Crowdsourced Peer Review

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Definitions

- Crowdsourced: the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people and especially from the online community rather than from traditional employees or suppliers (Google definition)
Definitions

Crowdsourced peer review definition: a public review process in which any community member may contribute to the article review. In crowd-sourced review there is no limit to the number of comments or reviews an article may receive."


Courtesy of NLM, circa 1900
Definitions

• Post-publication Peer Review (PPPR): The review of scholarly content after publication
  • Possibly coined by Kent Anderson while at Pediatrics in 1999
  • Anderson later surmised that these PPPR reports were nothing more than e-letters.
  • In 2014, he argued that PPPR should be more formal but that cat may have been out of the bag
  • Researchers are calling online comments PPPR
Definitions

- Retronymn: renaming something old because of new inventions. Example: Analog clocks were just clocks until digital clocks were invented. Now more terms are needed to distinguish.

Crowdsourced Peer Review =

Post-publication Peer Review =

Online commenting
Crowdsourced Editing

• Wikipedia
  • Anyone can edit a page
  • Wiki parties
  • Political sabotage
  • Brand malignment

“Wikipedia went from people writing an encyclopedia to people writing rules about writing an encyclopedia, or writing bots to defend an encyclopedia, but without enough safeguards to save content from deletionists.”

James, A. 2017. “Watching Wikipedia’s extinction event from a distance.”
http://boingboing.net/2017/02/14/watching-wikipedias-extincti.html
History

- The scholarly publishing process includes discussion of published results
  - Letters to the Editor, Discussions/Closures, etc.
  - PROS: They are peer reviewed and should add something to the literature. They can be cited.
  - CONS: “Open” discussion periods are short and submission process can be cumbersome

- Digital publishing opened door to online comments.
  - Many journals tried…and failed.
  - PROS: Faster and available to many more people. Discussion period open longer/forever.
  - CONS: Engagement is low and journals needed to moderate (labor intensive).
Recent Timeline

2002: BioMed Central
2008: PLOS One Comment
2012: PubPeer
2013: PubMed Commons
2014: ResearchGate, ScienceOpen
Early Online Comments

http://blogs.nature.com/nascent/2009/02/commenting_on_scientific_artic.html
Commenting on Journal Platforms

- **PLOS**
  - **Who can comment?:** any registered users
  - **Anonymous?:** registered users are to be unambiguous about who they are and requires competing interest statement. Could register fake name.
  - **Moderated?:** after posting
  - **Rate of comments:** ??

![Commenting on Journal Platforms](image-url)
Commenting on Journal Platforms

- **Faculty1000 Research**
  - Papers are published online and peer reviewed in an open format
  - Once enough approvals are obtained by reviewers (suggested by authors and invited by the journal), the paper is indexed
  - At any time, readers can comment as well.
  - **Who can comment?:** any registered users
  - **Anonymous?:** no
  - **Moderated?:** yes
  - **Rate of comments:** Unable to filter.
Commenting on Journal Platforms

• European Geosciences Union
  • Similar to F1000 Research: Posts paper, crowdsources comments, authors revise paper, reviewers conduct peer review, paper accepted or not. Everything is posted online.

• Challenge with EGU and F1000
  • What happens to a posted paper that no one wants to review?
  • What happens if it fails review and now stays on the site as a rejected paper?
Commenting on Databases

- PubMed Commons
  - **Who can comment?**: you must have an account (req. being an au of a paper in PubMed)
  - **Anonymous?**: no
  - **Moderated?**: no
  - **Rate of comments**: Contains 27 million records. About 5100 of those have comments
Commenting on Databases

• **ScienceOpen**
  - Culling content from lots of sources (PubMed, ArXiv, Crossref)
  - Publishes “comments” and “reviews”. Unclear on the difference. Anyone can do either.

• **Who can comment?**: any registered user

• **Anonymous?**: no, but users can register fake names

• **Moderated?**: no

• **Rate of comments**: Contains 28 million records, 3 million of which are OA. Removing the reviews for their own journal, the site has 11 papers with reviews. Not clear on comments.
Commenting on Third Party Sites

• PubPeer: ...PubPeer is to foster a scientific environment where robust, high-quality research is valued, while providing a forum to discuss the problems of unreproducible, misleading, misconceived or fraudulent work. By commenting on publications both positively and negatively we add another dimension to an article's "impact" that is independent of the name of the journal in which it was published.
  • Comments are moderated.
  • Comments can be anonymous.
  • Hard to determine total comments on platform because they are pulling in PubMed Commons comments.
Other Forms of Commenting

• Blogs
  • Research discussed broadly within a community with context added by blog writer
  • PRO: Free of the confines of the journal; already belongs in a community
  • CON: May not get a whole lot of comments

• “News” sites
  • Website or online publications that write about research.
  • PRO: Wider audience for commenting
  • CON: Avg. reader of LA Times may not be the best source of commenting on scholarly content, trolls
Trends and Successes

• Commenting on Journal Platforms is very limited
  • Comments can be inflammatory
  • Journals don’t want to be in the middle of authors and readers
  • Journals more comfortable with the Editors controlling the narrative
  • Basic risk aversion

