**Commonplace**

# Meta-Experiment on Peer Review

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This *Commonplace* Series on Peer Review aims to foster discussion on innovative peer review models designed to make published information more useful and reusable within the scholarly community. The mission of the open access movement involves more than mere accessibility and final publication outcomes; it must represent a comprehensive methodology and guiding principle applicable to all stages of the publication process, from manuscript submission to sharing final research findings. Failure to do so could result in contradictory and incomplete implementation of open access principles. Continuing the discourse from our previous issue on promotion, tenure, and academic recognition models, we address the problematic "publish or perish" mentality and the gatekeeping dynamics in scientific dissemination, where peer review serves as a major gatekeeper for both quality and quantity.

Given the ongoing need to extend open access principles throughout the entire editorial workflow, our discussion focuses on enhancing accessibility during the critical phase of peer review. Despite its significance, peer review's usage and purpose are often contested, with concerns about trust, bias, abuse, and reliability. This series aims to re-assess how the outcomes and the process of the peer review system can be structured to increase transparency and build trust in the publishing system.

With this Series, KF is developing a meta-experiment[1] on Peer Review to explore alternative and unconventional peer review models. We seek proposals that will be a part of this meta-experiment, undergoing an open peer review process characterized by a dynamic and transparent conversation between two reviewers which will be published alongside the original article.

## Considerations and guiding questions for the authors

- How does your proposed peer review model increase transparency and visibility of the review process?
- What mechanisms will you put in place to ensure feedback is constructive and collaborative?
- How does your proposal address the lack of formal recognition and reward for reviewers?
- What forms of incentivization, beyond traditional rewards, does your model incorporate to motivate reviewers?
- How does your model ensure an improvement in the quality of published articles?
- In what ways does your model strengthen community relations between authors, reviewers, and readers?
- What safeguards are in place to ensure that the open review process remains respectful and professional?
- How can we leverage the academic scientific system to initiate a cultural shift in the evaluation process of scientific papers?
- Other similar questions and topics.

## Key Dates and Timeline

- Submission due September 20, 2024
  - Submission portal to open in early September

- Decisions by the editors by September 27, 2024
- Reviewers invited October 1
- Reviewers comments due October 18
- Conversation window between October 22 - November 1
- Publication of series mid-November

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# Details on the Meta-Experiment

Peer review, the cornerstone of scholarly publishing, is undergoing a transformative shift towards a more collaborative and sustainable approach. Originally, peer review was intended as mutual control of scientific results by peers in the same discipline. However, the commercialization of scientific publishing has turned the process into a tool of a hyper-competitive industry, intertwined with academic career progression. Nowadays, peer review is described as a "black box" (Tennant et al., 2017); to address this, various scientific and not-scientific communities are increasingly experimenting with alternative methodologies aimed at maximizing peer review's effectiveness and impact beyond the publication lifespan.

The criticalities of the current traditional structure of peer review that are going to be addressed in this issue encompass several aspects, that can be identified as following:

## Inefficiency

The traditional peer review process proves to be inefficient for both structural and behavioral reasons. Its rigid framework, culminating in binary recommendations, does not foster a constructive dialogue. Authors often perceive the feedback as judgmental directives from an authoritative figure, which they feel compelled to address solely to achieve publication. Additionally, reviewers receive no formal recognition for their fundamental contributions to the scientific community. Their efforts are often unrewarded, both in terms of recognition and monetary compensation for the time and the effort invested. The issue of behavioral incentivization within the peer-review culture remains a subject of strong debate.

## Lack of transparency

Anonymized peer review lacks transparency: reviewers’ comments and recommendations are not shared with the audience, and their identities remain undisclosed to both the author and the readers. This lack of transparency contributes to the unrecognized role of reviewers in the publication process. Enhancing transparency could be the first step towards acknowledging the fundamental contributions of reviewers to scholarly publications. However, on the other hand, this anonymity also allows reviewers to be shielded from accountability when they provide low-quality or biased reviews. This lack of transparency undermines trust and reliability in the review process.

