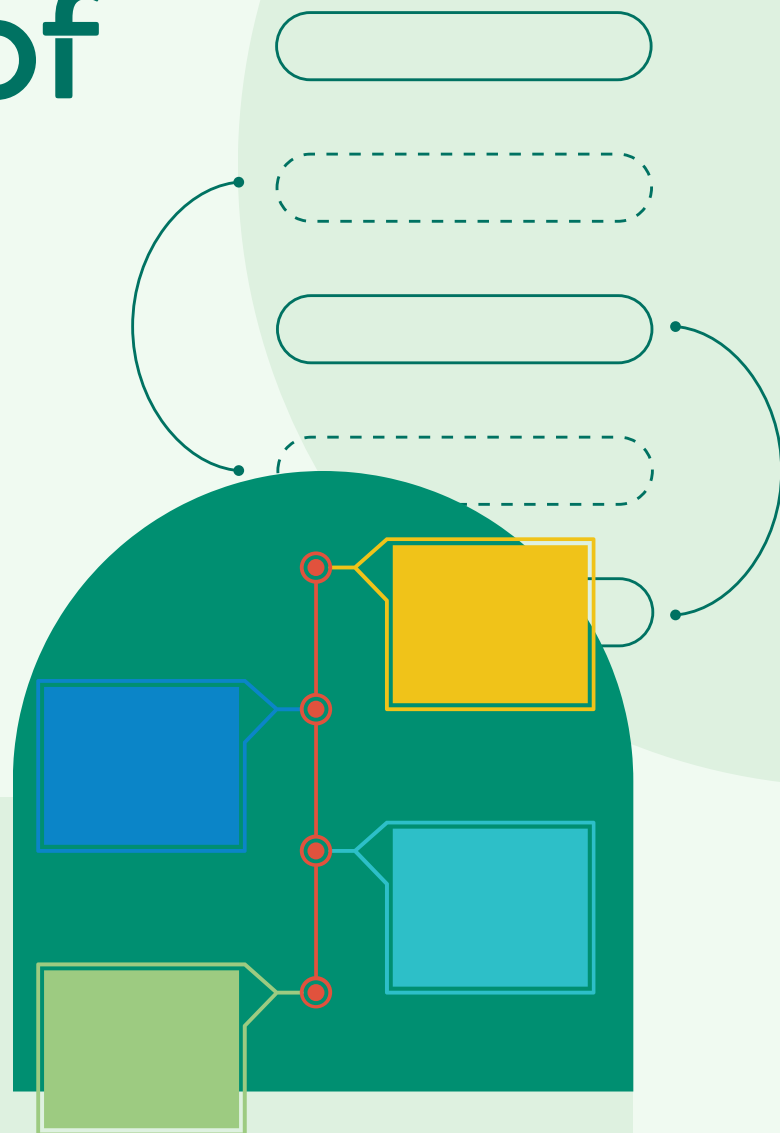


The Future of Peer Review Report

September 2025



A strong and sustainable peer review function is the foundation of scholarly publishing. This report explores what's working and what needs to change, so publishing continues to thrive.



SCHOLARONE

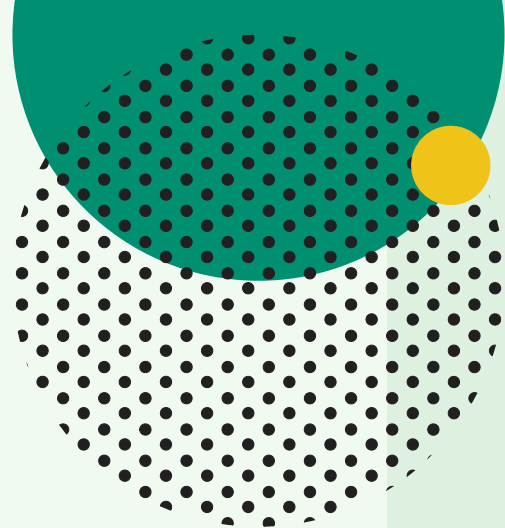
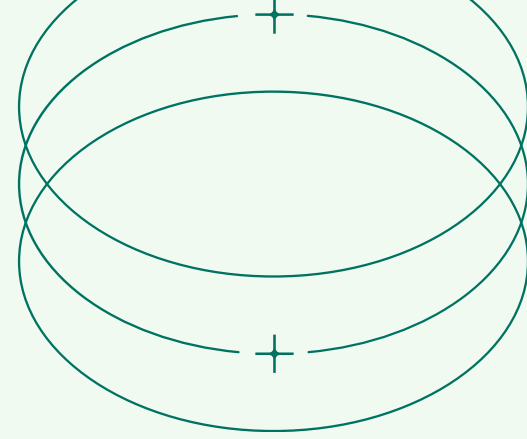


Table of Contents

3	<u>Introduction</u>
4	<u>A Quick Overview of Peer Review Trends</u>
11	<u>ScholarOne Users: Pain Points & Priorities</u>
15	<u>Spotlight: Research Integrity & Disinformation</u>
23	<u>Deep Dive into Peer Review Behavioral Trends</u>
34	<u>What's Next? Imagining the Future</u>
42	<u>Key Takeaways & Conclusions</u>

Introduction



Peer review is the cornerstone of scientific publishing, ensuring research quality and integrity. However, this foundational system faces increasing stresses from emerging technologies, evolving research practices, and growing concerns about research integrity.

Navigating these complex challenges requires understanding how behaviors and perspectives are shifting among all stakeholders—authors, reviewers, editors, and publishers.

This comprehensive report delivers critical insights into the current peer review landscape, synthesizing trending data, innovative initiatives, stakeholder insights, and futurist perspectives. With this report, we can better understand how peer review is adapting to meet tomorrow's scientific publishing demands and changing over time.

This flagship report will be reproduced annually, creating a powerful longitudinal dataset that will reveal evolving trends in peer review behavior, shifting perspectives, and technological advances across the research landscape.



A Quick

Overview of Peer Review Trends

The scholarly publishing landscape is undergoing profound transformation driven by technological innovation, evolving community expectations, and heightened concerns over research integrity. We have evaluated the landscape and distilled that broad range of innovation in peer review into the following trends.



AI Integration

Approximately **17% of research** was found to contain **some AI-generated text**. Today, large language models and machine-learning tools to perform initial manuscript assessments, such as plagiarism detection, statistical consistency checks, and formatting compliance, before human review begins with increasing frequency.

A Quick Overview of Peer Review Trends

AI Integration (cont.)

Major publishers now deploy AI-powered screening engines to flag potential ethical issues (e.g., image manipulation, text recycling) and to match submissions with suitable reviewers based on expertise profiles and publication history. Early studies reveal that AI-generated review summaries overlap with human reviewer comments by 30–40%, suggesting AI's capacity to improve efficiency without supplanting expert judgment. Given its broad publisher mandates, integration into editorial management systems, and measurable adoption by nearly one in five researchers, AI integration will continue to shape peer review.

Transparent Peer Review

Transparent peer review (TPR) models publish peer-review reports, editorial decision letters, and author rebuttals alongside final articles, often anonymizing reviewer identities unless reviewers opt in. TPR fosters accountability, offers educational insight for early-career scientists, and demystifies editorial decision-making processes.

A Quick Overview of Peer Review Trends

Research Integrity Checks

Proactive integrity checks—such as institutional attestations, mandatory plagiarism scans, image-forensic analyses, and author identity verification—have become standard pre-screening measures at leading journals. Some propose that institutions issue integrity certificates confirming raw-data validation and adherence to ethical guidelines, shifting the forensic burden away from journals and toward research bodies. This approach would ensure that manuscripts entering peer review have already passed rigorous institutional scrutiny, but adoption varies widely.

Preprint Integration

The expansion of preprint servers (e.g., bioRxiv, medRxiv) has accelerated manuscript dissemination and introduced innovative review workflows. Preprint review platforms such as [Review Commons](#) and Transparent Review in Preprints (TRiP) facilitate portable peer review across journals, enabling authors to reuse referee reports—thus reducing duplication of effort.

A Quick Overview of Peer Review Trends

Preprint Integration (cont.)

By 2020, preprints were on the rise during the COVID-19 pandemic, and reviews on preprints achieved a median turnaround of 46 days, compared to 163–199 days for traditional journal processes. This speed advantage encourages early career researchers to participate and allows editors to scout high-quality submissions before formal submission.

