENT

Journals should:

- enable editorial progression
e.g. good, keen, active reviewers → Ed Board; active on Ed Board → Associate Editor; Associate Editor → Editor-in-Chief (EiC)
- engage with editors regularly
e.g. annual or semi-annual reports; email updates of the journal's activities; interesting board meetings
- encourage active networking
'an editor is as good as their address book'
- change structures as necessary as the journal grows

EFFECTIVE EDITORIAL BOARD MEETINGS

- Have (at least) annual meetings; send annual statistics before the meeting. Briefly discuss highlights and concerns.
- Present annual initiatives, with a briefing paper sent well before the meeting
 - e.g. what are the journal's acceptance criteria, what will be important areas of research in 5 or 10 years, who are the people doing the interesting research?
- Set a clear agenda and proposed outcomes of the meeting
- Conduct a short poll about a relevant issue via email, with the results presented at the meeting
- Provide the opportunity for all members to speak at least once
- Limit the number of attendees to the most active and engaged editors – perhaps up to ~10

ACCEPTANCE CRITERIA

Why are acceptance criteria so important for improving a journal?

- They underpin authors', reviewers', editors' and readers' understanding of the journal
- They provide the underlying guidance for consistent editorial decision-making.
- They provide a clear roadmap for working through difficult decisions or disputed outcomes.
- They send a reputational signal to authors and readers.

7 ELEMENTS OF ACCEPTANCE CRITERIA

Subject area

Technical elements

Scientific rigor

Novelty

Significance and importance

Writing quality

Interest

“Quality”

Peer review and published articles should always be underpinned by the highest ethical standards from all parties.

APPLYING ACCEPTANCE CRITERIA

Variable application and weighting of the 7 elements **between journals** leads to differentiation and a diverse journal ecosystem.

Consistent application of the 7 elements across all papers **within a journal** leads to a better journal with happier authors.

- Journals should ensure that authors, reviewers, editors and others understand how the acceptance criteria are implemented (including changes over time)

PEER REVIEW OVERVIEW

Aims:

Select the submitted manuscripts that best fit the acceptance criteria.

Make appropriate, consistent and timely decisions through:

- equally applying the acceptance criteria across all manuscripts – including those submitted in another language
- documented and full peer review of all manuscripts – including secondary publications
- frequent and free discussion between the EiC and AEs about aspects of each manuscript and the journal, as relevant (in confidence)
- thorough and professional, but approachable, communication with authors and reviewers
- an efficient Editorial Office.

OTHER MODELS AND ISSUES

Secondary publications

Journals may re-publish articles, e.g. translations, guidelines, etc. This can disseminate important information to audiences that are unable to access the original article (e.g. due to language barriers).

- Ensure the journal has transparent, published policies
- Consult ICJME for detailed guidelines¹

Submissions in more than one language

Journals may allow submissions in different languages (e.g. English or Japanese). This can provide a valuable service to disadvantaged groups of authors.

- Ensure the journal has transparent, published policies
- Translate all articles upon initial submission and then peer review in English to ensure the same potential pool of reviewers is used for all manuscripts
- Ideally, keep the translation service separate from the peer review process.

¹ <http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/overlapping-publications.html>

PEER REVIEW PROCESS - OVERVIEW

Step 1: Assessing technical elements – Editorial Office

- Ensure all the basic elements are attended to as per the ITA.

Step 2: Performing initial triage – Editor-in-Chief

- Check for scope, clear flaws, significance
- Reject manuscripts before peer review that are clearly not suitable. This decreases the average turnaround time, allows authors to quickly move on, and decreases the burden on the journal's reviewers.

Step 3: Peer reviewing suitable manuscripts – Associate Editors

- Find reviewers who are external and independent of the journal
- Obtain at least 2 reviews per manuscript
- Make a recommendation/decision and justification for it
- Summarize the manuscript and the reviews
- Add comments to the author(s)
- Outline any potential ethical concerns in either the research or the manuscript.

WHAT MAKES A GOOD DECISION?

