The Secret To Recruiting Reliable Reviewers
Peer review is at the heart of scholarly communication. It’s the gold standard in maintaining the quality and integrity of published research—but it’s not perfect, nor is it safe from fraud. Instead, peer review is an old system that’s long-overdue a technological overhaul in today’s highly-competitive academic environment.

The rapid growth in manuscript submissions over recent years means more researchers are bearing the brunt of multiple review requests. Few have the capacity to take on this additional work and the review invitation acceptance rate for certain journals has dropped dramatically in recent years. Editors now face weeks of work to find two or more reviewers, and the resulting backlog of breakthrough research is at odds with today’s publish or perish environment. To compensate, numerous researchers have looked to unscrupulous practices to achieve faster results: more than 500 cases of peer review fraud have been found to date.

Peer review today remains, as Henry Rzepa, chemist and Emeritus Professor at Imperial College London put it, “the single most important activity a publisher can undertake on behalf of the scientific community.” At the same time, it’s manifested into an editorial nightmare for publishers worldwide.

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Henry Rzepa
Chemist and Emeritus Professor at Imperial College London
A fraying relationship

Peer review is the main method of quality control employed by journals, but it hasn’t scaled with time and this is fraying publishers’ relationships with reviewers and authors.

The practice involves editors offering drafts of a paper to (often anonymous) experts to improve the research or weed out illegitimate findings before publication. Peer review has more or less functioned in this way since it began in the 18th century, but a lack of recognition, transparency, and modern tools has made it an unsustainable and inefficient approach today.

Editors have limited insight into reviewer workloads and can unwittingly overload reviewers with multiple review requests, many often outside the reviewer’s area of expertise. It results in the need to send multiple invitations for any positive response - and these often come from time-pressured reviewers who are either shouldering the workload and/or already overburdened with their teaching, mentoring, and research efforts.

What’s the most common reason you decline an invitation to review?

70%
“Article was outside my area of expertise

— Publons 2018 Peer Review Survey of 11,800+ reviewers
“We have had some manuscripts that have had as many as 15 reviewer invitations turned down, and I know of other journals with even more extreme examples of declining reviewer willingness to review,” says Raphael Didham, editor of Insect Conservation and Diversity (ICD), in an interview with Retraction Watch. Didham found the median frequency of reviewers accepting the review invitations at ICD dropped noticeably from ~70% in 2008-2013 to ~50% in 2014-2016.

It’s no wonder that in Publons' 2016 Editor Survey, 75% of academic editors said that finding reviewers and getting them to accept review invitations is the hardest part of their job. They face a daunting task. On the one side they’re trying to cope with today’s deluge of manuscripts, and on the other they’re struggling to find expert reviewers who have the time, expertise, and an easily searchable and reliable contact address. That is, of course, if the editor has enough knowledge about the potentially niche subject area to know who to ask in the first place.

The result of this is like a candle burning at both ends. Reviewers and editors are growing each other’s workload and both are feeling the heat from impending deadlines.

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The growth of reviewer fraud

As it stands, peer review is making for an unsatisfying reviewer experience that compounds the editorial problem of getting review done. More importantly, however, it’s putting the quality of review at risk and fracturing the public’s trust in published research.

The growth of reviewer fraud is well known. Nearly every month new cases of “peer-review manipulation” and “unexplained authorship irregularities” arise. Some authors have become so desperate to publish they’re preying on overburdened editors to bypass the peer review process by impersonating or paying reviewers for favorable feedback.
“When [editors] see eminent reviewers being suggested by fairly inexperienced researchers it is not unreasonable to invite them,” says Adam Cohen in an editorial for Wiley’s British Journal of Clinical Pharmacology. Cohen describes how he and his editorial team were victims of a peer review ring: the authors or the company they paid for put forward seemingly-reliable names and bogus email addresses, and then approved the paper with little or no changes.