Reviewer Recognition Frameworks

Sustaining a robust reviewer pool relies on formal recognition of reviewer contributions. Services like [Publons](#) (now Clarivate's Web of Science Reviewer Recognition Service) allow reviewers to log verified reviews, showcase metrics on professional profiles, and earn digital badges. ORCID's peer review integration enables seamless association of review activities with persistent researcher identifiers, while many publishers issue certificates, CME credits, or fee waivers as incentives. Although precise adoption rates vary by discipline, thousands of reviewers globally use these platforms, and journals increasingly publish acknowledgments of reviewer contributions in article front matter.

A Quick Overview of Peer Review Trends

Post-Publication Peer Review

Post-publication peer review fosters continued scholarly dialogue after articles appear. Platforms such as [PubPeer](#) and [F1000Research](#), alongside journal comment sections, enable community feedback to identify errors, generate replicability discussions, and propose corrections. Approximately 63% of high-impact journals now explicitly invite post-publication commentary, reflecting a shift toward ongoing quality assurance. While PPPR accelerates error detection and democratizes critique, challenges include managing trolling behavior, ensuring comment quality, and aligning incentives for contributors.

Cascade Peer Review Models

Cascade models transfer manuscripts and existing reviewer reports between affiliated journals within a publisher portfolio. Early experiments (e.g., [Rubriq](#), [Peerage of Science](#)) revealed cost barriers and equity concerns, but contemporary implementations in Cell Press and Elsevier portfolios emphasize transparent labeling of cascaded reports, preserving authors' choice and reviewers' consent. Although cascading reduces duplicated review effort, uptake remains limited to publishers offering broad journal families.

A Quick Overview of Peer Review Trends

Addressing Reviewer Fatigue

Reviewer fatigue threatens the sustainability of peer review. Publishers and editorial boards are expanding reviewer pools to include early-career and international scholars, offering flexible deadlines and simplified review guidelines to reduce workload. AI assistance for routine checks (e.g., reference formatting, statistical flagging) further lightens reviewer tasks. While formal metrics on fatigue reduction are nascent, anecdotal data indicates that reviewers favor AI tools to streamline routine aspects of reviews.

Collaborative Peer Review

Collaborative models convene multiple reviewers to produce unified reports through real-time discussion platforms (e.g., [PreReview](#), [Peer Community In](#)). These pilots demonstrate enhanced report depth and reduced individual bias, but face coordination complexity and risk of groupthink. Adoption remains confined to small pilot programs and modular workshop settings rather than journal-wide systems.

A Quick Overview of Peer Review Trends

“Soundness” Review Models

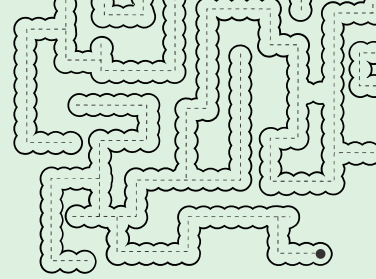
Soundness-focused review models—championed by megajournals like PLOS ONE—evaluate methodological rigor without judging perceived impact or novelty. This approach maintains high-throughput publication capacity and reduces editorial bias, though some researchers express concern over diminished signaling of groundbreaking work.

Blockchain-Based Review

Blockchain applications aim to secure immutable, transparent records of peer review transactions and to implement token-based incentives for reviewers. Platforms such as [Orvium](#) and [Pluto](#) prototype decentralized review networks, but these remain confined to small-scale trials with minimal publisher endorsement.

Interactive/Real-Time Review

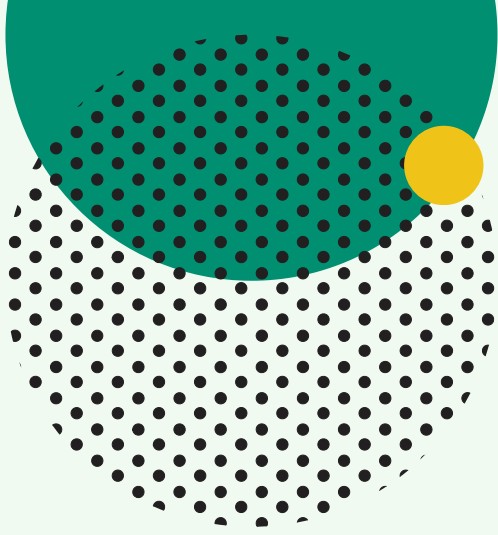
Interactive review models feature live author-reviewer dialogues, community-wide comment drives, or workshop-style review sessions for iterative manuscript improvement. While they enhance collaborative problem solving and training, they require significant coordination and thus are not yet integrated into standard journal workflows.



ScholarOne Users: Pain Points & Priorities

Publishers are racing to reinvent peer review through countless experiments and initiatives—a clear signal that this infrastructure sits at the heart of scholarly communication and is in need of change.

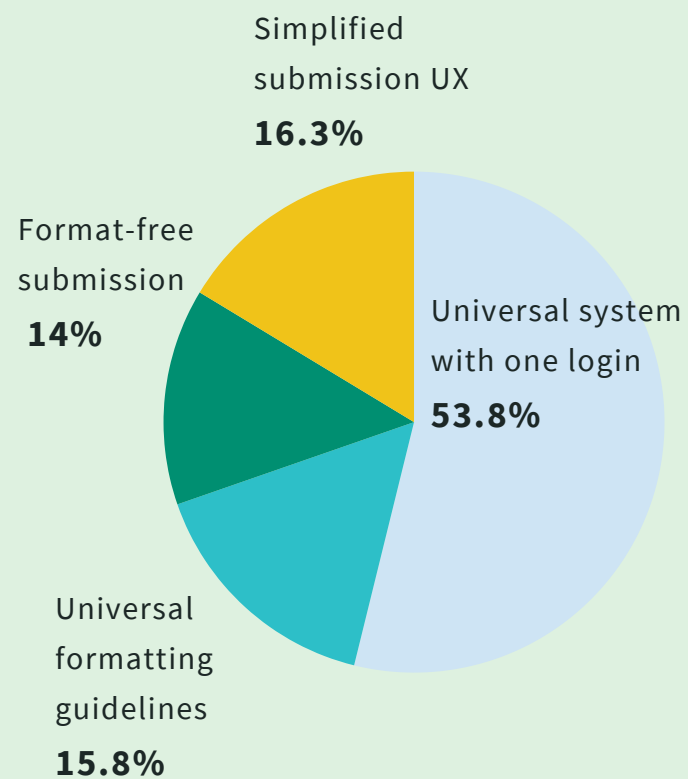
Every day, millions of researchers rely on ScholarOne Manuscripts to submit papers, conduct reviews, and build their careers. By deeply understanding how they navigate our workflows—and their appetite for innovation—we can shape smarter product decisions and give our publishing partners the insights they need to meet genuine user demand.



ScholarOne Users: Pain Points & Priorities

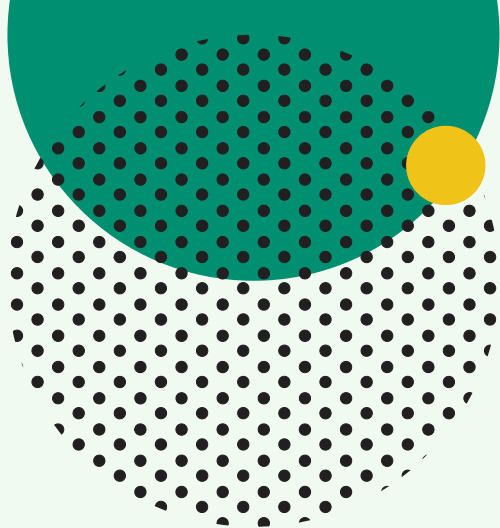
Multiple Submission Systems

Users polled in ScholarOne expressed a fragmented experience: fewer than $\frac{1}{3}$ of authors relies on a single submission system. This carries real consequences—nearly half of surveyed authors (48.7%) believe juggling multiple systems significantly impacts their publication success. However, 38.2% remain neutral on the issue, suggesting authors have adapted. They've learned to navigate submission, but that doesn't mean they like it. The authors' true feelings emerged when we asked what single change would most improve their submission experience.



The call for a universal system with one login may be evidence that beneath author adaptation lies frustration with needless complexity.