- consistent and appropriate application of the acceptance criteria
- an understanding of the perceptions of the reviewers of the journal
- judgements about the quality of the reviews; find more reviews if necessary
- avoidance of any 'voting' mechanisms based on reviewer recommendations: judgment should be made by the more-informed Editors who consider the:
 - manuscript, reviews, author responses and any recommendations
 - competition for limited space in the journal
 - manuscript's place relative to the overall field of research
 - journal's overall scope, aims and ambitions, development stage→ Reviewers provide feedback and advice, they don't make the decision
- providing constructive feedback to authors: helping and developing authors improves their future work

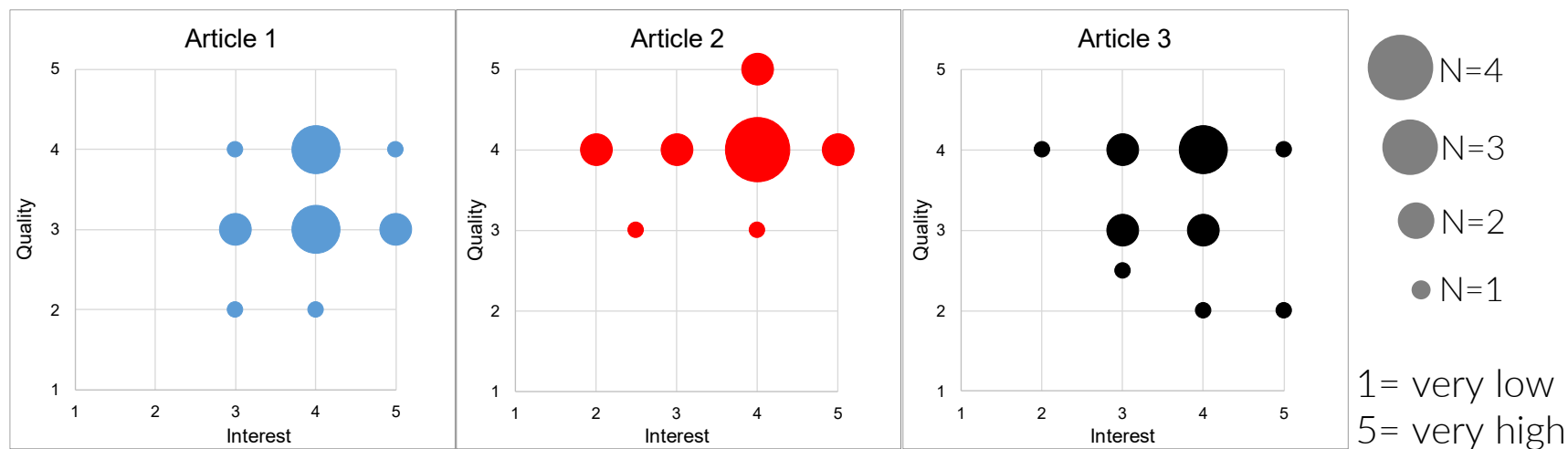
DECISIONS AMONG EDITORS VARY

Editor survey

Method: 14 Editors rated 3 articles for quality and interest from 'very low' to 'very high'.

Editors used their current understanding of the meaning of 'quality' and 'interest' in relation to the subject field and the journals within it.

Results: Each dot is a count of the editors' assessments



RECOMMENDATION METHODS

Criteria	Very good	Good – OK	Poor
Ethics		Compliant	Not compliant
Subject		Within scope	Not in scope
Technical elements		Compliant	Not compliant
Scientific rigor	High	Medium	Low
Novelty	Startling	Original application or data	Not original; incremental
Interest	Broad, interdisciplinary, wide, strong	Of interest to some or many	Only of interest to a few
Significance and importance	Vital, compelling, unusually significant	Essential, useful	Not significant
Presentation clarity	Excellent	Good	Poor

Outcomes

Potential!

Accept

Can the MS be improved? How?

Reject

DIFFICULT RECOMMENDATIONS

Manuscripts that are borderline:

- can they be made suitable with changes? If so, ask for revision.
- reasonable author expectations need to be managed: change to the stringency of acceptance criteria can happen, but not too fast
- publishing one poor article can cause large reputational damage.

EXPEDITING THE REVIEW PROCESS

- Aim for time from submission to first decision of ≤ 30 days (ave.)
- Expedite manuscripts that are clearly outstanding:
 - Prioritize actions for the manuscript throughout the process
 - Editors can use their knowledge of the best reviewers (response time and content)
 - Good articles tend to take less time to review!
- Aim to spend more time on good material, not poor material
- Make the *best* decision on each manuscript, not necessarily the *fastest*

COMMUNICATION

Communication among Editors should be considered, within the ethical guidelines.

- Extra opinions on difficult manuscripts, especially early in Editors' tenures, can help make better decisions
- Communication among Editors promotes common application of the acceptance criteria
- Time intensive, but leads to longer-term efficiency
- Suggest using functions of ScholarOne to communicate (more secure, allows for a record of actions).

