Tackling information overload: identifying preprint reviewers

Key questions to be addressed during peer review

preprint	criterion	manuscript
important	is the science sound	important
important	is it clearly documented	important
important	is it clearly explained/ contextualized	important
important	are associated materials shared appropriately	important
important	is it reproducible	important
important	is it free of scientific errors/ plagiarism/ fakes	important
important	is it linguistically correct	important
Not important	is it novel	important
Not important	does it fit the scope of the journal	important
Not important	is it likely to have impact	important

Key differences between electronic preprints and manuscripts submitted for journal peer review

preprints	criterion	manuscripts
public & online	accessibility	confidential
can be clear	licensing	unclear
often possible	mining	unclear/ confidential
often possible	tagging/ annotation	unclear/ confidential
often possible	commenting	unclear/ confidential
PDF & often web-based	file format	PDF & usually offline
flexible	timing of the review	narrow window
flexible	number of reviewers	small
any part	scope of review	entire manuscript & add-ons

Criteria that can be leveraged for preprint peer review

preprints	criterion	Implications for the review process
public & online	accessibility	Reviewers can find, read & comment before they review
can be clear	licensing	Open licenses allow reuse, which increases visibility
often possible	mining	Allows to find and display similar works based on text, ref
often possible	tagging/ annotation	Can be done collaboratively, facilitates exploration
often possible	commenting	Quality of comments predicts quality of potential reviews
PDF & often web-based	file format	PDF often unwieldy; web-based better for engagement
flexible	timing of the review	Can accommodate reviewer availability better
flexible	number of reviewers	Potentially many, with complementing expertise
any part	scope of review	Reviewers can focus on what's important to them

How to use the criteria to find reviewers for preprints

preprints	criterion	Implications for finding reviewers
public & online	accessibility	Link to the work can be shared widely
can be clear	licensing	Open licenses allow reuse & adaptation, greater visibility
often possible	mining	Can help find reviewers/ commenters of similar work
often possible	tagging/ annotation	Can help navigate/ identify parts of interest
often possible	commenting	Some commenters might be suitable reviewers
PDF & often web-based	file format	Web-based formats can be repackaged into feeds
flexible	timing of the review	Outreach to potential reviewers can happen early & often
flexible	number of reviewers	Perhaps 1-2 per core section, recruited by expertise
any part	scope of review	Reviewers can focus on what's not been reviewed

How can preprint servers attract reviewers?

- Default to open licenses and formats, so as to allow
 - reposting
 - reusing
 - repackaging
- Make it easy to find out which aspects of a preprint are most in need of review
- Make it easy to annotate preprints by
 - having HTML versions and
 - enabling Hypothes.is
 - which can also be used for tagging
- Replace tracking tools like DISQUS with non-tracking ones for commenting
- Make it easy to subscribe to content alerts using specific filters, e.g.
 - o mentions of concept X in section Y, e.g.
 - a particular cell line in the methods section
 - a specific author or institution in the article metadata
 - a specific set of papers or datasets cited in the reference section
 - o preprints/ papers with high similarity to a given piece of text (similar to <u>JANE</u>)

Questions & discussion

Thank you!

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Daniel Mietchen daniel.mietchen@virginia.edu @EvoMRI