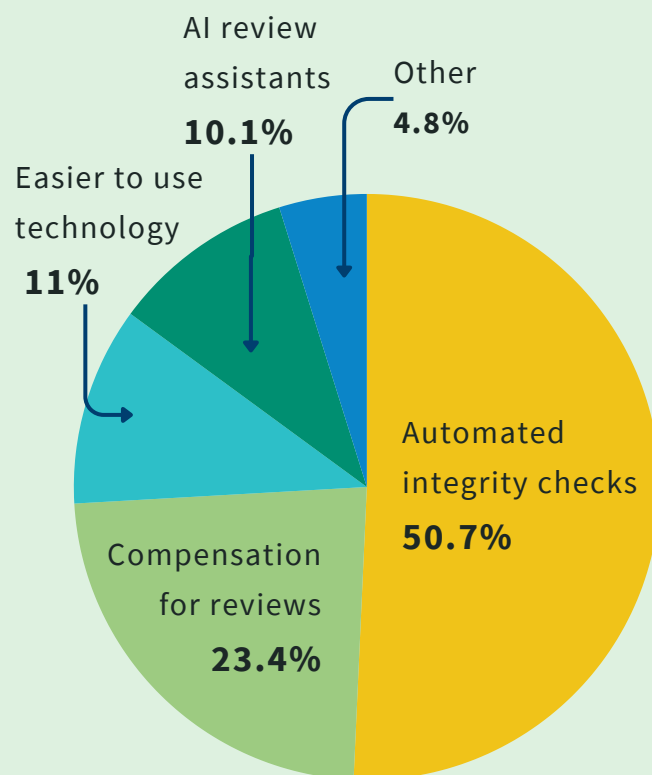
ScholarOne Users: Pain Points & Priorities

Reviewer Challenges

We understand the burden many peer reviewers face as they juggle multiple roles and priorities. Overwhelmingly, reviewers polled in ScholarOne cited navigating the technology as the biggest challenge (59%), followed by finding the time (21%).

Interestingly, while only 3% found it challenging to check for integrity or ethical issues, 51% cited automated integrity checks as the change that would have the biggest impact. This disconnect could reflect the belief that integrity checks are the responsibility of editorial teams rather than reviewers.

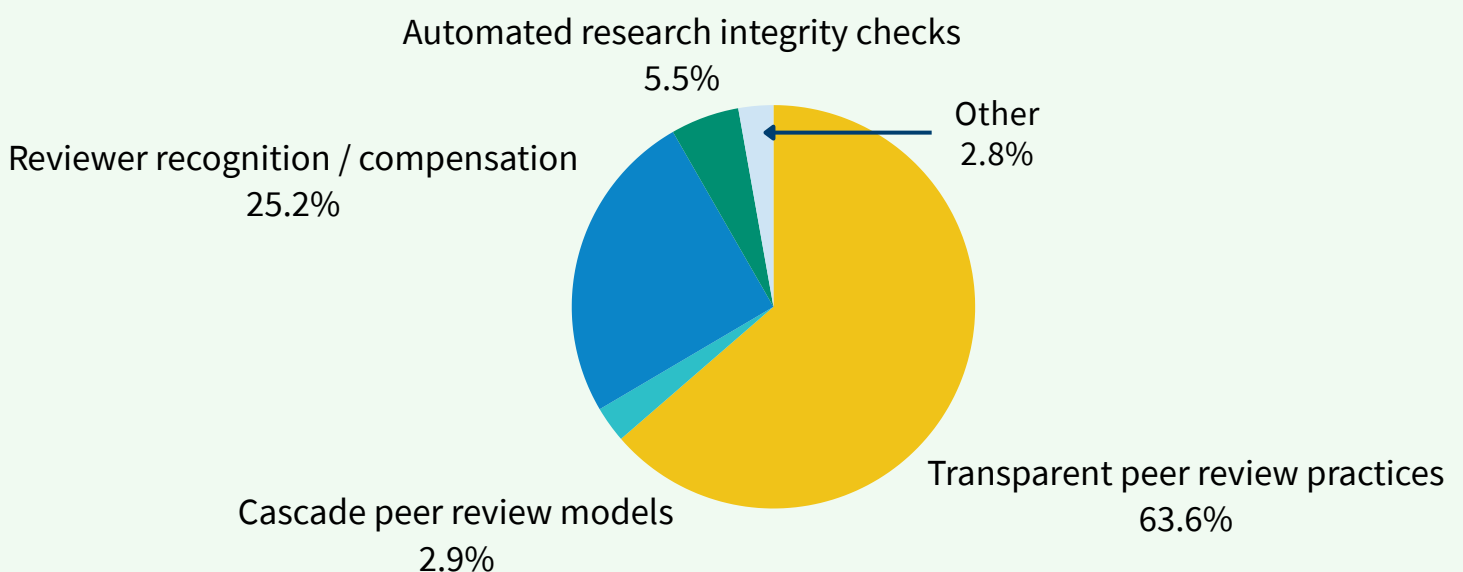
Which of the following changes would have the biggest impact on your work as a peer reviewer?



ScholarOne Users: Pain Points & Priorities

Change Readiness

Polling ScholarOne users about their interest and comfort with various peer review trends reflected several interesting data points. Users are overwhelmingly ready for transparency, with **64%** identifying it as having the biggest positive impact. Next ranked was reviewer recognition and compensation, with **¼ of respondents** wanting change in that region.





SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation

When it comes to research integrity interventions in peer review and editorial workflows, ScholarOne users were decidedly split. Yet one theme emerged crystal clear from our polling: the demand for transparency. This finding takes on deeper significance when you consider how transparency serves as the backbone of trust in scholarly publishing—a relationship we examine in detail in our piece on peer review as a defense against research misconduct.



Josh Dahl

SVP, Product &
General Manager,
ScholarOne

Originally published on the Silverchair blog ([here](#)), we share here to offer context and a call to action for publishers today.



SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation

Does anyone else feel like it becomes harder and harder to trust the information we consume every day? From algorithm-driven news cycles to the blazing speed at which information (regardless of its accuracy) travels, the drive toward research integrity to restore trust in science can seem steeper and steeper.

As the public conversation around research becomes more incendiary, exaggerated, and skeptical, the integrity of the scholarly record has never been more critical. Scholarly publishing today has to not only ensure accurate, valid, and impactful science is shared, but also uphold public trust in how that record is created.

This dual mission becomes challenging when the systems upholding scientific credibility remain invisible or misunderstood. The solution lies in the evolution of one of our most foundational systems: **peer review.**

Peer review today is not what it was even five years ago. I argue that we need to recognize that peer review is not just a publishing workflow, it's a critical piece of public infrastructure in the defense of research.





SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

From Process to Infrastructure

While peer review has always been a vital part of publishing, its function in the broader knowledge ecosystem is changing.

Peer review is a signal of rigor, responsibility, and transparency.

Beyond determining what gets published, peer review reflects how scientific communities govern themselves, how credibility is earned, and how evidence is evaluated.

The weight of this process means that peer review is more than a workflow, it is the infrastructure that underwrites trust both within the academic community and beyond. That is, if it is well-designed, properly supported, and effectively executed.

Given this shift, we can't treat peer review as static or operational. Peer review needs to adapt in structure and technology, as research integrity threats gain momentum and as the public knowledge ecosystem becomes more fraught.

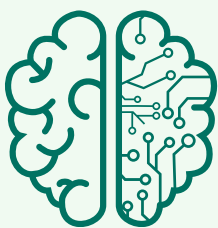


SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

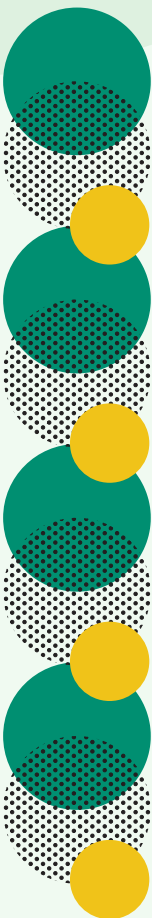
The Rising Complexity of Editorial Responsibility

To be an editor in today's scholarly publishing world, you have to be a juggler, easily able to navigate:



- The ethical use of generative AI in submissions
- Increasingly sophisticated fraud and peer review manipulation
- A growing demand for transparency from funders, institutions, and readers
- The tension between rapid dissemination and rigorous verification
- New technologies, which sometimes bring new complexities

These pressures are not temporary. They reflect a structural shift in how science is communicated—and who's paying attention.





SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

The editorial role is, in effect, an act of stewardship. And that means thinking beyond individual articles to ask bigger questions: What does trust in our journal look like? What does it rest on? What tools, policies, and partnerships do we need to sustain it? How big of a threat is research integrity, and how do I manage that burden on my peer reviewers? How do we approach contextualizing retractions to preserve the scholarly record? How do we communicate that retractions are in fact a trust signal?