Reviewers



FINDING REVIEWERS

Desired characteristics of reviewers:

- Knowledge of field: expertise, experience and reputation
- Independent of the journal
- Relevant publication record (which journals, how often, how recent)
- Previous high-quality report(s) and reliability (via your own knowledge)
- No conflicts of interest with the authors or the study (check for author declarations, the Acknowledgments and References sections)
- Mix of expertise, geography, experience to cover different aspects of the study

Note:

- International reviewers provide a range of perspectives, demonstrate the journal is international, and helps raise awareness of the journal.
- Students or postdocs of assigned reviewers are OK if they are supervised and informed about the confidentiality and ethical considerations, and if the assigned reviewer checks their final report.

HELPING PEER REVIEWERS

Publish a **Guide to Reviewers** to:

- guide reviewers' perceptions of the journal and its aims and ambitions
 - describe the journal's acceptance criteria
 - detail the need for impartial, ethical, reasonable and constructive comments
 - establish the journal's expectations and build trust in the peer-review process.
- an active and effective Editorial Board is needed to decide on policies set out in the Guide to Reviewers.

WHAT MAKES A GOOD REVIEW?

A good review:

- attends explicitly to the journal's criteria: originality and importance of the research question, strengths and weaknesses of the methods, data, interpretation and presentation (writing, context, organization, etc.)
- is clear, concise and constructive
- substantiates criticism – and directs it at the research
- makes clear arguments for or against publication
- summarizes a manuscript's contribution to the field, outlines how it might be improved, and offers potential remedies to fix the flaws
- declares any conflicts of interest.

See also e.g. <https://jamanetwork.com/journals/jama/fullarticle/187762>

WHAT MAKES A BAD REVIEW?

Sometimes, reviewers will submit reviews that:

- do not provide adequate support for criticisms
- are simple statements to accept or reject – they lack detail
- are offensive, insulting, '*ad hominem*' attacks etc.

To manage reviews that lack quality or rigor, the Editor should assess whether it is necessary to invite another reviewer.

Editing reviewers' comments is acceptable if they are insulting to the authors or otherwise inappropriate. This should be made clear in the Instructions to Authors and Guide to Reviewers.

Authors



WHAT AUTHORS WANT

Authors want the peer-review process to be:

- fair
- fast
- rigorous
- reasonable
- transparent (in process)
- consistent
- constructive, helpful, beneficial

Even if they are rejected!

COMMUNICATING WITH AUTHORS

When communicating with authors:

- Be clear, concise, polite and as complete as possible
- Manage author expectations and be transparent about any extra work that is required
- Identify the important points that need to be addressed for 'revise' decisions
- Provide brief, but defensible reasons for rejections
- Be aware of and address changes in journal criteria, if necessary
- Allow appeals for genuine cases of error, or in other valid circumstances.

Editorial Office



ENHANCING OPERATIONS

The Editorial Office has a vital role in peer review, through:

- checking initial submissions against the relevant criteria
- managing the manuscript tracking system (e.g. Scholar One, Editorial Manager)
- collecting relevant forms from authors
- preparing standard MTS letters, statistics and reports
- coordinating and enhancing communication between the Editors, EiC, authors and reviewers

Ensure the Editorial Office contact details are readily available on websites, ITAs and in the journal.

Developments in peer review



DEVELOPMENTS

Codification, standardization, benchmarking

- Ethics – e.g. Committee on Publication Ethics (COPE) and others
- Peer Review Taxonomy (<https://osf.io/aynr5/>)
- Databases of policies – e.g. TRANSPOSE (<https://transpose-publishing.github.io/#/>)

New models of peer review

- Open peer review – e.g. F1000, PLOS, others
- Parallel peer review – e.g. Community Review (<https://www.cell.com/community-review>)
- Portable peer review – e.g. Review Commons (<https://www.reviewcommons.org/>)

Preprints

- Overlay journals and ‘editorial prospecting’ – e.g. JMIRx (<https://xmed.jmir.org/>)
- ‘Publish then review’ – eLIFE initiative (<https://elifesciences.org/articles/64910>)

Technology

- Automated tools and Artificial Intelligence – e.g. Unsilo (<https://unsilo.ai/>)
- Credit and tracking – e.g. Clarivate Analytics: Publons (<https://publons.com>)

CONCLUSIONS

- Have clear aims and ambitions for, and of, the journal
- Be transparent about journal policies and procedures
- Prepare and implement explicit acceptance criteria
- Enhance communication between all parties
- Be aware of developments in peer review

ありがとうございました！ THANK YOU!

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