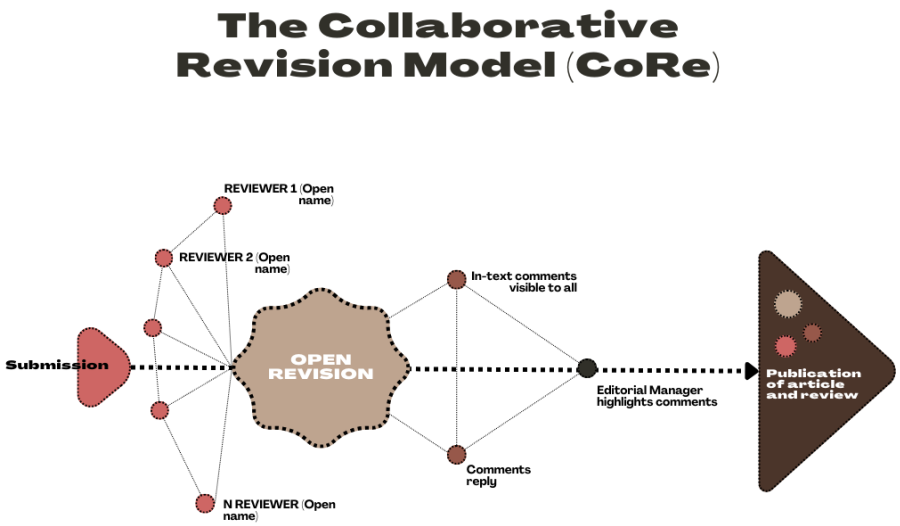
## Obsolescence

The content of reviews can be considered obsolete for two primary reasons. First, the comments and suggestions provided by reviewers are not made public, rendering them unusable and unreferenced in the broader scientific discourse. When reviews are made public, they are often uploaded online as a separate or supplemental document untethered from the original submission. This lack of visibility prevents valuable feedback from contributing to the ongoing academic conversation and hinders the accumulation of collective knowledge. Second, during the transition from the original submission to the revised version of the published article, there is a significant loss of context due to the inaccessibility of the review content. Without access to the review history, readers and future researchers miss out on understanding the evolution of the manuscript and the rationale behind the changes, further diminishing the potential impact and clarity of the publication process.n

Starting from this panorama of issues, the goal of this Series is to propose a dynamic and transformative perspective on peer review. We aim to introduce a flexible review format that emphasizes direct conversation between reviewers, fostering a more interactive and constructive evaluation process. This approach seeks to replace the traditional, rigid review system with a dynamic evaluation model that addresses specific review aspects in real-time. By moving away from a blind, static framework, we hope to create a more transparent, engaging, and effective review process that enhances the quality and impact of scholarly publications.

# The Collaborative Revision Model (CoRe Model)

The experimentation model prototyped for this series is an open review process based on dialogue between invited reviewers. This format enables authors to focus directly on the reviewers' comments, eliminating the subjectivity of major/minor revision labels. Consequently, reviewers are encouraged to provide detailed feedback rather than high-level judgments, allowing authors to engage deeply with the content of the comments themselves.




In this experimental approach, the conversation between reviewers will be published alongside the article. Authors are not required to submit a revised version of their paper, which incentivizes them to concentrate on their original submission. The hypothesis is that, over time, this approach will enhance the quality of published articles. Although it may result in fewer papers being published or require more time spent on data analysis, it addresses the issue of the overwhelming volume of published research. This workflow does put more initial responsibility onto the editor to make the initial decision for each submission as the reviewers are not obliged to suggest accept or reject.

This model aims to foster richer scholarly discourse and strengthen community relations between authors and reviewers. While there may be initial hesitation to make provocative statements in articles, the primary goal is to stimulate a robust scientific discussion around the research. The open conversation format encourages collaboration during the review process, akin to the collaborative nature of writing a paper.

After 15 days of open dialogue between reviewers, authors will gain access to these discussions, receiving a comprehensive synthesis of comments and suggestions, especially with the assistance of the editorial manager. This collaborative interaction enhances understanding and effectively addresses differing opinions among reviewers. It also allows the review process to be completed within a month, speeding up the publication timeline.

Additionally, the proposed model seeks to improve community relations by offering researchers a platform to communicate about cutting-edge research and new ideas. By publishing reviewers' names alongside the authors', it provides reviewers with recognition and credit for their contributions. This transparency enhances the long-term impact of reviewers' voices, making their work transparent, citable, and easily accessible. It also

encourages reviewers to frame their feedback constructively and sensitively, thereby reducing harsh or judgmental comments and making the review process more enjoyable.

Publishing the reviews also offers a valuable learning experience for readers, who can see what reviewers analyze in a research article. This insight helps authors anticipate the types of comments they might receive and teaches young researchers how to conduct peer reviews effectively. Just as readers are engaged by comments on social media posts, they will likely be intrigued by the public dialogue between authors and reviewers. We aim to recreate the same level of engagement seen on social platforms, where opinions, thoughts, and reflections spark vibrant discussions. On social media, there is often no formal reward for commenting; instead, the interaction and conversation with others make it more enjoyable. Similarly, we believe that this interactive review process can serve as a form of incentivization for reviewers. By fostering meaningful exchanges and collaborative dialogue, reviewers may find greater satisfaction and motivation in their contributions, enhancing the overall quality and impact of the peer review process.

## Footnotes

1. Meta-experiment or meta-test is the activity aiming to test a function while providing no data to test it.

   See below for more information. ↩

## References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