AI-Assisted Peer Review: Scale, Efficiency, but Human

We can't talk about the changes to peer review without talking about emerging technologies and the AI explosion. AI can be a critical tool to support editorial workflows, and it can be especially critical in the context of research integrity. But adoption must be thoughtful, strategic, and even cautious.

- Triaging submissions based on scope and technical quality
- Flagging statistical or methodological inconsistencies
- Detecting duplication, image manipulation, or undisclosed AI use
- Identifying links to retracted literature or prior misconduct



SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

These tools are not a replacement for human judgment.

But they can enhance our ability to scale. Editors armed with AI tools can be efficient, and potentially catch issues earlier, before publication, before citation, before sharing.

In this context, early intervention is about more than operational quality, and more than saving the time and resources of your peer reviewers. AI-assisted peer review can be about preventing the erosion of trust downstream, where flawed papers can be amplified, misunderstood, and can even go viral in today's public discourse.

Embedding Trust Architecture Throughout the Peer Review Process

We can counteract many of the research integrity challenges publishers face by combining the efficiencies afforded by technology, with the rigor and experience of reviewers and editors. Research integrity checks, embedded directly into peer review software to avoid adding the complexity of new applications, are getting better every day to screen for plagiarism, image manipulation, ethical compliance, data availability, and authorship conflicts.



SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

These tools can do more than catch problems early, they also streamline editorial decision-making and reduce the burden on human reviewers.

By surfacing key issues before peer review even begins, these checks allow reviewers to focus on scientific merit rather than policing standards. The result is a faster process that produces higher-quality, more reliable publications.

I think it is unlikely that these types of checks will ever replace peer review. There is too much room for nuance, and ceding control over peer review to these technologies risks undermining trust even further if they are found to be ineffective. Think of them as tools to help you meet the profound responsibility of being a steward of the scholarly record.

Research integrity today might be just as much about the quality of research as its perceived legitimacy. By collaborating to co-create ecosystems that are efficient, ethical, and transparent, we can create the environment needed to reinforce the foundation of trust in science.




SPOTLIGHT

Peer Review and Research Integrity as Defense Against Disinformation (cont.)

Science Doesn't Ask for Blind Faith – It Earns Belief Through Process

We may have moved beyond the information or knowledge economy to the attention economy. The best response to a system that thrives on noise is to show the systems that keep science ethical.

Peer review is one of those systems.



When peer review works well, with transparency, flexibility, and bolstered by automated integrity checks and AI assistants, it is more than a publishing workflow. It is a promise.

A promise that scholarship, even when imperfect, is accountable. A promise that complex truths are worth defending and that trust can be rebuilt one review at a time.

DEEP DIVE INTO

Peer Review Behavioral Trends

As ScholarOne nears the end of its 25th year, we set a goal to provide broad, longitudinal data on author and reviewer demographics. We also sought to answer some key questions often asked by publishers today:



Is it getting harder to find reviewers?



Are peer review and editorial management workflows becoming more efficient?



Where are reviewers coming from? Where should I invest to find new pools of reviewers?



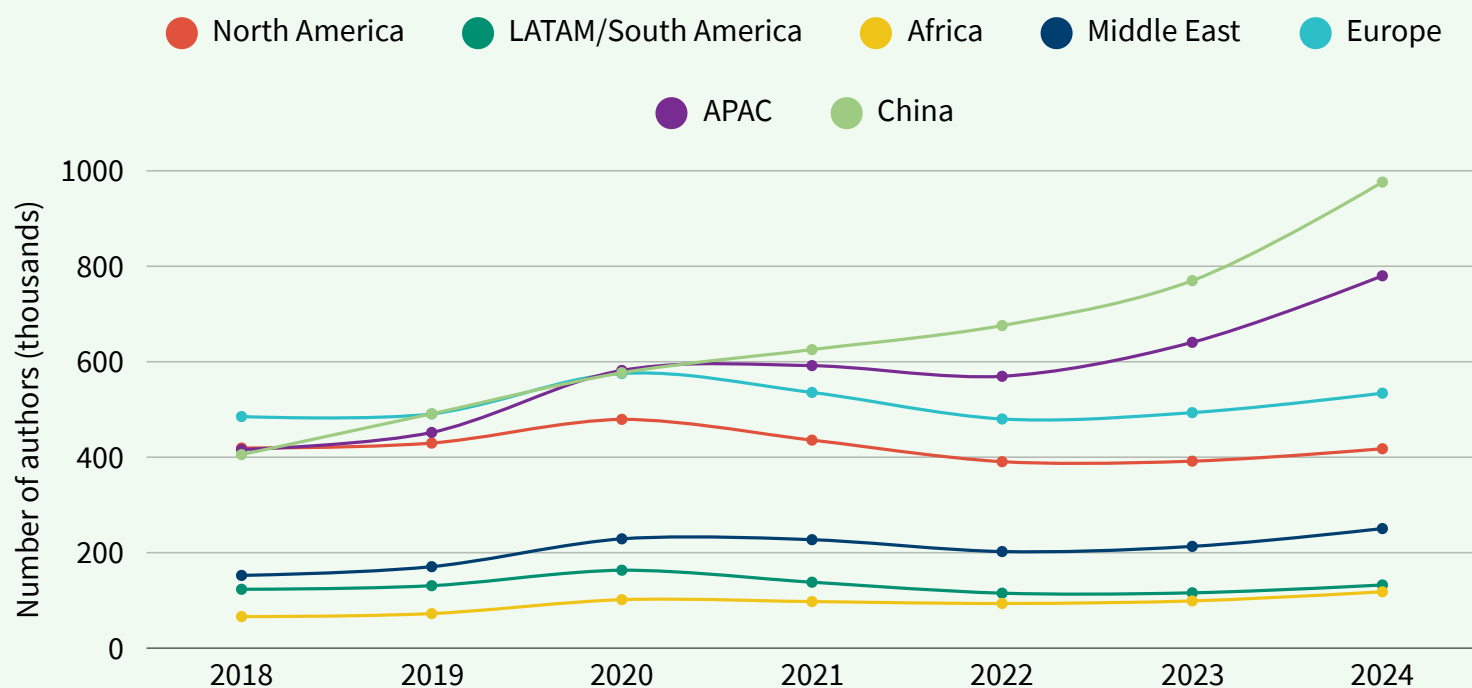
Is my discipline performing similarly to others, or is the future of my organization at risk?

Answers to these questions are nuanced and complex. We've compiled a review of user demographic and behavioral data to help inform your ongoing publication strategies and decisions.

DEEP DIVE INTO Peer Review Behavioral Trends

Author Demographics

The geographic breakdown of authors on ScholarOne will not be revelatory to many of us: China continues to grow article share, building on a trajectory that began in 2021. **By 2024, authors from Chinese institutions published just over 30% of articles on ScholarOne.**



DEEP DIVE INTO Peer Review Behavioral Trends

Author Demographics (cont.)

Looking further into shifting author dynamics, we aggregated data into disciplinary categories. Looking longitudinally, there are predictable peaks around the intensity of COVID-19 research. Many fields showed increase in output during that period, and have sustained higher publishing levels since. Five years out, the data indicates that we may be seeing permanently elevated levels of research output.



