



Management Science

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Don't Build a Better Fax Machine: A Commentary on "Fighting Fire with Fire: Infusing AI into Peer Review to Sustain Quality Scholarship"

Christian Terwiesch

To cite this article:

Christian Terwiesch (2026) Don't Build a Better Fax Machine: A Commentary on "Fighting Fire with Fire: Infusing AI into Peer Review to Sustain Quality Scholarship". Management Science

Published online in Articles in Advance 07 Aug 2026

. <https://doi.org/10.1287/mnsc.2026.02443>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2026, INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

Don't Build a Better Fax Machine: A Commentary on “Fighting Fire with Fire: Infusing AI into Peer Review to Sustain Quality Scholarship”

Christian Terwiesch^{a,b}

^aOperations, Information and Decisions Department, The Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania 19104;

^bThe Mack Institute for Innovation Management, The Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania 19104

Contact: terwiesch@wharton.upenn.edu,  <https://orcid.org/0000-0002-4050-4348> (CT)

Received: June 12, 2026

Accepted: June 17, 2026

Published Online in Articles in Advance:
August 7, 2026

<https://doi.org/10.1287/mnsc.2026.02443>

Copyright: © 2026 INFORMS

Abstract. Artificial intelligence is increasingly being proposed as a tool to improve the efficiency of academic peer review. While such applications may alleviate reviewer shortages and enhance productivity, they largely preserve the existing architecture of scientific publishing. In this commentary I propose that AI also creates an opportunity to reimagine more fundamental aspects of how knowledge is evaluated and disseminated. Drawing on concepts from operations management and innovation, I propose disruptive alternatives that challenge the underlying design of the current process. Rather than simply helping referees review papers faster, AI may enable new models of scientific communication that are more open, timely, and adaptive to the needs of modern scholarship.

History: This commentary was accepted by Christoph Loch.

Keywords: [peer review](#) • [artificial intelligence](#) • [innovation](#)

In their article “Fighting Fire with Fire: Infusing AI into Peer Review to Sustain Quality Scholarship,” Bhargava and coauthors point to two very real pain points in the current peer review system: (1) congestion resulting from growing demand for scarce referee capacity, and (2) the ad hoc manner in which individual referees use AI (“shadow AI”) (Bhargava et al. 2026). In response, the authors recommend two workflow modifications: (1) using AI to improve referee productivity (“... to save time on mechanical checks ... and focus their intellectual energy on aspects of the review that require deeper human involvement ...”), and (2) establishing clear norms regarding AI use in the review process. As a long-time author, reviewer, and editor myself, I applaud these ideas and view them as part of the right bundle of AI applications to augment our current process of academic peer review and publication.

Nevertheless, I believe we should take this opportunity to ask a more fundamental question. It is the same question many organizations and societies have faced when confronted with new technologies: do we use the new technology to incrementally innovate by improving and sustaining our current processes and structures (the “dominant design”), or is it time to pursue innovations that disrupt and challenge the dominant design—and thereby our current paradigm?

I would like to propose three arguments in favor of a more disruptive approach to innovating the academic

publishing process. These points are intended not as a critique of our current and past practices, but rather, as an invitation to us to reimagine what new processes might look like.

First, we should acknowledge that the basic workflow (author submits, referees judge, editor decides, journal publishes) and the architecture of the publication system (a monthly publication of roughly a dozen articles, each approximately 32 pages long) remain fundamentally unchanged from more than 70 years ago, when this journal was founded. Put differently, our current workflow and the organizations that manage it still reflect the design constraints of the 1950s: limited bandwidth (pages), distribution by mail, and knowledge stored on paper, which is not only bulky but also difficult to search. Continuing to operate within these constraints puts us at risk for “building a better fax machine” and may stand in the way of more radical, architectural innovation.

Second, we teach our students about the power of just-in-time systems, yet, as authors, we batch our knowledge output into long papers, and as journals, we publish assortments of such papers once a month. As a result of this batch-flow operation and the lengthy review process, it is not uncommon to see publication lead times—from working paper to publication—stretch over multiple years. This is simply too long in a field where technology changes rapidly. In response to this slow pace, much of the scientific debate has

migrated to platforms such as SSRN, Substack, and X. The poor content quality associated with social media is well documented, but it is largely a consequence of the anonymity these platforms permit. In our scientific community, the personal reputations we have as scholars and the brands of the institutions that employ us may be sufficient to avoid the trap that has turned many social media sites into intellectual sewage systems. Moreover, an AI prescreening mechanism similar to the one proposed by Bhargava and coauthors could serve as an automated content moderator if needed.

Third, I propose that there are viable alternatives to relying on anonymous (and typically uncompensated) referees as quality inspectors. In a world without page limits, might it make sense to publish every submitted paper—including supplementary materials such as data, analyses, and computer code—and allow the scientific community to engage in quality control *after* the virtual ink has dried? True, the universe of published papers

would expand substantially, and publication counts would no longer serve as a strong signal of scholarly quality. But AI agents could help curate the set of papers we might find worthwhile to read. And if we disagree with the validity of an argument we encounter, we could comment directly to the author and, when sufficiently important, engage in a public debate. Fame and recognition would then accrue to those who succeed in such public debates, rather than to those who managed, behind closed doors, to convince an editor and three referees to accept their paper. Academic publishing could thereby fulfill the promise social media once held—but failed to deliver on becoming a true marketplace for ideas, free speech, and intellectual progress.

Reference

- Bhargava HK, Bana S, Zhang Z, Brandimarte L, Choudary V, Li F, Loupos P, Zantedeschi D (2026) Fighting fire with fire: Infusing AI into peer review to sustain quality scholarship. *Management Sci.* Forthcoming.