Peer review fraud is a very real reputational risk for publishers and editors treat them with caution for this reason. But the opportunity for reviewer fraud remains. The ongoing struggle to find reviewers mean some time-pressured editors — especially those less experienced or working outside of their comfort zone — are forced to invite reviewers they know little about or may not be fit-for-purpose. Editors lack the time and tools they need to make safe and reliable choices.

This needs to change.
Tackling the problem

A few options exist for publishers to tackle the problem of reviewer fraud. These include:

**RECOGNIZING REVIEWERS FOR THEIR EFFORTS**

Our recent case study with The American Society for Microbiology found that researchers are more willing to review and provide useful, constructive feedback if they know their contributions will be formally recognised. ⁹

**A HIGHER LEVEL OF VETTING**

Not accepting author-suggested reviewers, and discouraging reviewers from using non-institutional email addresses could help to recruit unbiased, motivated reviewers. However, the reality of this additional background checking is that it makes peer review slower and costs more for each article submitted.

**PEER REVIEW TRAINING**

This is a long-term approach but effective in helping advance researchers skills in review, and boosting the number of motivated, qualified researchers ready and willing to review. There are a number of courses to help train early career researchers, including our own Publons Academy. ¹⁰

**FRAUD DETECTION TOOLS**

Publishers could adopt one of the new fraud detection tools ¹¹ on the market, employ their own data integrity detectives, or hire outside professional services. The idea of each approach is to spot an unusual peer review submission or activity warranting further investigation.

Each of these steps will go a long way to tackling peer review fraud and enhancing the review process for researchers and authors. They will not, however, stop peer review fraud entirely. The only way to do that is to eliminate the opportunity arising, and that involves scaling the systems used at the beginning of the peer review process.
An innovative solution

Editors need access to powerful and innovative recruitment tools that help them find and contact motivated, reliable, and capable peer reviewers, and avoid reputational risk for the publisher.

Publons Reviewer Connect does just that. Publishers subscribing to the service gain access to more than seven million expert researchers, which draws from a combination of Publons’ unique cross-publisher database of reviewers and the world’s premier article and citation index, Web of Science.

Publons Reviewer Connect provides a 360-degree view of researchers to offer editors the data they need to make more informed decisions about who they invite to review. Editors can search and filter for reviewers using comprehensive search parameters including: article titles, full abstracts, journal name, co-authors, reviewers to exclude, and as the software develops, reviewer location. Publons Reviewer Connect returns a range of precise reviewer suggestions matching the search within seconds. Editors are then privy to a rich 360° profile from which they can screen review candidates against their publication history, institutional affiliations, editorial board memberships, verified email addresses, and potential conflicts of interest.
Editors using the tool will not only find fit-for-purpose reviewers, they can also reliably contact suggested reviewers to invite them to review. Publons Reviewer Connect provides a researcher’s latest contact email address from Web of Science, as well as one-click access to trusted sources where they can validate contact information, including institutional profiles and most recently published papers.

Publons Reviewer Connect can also provide editors with a view to whether a candidate is available to review via an exclusive “availability tool.” This feature allows reviewers with a Publons profile to indicate date ranges when they are unavailable to take on peer review assignments. This gives reviewers more control over when they receive peer review invitations and saves editors valuable time by ensuring they don’t send out fruitless invitations to busy or unresponsive candidates.

The unique combination of reliable contact information and indications of reviewer availability means editors can invite the right subject-matter experts to review with greater confidence and efficiency.
A new way forward

Peer review is an old system but it’s still the best process publishers have to maintain the quality and integrity of scholarly communication. It cannot last in its current form, however. The application of innovative technology is crucial to ensure a successful, fast, and trustworthy model. One that will not only free up editors’ time and reviewers’ inboxes, but be instrumental in minimizing the ever-present threat of peer review malpractice. While technology is key in improving the system, the secret to recruiting genuine, motivated reviewers also rests upon the human element.

It’s essential that publishers strive for a better reviewing experience and commit to stronger, ongoing relationships with the reviewing community. They are central to protecting the future of scholarly communication, and the quality of their work will suffer across the board if they are not offered better engagement and recognition for their service to research.
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