Medical/Health Sciences

39% increase

from 2019-2024

In 2024, medical sciences finally surpassed COVID-19 article counts



Social Sciences

63% increase

from 2019-2024

2023 and 2024 suggest particularly strong increase in output



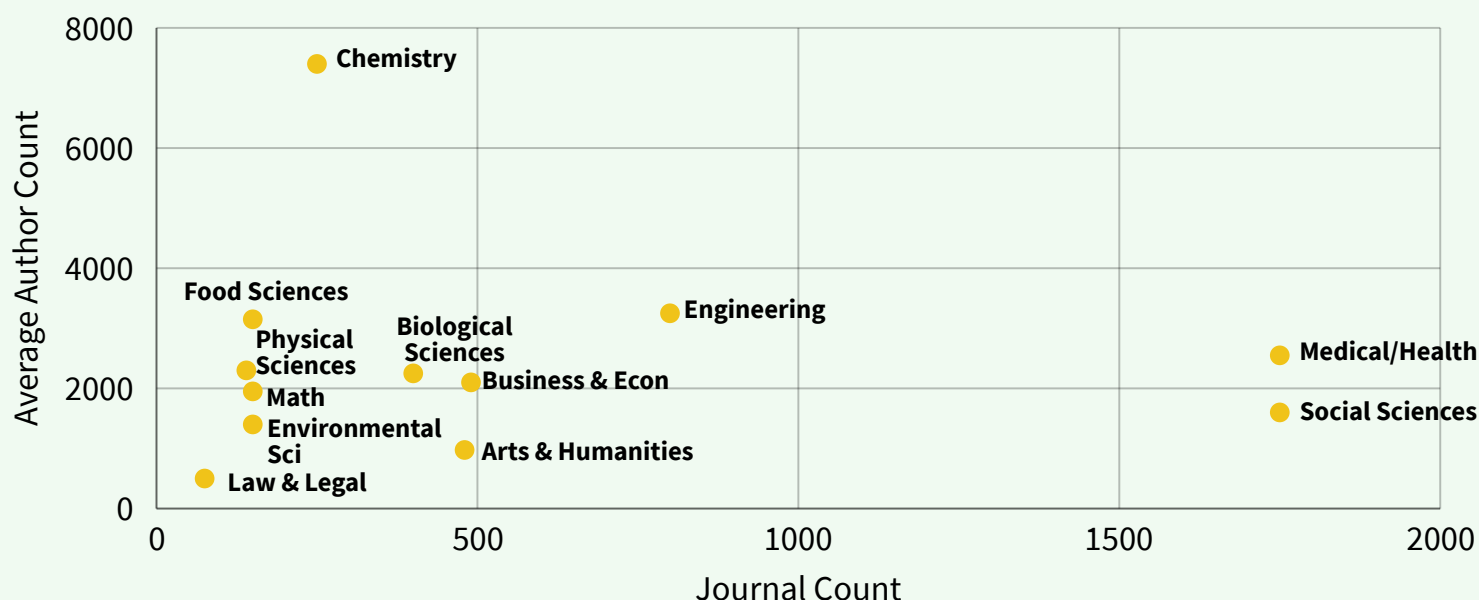
SCHOLARONE
FROM SILVERCHAIR



DEEP DIVE INTO Peer Review Behavioral Trends

Author Demographics (cont.)

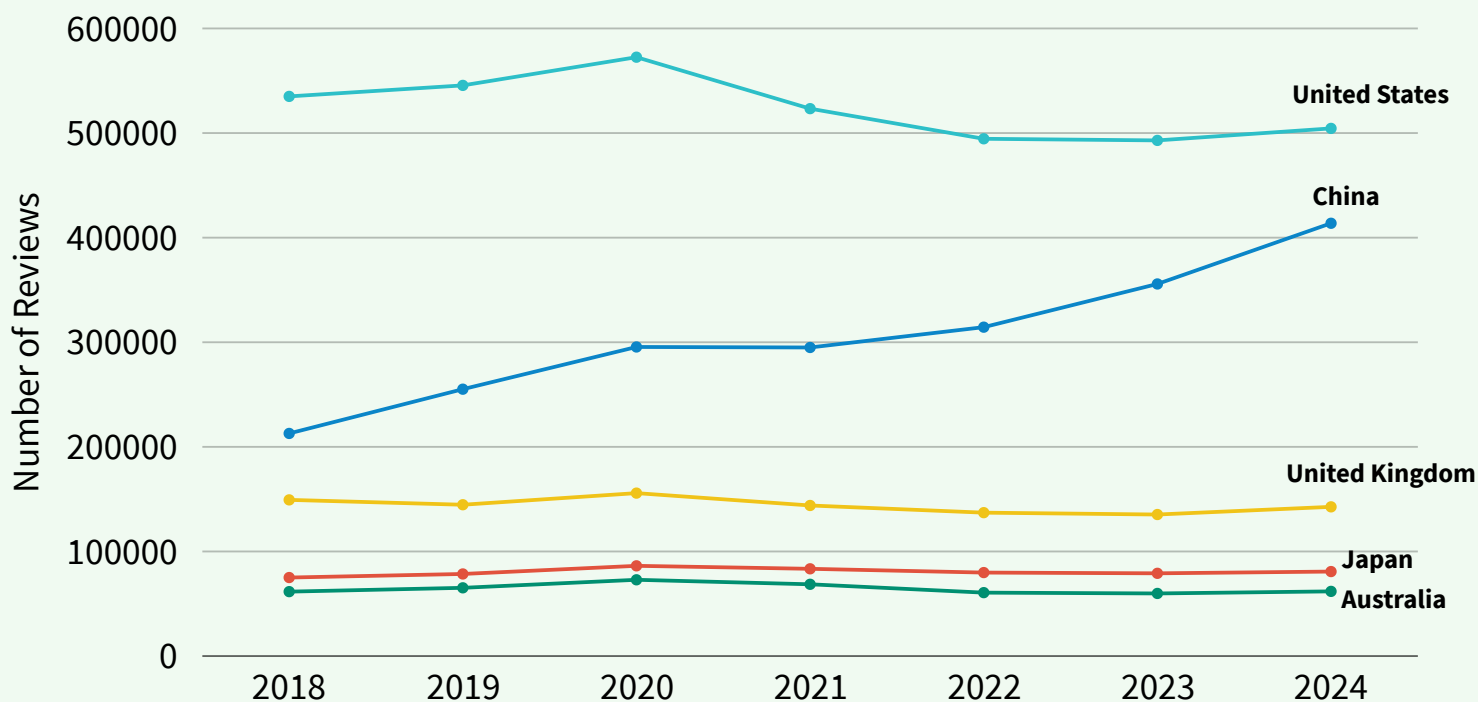
The **average number of authors per journal has increased from 304 in 2018 to 401 in 2024**, indicating a trend toward larger research teams and increased collaborative efforts in academic publishing. This growth pattern suggests several key developments in the research landscape: enhanced international collaboration, the rise of large-scale studies, and the increasing complexity of research requiring multidisciplinary expertise.



DEEP DIVE INTO Peer Review Behavioral Trends

Reviewer Demographics

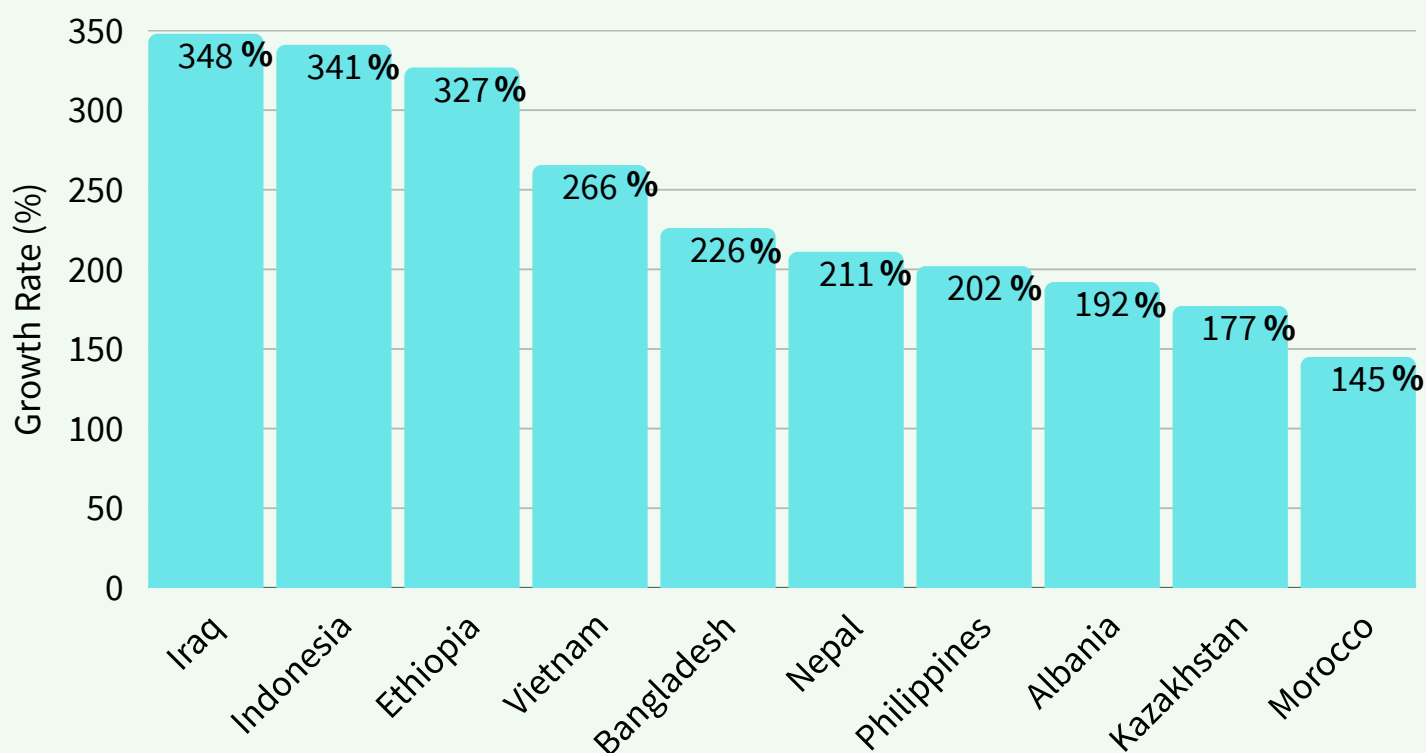
The data we see in ScholarOne mirrors the anecdotal feedback we hear from editors and administrators regularly: the geographic distribution of reviewers is changing. Below is the top five countries for reviewer output, from 2018 to 2024.