• Commenting on database platforms is slightly “more” popular
  • Many people are looking for papers and accessing papers from Pubmed
  • ScienceOpen is attempting to replace WOS and Scopus as a subscription-based database; but trying to be a lot of things simultaneously
Why More People Don’t Comment

• If you are reading a paper, why not write a review of it?
  • Time
  • You may skim papers looking for nuggets of info and a review requires more detailed report
  • Many comments are left hanging

• Motivation is lacking

• Very public (non-anonymous)
  • Early Career Researchers
  • Researchers seeking tenure
  • Government researchers

• Readers who feel strongly may write a Letter to the Editor or a Discussion and perhaps get cited
Problems with Commenting
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Problems with Commenting

News: *Popular Science* Turns Off Commenting

“The editors argued that Internet comments, particularly anonymous ones, undermine the integrity of science and lead to a culture of aggression and mockery that hinders substantive discourse.”

(http://www.newyorker.com/tech/elements/the-psychology-of-online-comments)
Problems with Commenting

“Today’s commentators seem to have many axes to grind. Far too often, commentary forums degrade into polemical attacks with win or lose dynamics at their heart. The pursuit of knowledge and science isn’t the goal. Capitulation of one combatant to another is.”

Kent Anderson (https://scholarlykitchen.sspnet.org/2014/04/15/stick-to-your-ribs-the-problems-with-calling-comments-post-publication-peer-review/)
Problems with Comments

“One of the most important controls of our behavior is the established norms within any given community. For the most part, we act consistently with the space and the situation; a football game is different from a wedding, usually. The same phenomenon may come into play in different online forums, in which the tone of existing comments and the publication itself may set the pace for a majority of subsequent interactions.”

http://www.newyorker.com/tech/elements/the-psychology-of-online-comments
Problems with Scholarly Commenting

- Anonymous Commenting: easier for personal ax grinding
- Loose verification of commenter
- COIs not disclosed
- Amazon reviews model
  - Recently argued that this would be a good idea
  - Readers can be swayed by comments that have not been moderated
  - Value of comments is only a snapshot in time
  - Amazon typically provides hundreds of reviews
  - Amazon adds “verified buyer” to some reviews
- Tennant: http://blogs.lse.ac.uk/impactofsocialsciences/2017/04/12/what-are-the-barriers-to-post-publication-peer-review/
What Is the Goal?

• Provide individuals with a forum to discuss scholarly content
  • Encourage rich additions to the discussion
  • Collaboratively take research to the next level
  • Provide a window into what the authors were thinking
  • Engage readers (sticky pages)

• Ensure that this forum is safe...for authors and users!

• Increase engagement and promote membership
What Works

• Rich discussions of research happens in communities

• Journals build community but that community protects itself from outside comments

• Papers/research is discussed in safer platforms (well known blogs, LinkedIn groups, society platforms, conferences)

• Societies using tools like HigherLogic and Trellis (AAAS) to replicate those communities of members online

• CONS: These are closed groups with limited memberships
Emily Leonard posted a new update in AAAS Forum on Implicit Bias in Peer Review
3 weeks ago

This study uses public information to analyze the effects of bias based on the reviewer. Though bias is often difficult to verify, the researchers observed an under-representation of women, and a distinct correlation between the gender of the reviewer and that of the author.

eLIFE Gender bias in scholarly peer review

Cite as eLife 2017:6:e21718 Peer review has an important role in improving the quality of research papers. It is the "lifeblood of
ASCE CROSS DIVISIONAL TEAM

LATEST DISCUSSION POSTS

RE: THOUGHTS ON NEXT MEETING
BY: CHARLES DINGES, ONE MONTH AGO
There is no set schedule. I have been overbooked for 2 weeks but I should be free to assist (if that is desired) by next week. Charles V. "Casey" Dinges IV Senior Managing Director Public Affairs, Membership, Leadership & Programs...

LATEST SHARED FILES

FOCUS SESSION ON YM USE OF TECHNICAL CONTENT - 201...
BY: LESLIE PAYNE, YESTERDAY

STUDENT AND YOUNGER MEMBER COMMUNICATION STRATEGY
BY: LESLIE PAYNE, YESTERDAY
and compliance by researchers who may not be familiar with the language of standard legal contracts, including brevity, the use of clear and simple language, and limiting the contract’s content to essential elements, to “reduce time for negotiation between the study administrators and researchers” (Knoppers et al. 2013). We also drew on our experience with the International Cancer Genome Consortium (ICGC) Data Access Compliance Office (Milius et al. 2014).1

We discuss provisions of the EMC DAA here as we hope they may be of use to other institutions aiming to keep data protected while still encouraging innovative research. Furthermore, concerns over the lack of consistency in data access principles and agreements have been reported, even within programs, and these may be addressed through greater access to and explanation of existing policies and DAAs (Lowrance 2006). The EMC DAA is available on the EMC Data Access Policy web page.  

1YJ is the ICGC Data Access Officer and a member of the ICGC Ethics and Policy Committee. SD is a former member of the ICGC Ethics and Policy Committee (2009–2013) and the ICGC Data Access Committee (2014–2015). GB is a member of the ICGC Data Coordination and Management Working Group.

A broad range of data users

Next article: Communicating science: Sending the right message to the right audience
Thanks!

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