DEEP DIVE INTO Peer Review Behavioral Trends

Reviewer Demographics (cont.)

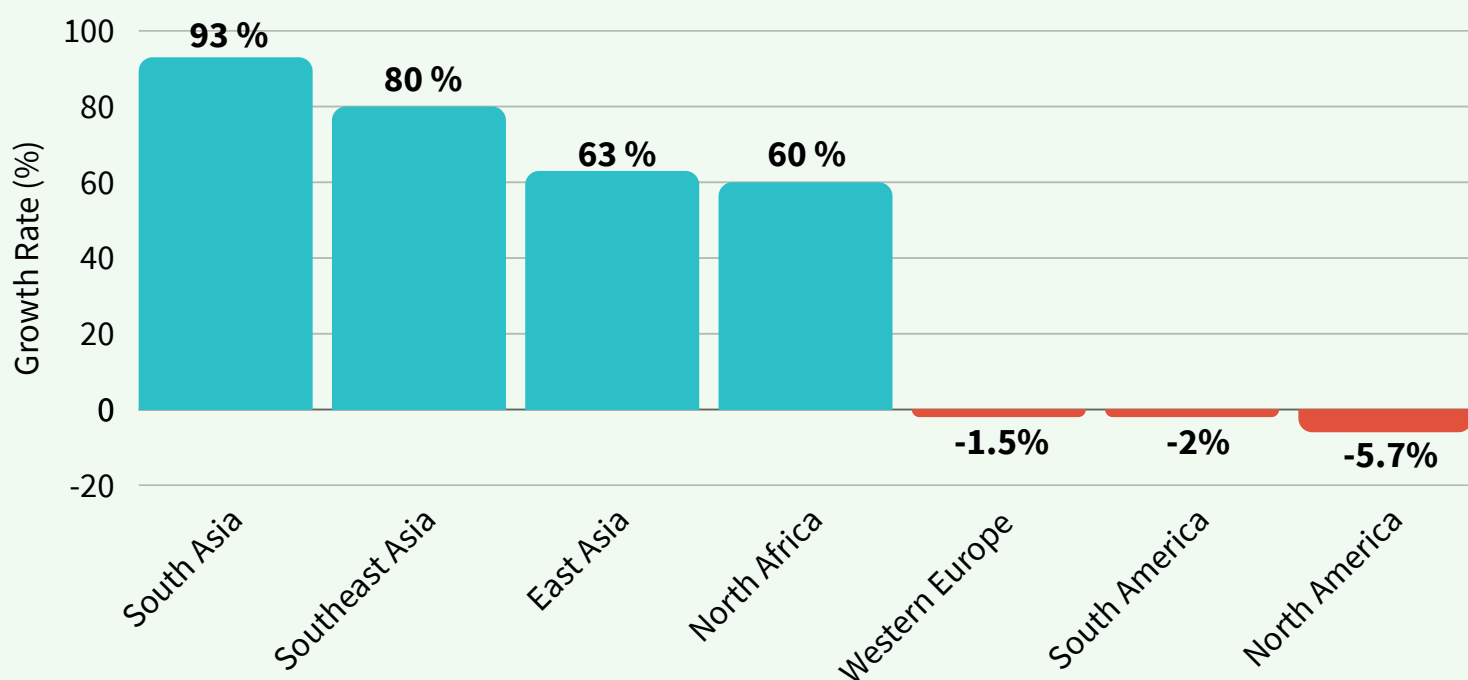
We also evaluated which countries have the fastest growing reviewer markets. These countries have seen more than 100% growth in reviewer counts over the last seven years, demonstrating increased globalization.



DEEP DIVE INTO Peer Review Behavioral Trends

Reviewer Demographics (cont.)

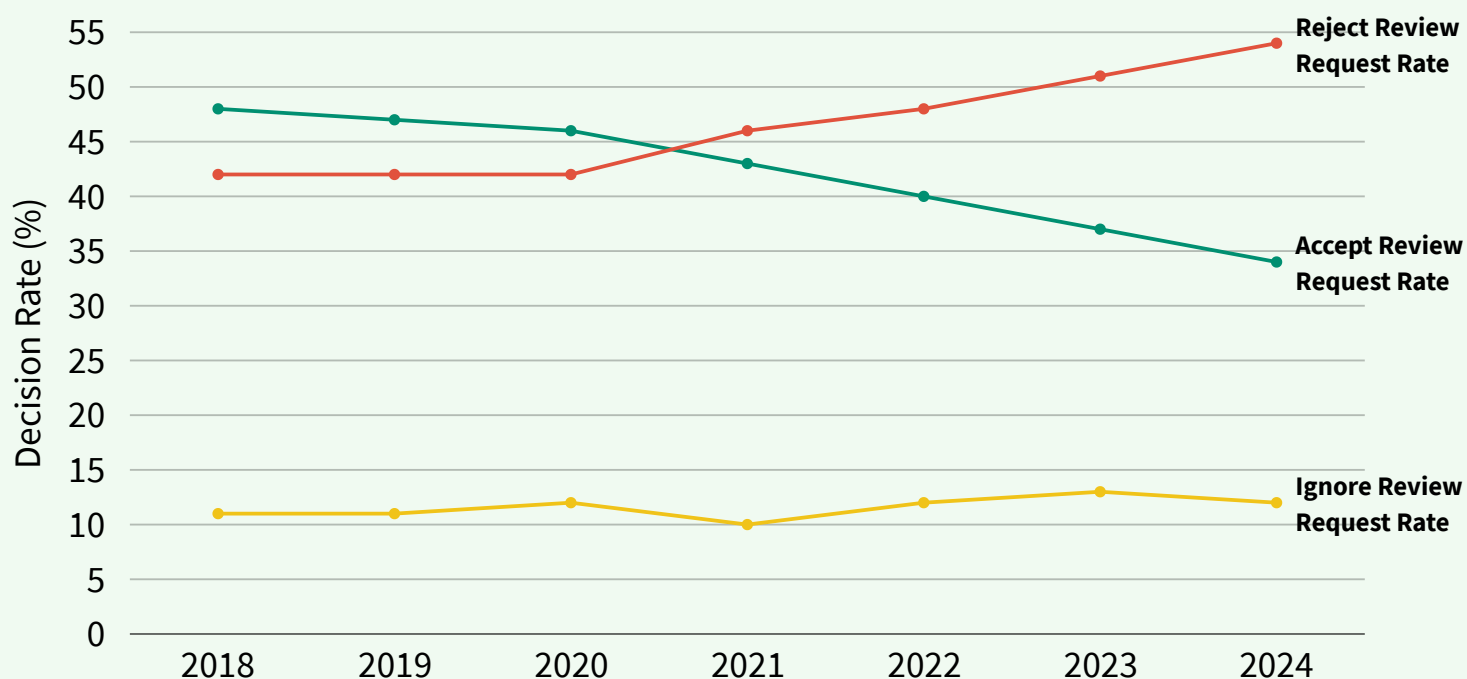
To look deeper at what regions are seeing growth in reviewer output, and which are seeing decreases, we isolated several key regions. This suggests that publisher strategies for finding new reviewer pools should explore new geographic regions to find candidates.



DEEP DIVE INTO Peer Review Behavioral Trends

Is it harder to find reviewers?

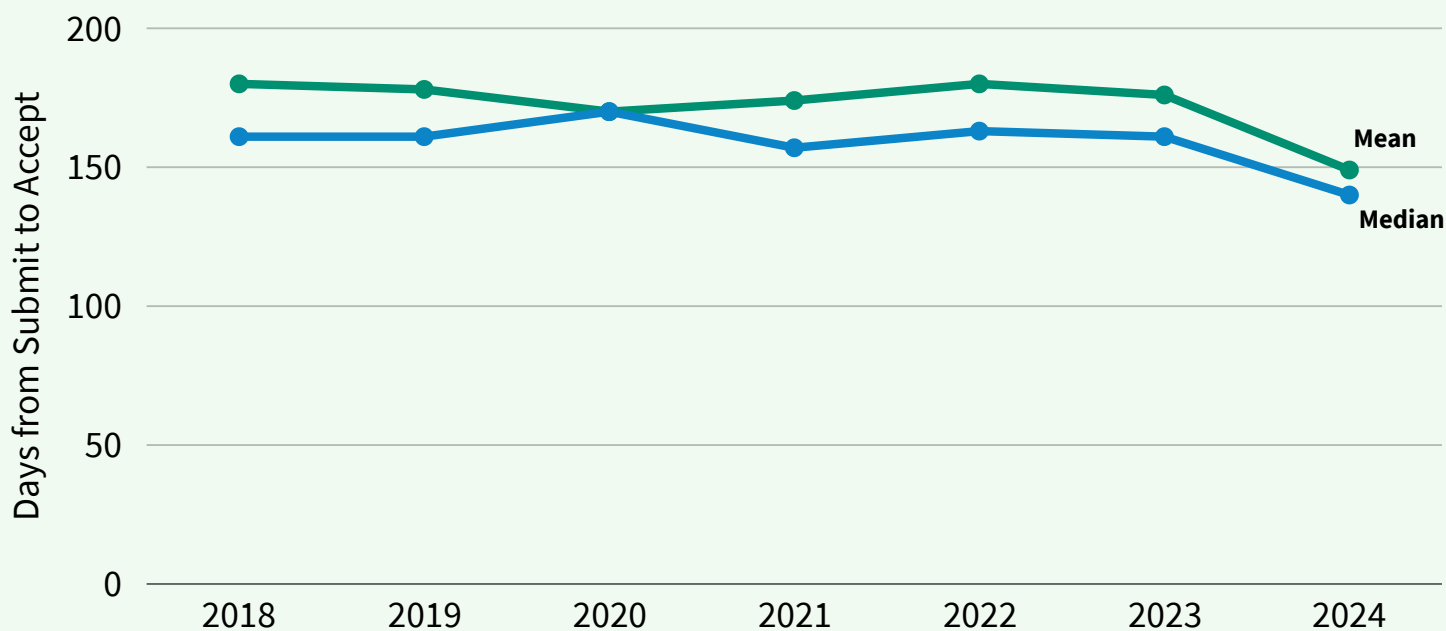
Finding reviewers, and getting them to agree to provide a review, is one of the most challenging aspects of the peer review workflow. We analyzed the frequency with which reviewers accepted, rejected, or ignored review invitations, tracking a shift in 2020 that has only deepened with each year.



DEEP DIVE INTO Peer Review Behavioral Trends

Is publishing speeding up?

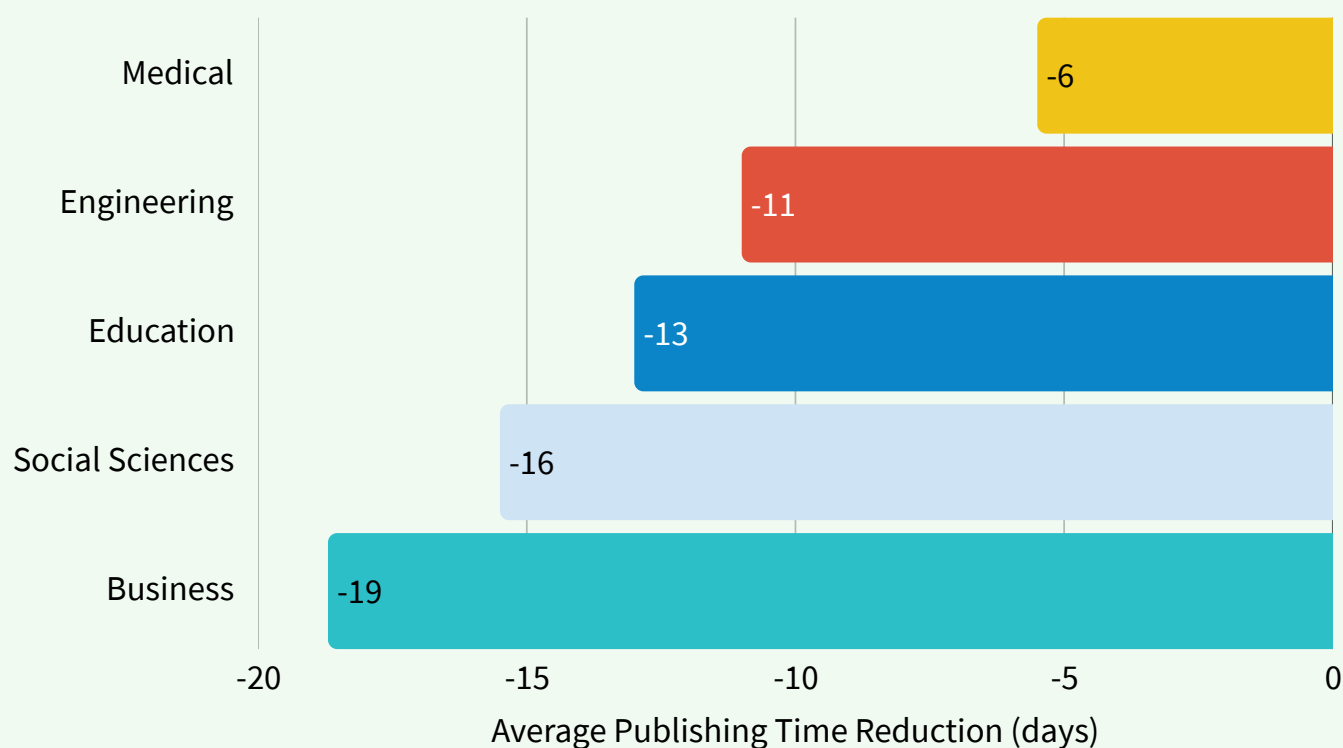
While there are arguments that support speeding up the publishing process to disseminate knowledge more quickly, and arguments against to ensure proper time to validate and improve upon published research, it remains a critical metric for many editorial teams. 2020 marked the first push to speed, understandable during the COVID-19 pandemic, and 2024 marked the biggest single year decrease in days between submission and acceptance.



DEEP DIVE INTO Peer Review Behavioral Trends

Is publishing speeding up? (cont.)

Naturally, the rate of publishing programs varies across different disciplines, driven by external mandates and pressures as well as internal changes in process. We evaluated which fields have seen the most change in publication time over the last seven years.



DEEP DIVE INTO Peer Review Behavioral Trends

Data trends summary

ScholarOne user data indicates a rapidly evolving scholarly publishing environment characterized by increasing internationalization, larger research teams, and shifting reviewer demographics. The sustained growth of article output—especially from China, which now accounts for over 30% of published articles—highlights persistent globalization across disciplines. Rising author counts and increased collaboration reflect the expansion and complexity of research projects, with average author numbers per journal growing significantly from 2018 to 2024.

Reviewer pools are also transforming, with new markets growing by more than 100%, suggesting opportunities for publishers to diversify review panels and address shortages in traditional regions. However, finding and retaining reviewers continues to be a notable challenge, as rates of review invitation rejection and ignored requests remain elevated since 2020.

These shifts underscore the need for publishers to adapt strategies for engaging authors and reviewers, investing in technology, and leveraging global networks. The future of peer review requires flexibility and innovation to sustain research quality, speed, and inclusivity.

WHAT'S NEXT?

Imagining the Future

In this section, we've imagined a variety of AI- or human-driven futures for peer review. We'll look back in future years to see what potential predictions came to pass.



Post-Publication Continuous Validation

Traditional pre-publication peer review is replaced by AI-powered validation systems that continuously assess research quality, replicability, and impact as new evidence emerges, creating living documents that evolve with each new discovery or breakthrough of understanding.



Human-Only Assessment Mandate

Journals and funding bodies institute policies requiring that all reviews and editorial decisions be conducted exclusively by human experts. Any submission that leverages AI is automatically flagged for additional human oversight or outright rejection, prioritizing human intuition, domain expertise, and reasoning.



WHAT'S NEXT?

Imagining the Future



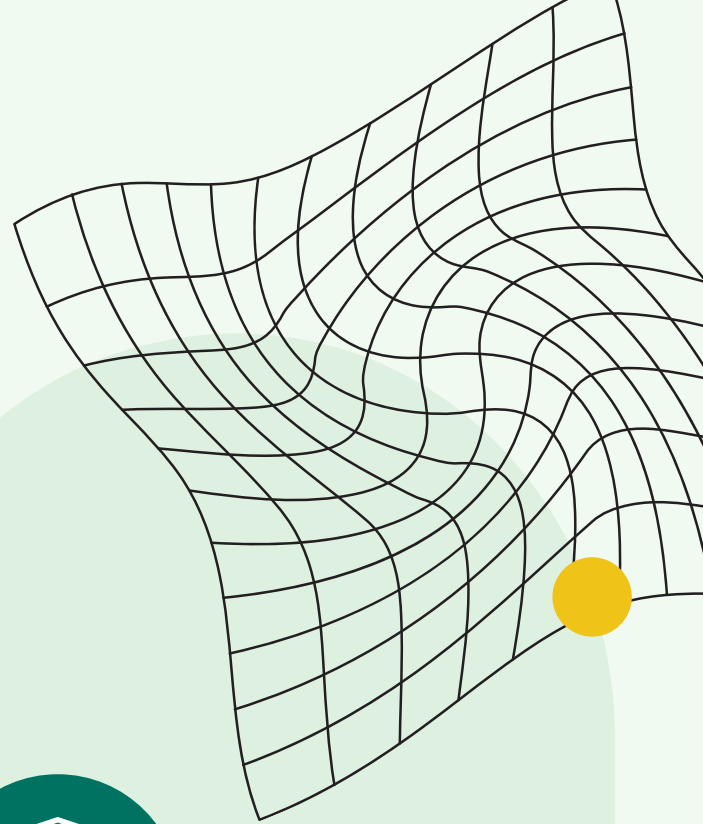
Real-Time Global Research Synthesis

AI continuously integrates new findings across all disciplines into a knowledge system, automatically identifying contradictions, gaps, and emerging patterns. Knowledge becomes self-organizing, instantly synthesizable, and easier to make strategic editorial decisions.



CAPTCHA-Style Validation for Authentic Scholarship

To ensure human intellectual contribution, submissions must pass a “scholarly CAPTCHA” that tests nuanced reasoning, historical context, and domain-specific judgment impossible for current AI. Manuscripts failing these validation quizzes are rejected, safeguarding against AI-driven “researched but unreasoned” work.



WHAT'S NEXT?

Imagining the Future



Predictive Research Validation

AI systems predict which research directions will prove fruitful or problematic before studies are conducted or funding has been received, dramatically reducing wasted resources on methodologically flawed or redundant research while identifying high-impact opportunities.



Peer Review Blocklist of AI-Generated Methods

A curated registry lists algorithmic workflows known to produce unreliable/opaque results. Reviewers reference this registry during evaluation, and any paper employing those AI methods is rejected or required to substitute with transparent, human-validated techniques, curbing the rise of black-box AI in critical analyses.

WHAT'S NEXT?

Imagining the Future



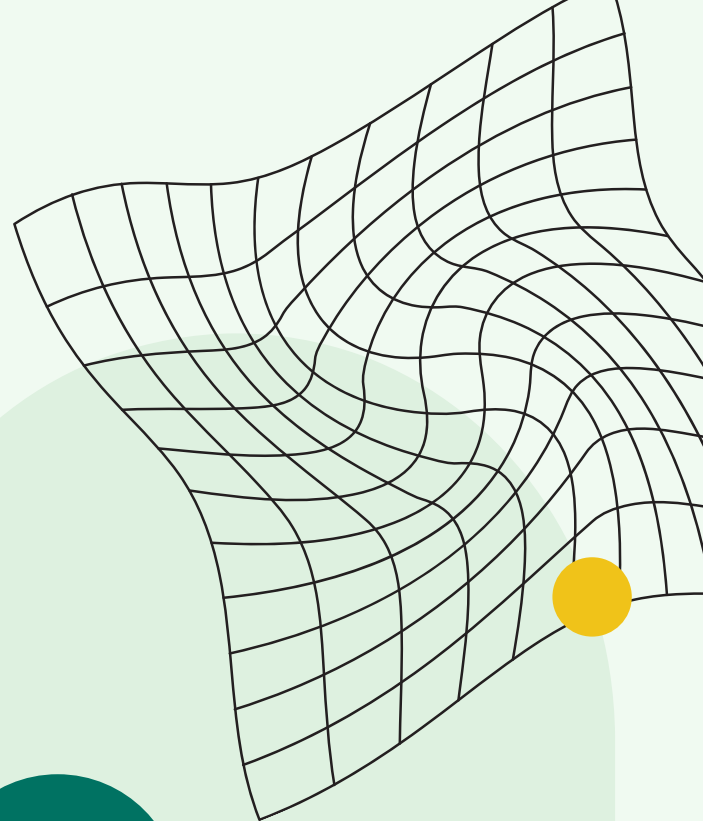
Micro-Contribution Recognition Systems

AI tracks and rewards every meaningful contribution to scientific progress—from data collection to hypothesis generation to methodology refinement—creating a more equitable system that values collaborative science over individual authorship claims, relieving publish-or-perish pressures.



Ethical Review Board for Algorithmic Influence

An independent ethics board composed of philosophers and subject matter experts evaluate any proposed AI integration in peer review workflows. Only AI tools passing rigorous ethical audits—focusing on bias, accountability, and consent—are permitted, ensuring that technology serves human values rather than drives them.



WHAT'S NEXT?

Imagining the Future



Automated Replication and Meta-Analysis

AI systems automatically attempt to replicate computational studies and continuously perform meta-analyses across related research and emerging disciplines, making the replication crisis obsolete by building verification into the publication process itself.



Manual Replication Requirement

Journals require that every computational result be independently replicated by human researchers before publication. If no human-led replication can verify AI-driven findings, the manuscript is rejected, reasserting the primacy of human reproducibility over automated confirmation.

WHAT'S NEXT?

Imagining the Future



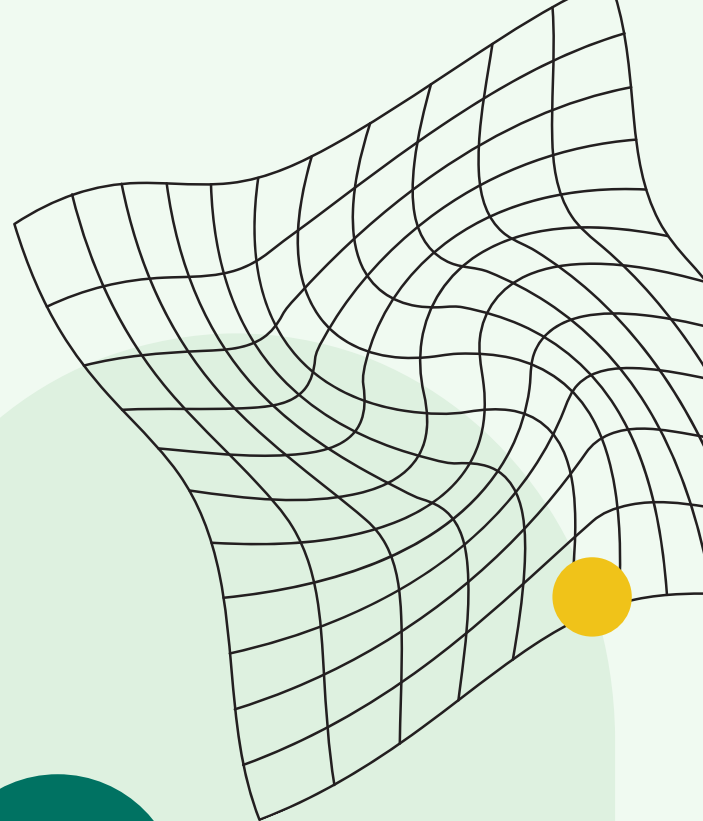
Dynamic Expertise Networks

Rather than fixed journal editorial boards, AI creates fluid networks of reviewers with precisely matched expertise for each submission, drawing from global pools of researchers and automatically updating as fields evolve and new expertise emerges, removing bias and growing reviewer pools.



Human-First Open Peer Commentary

Post-publication commentary platforms reject AI-generated critiques or meta-reviews. Only comments verified as authored by named researchers are solicited and highlighted. This policy ensures that community feedback remains a human dialogue, free from algorithmic noise or manipulation.



WHAT'S NEXT?

Imagining the Future



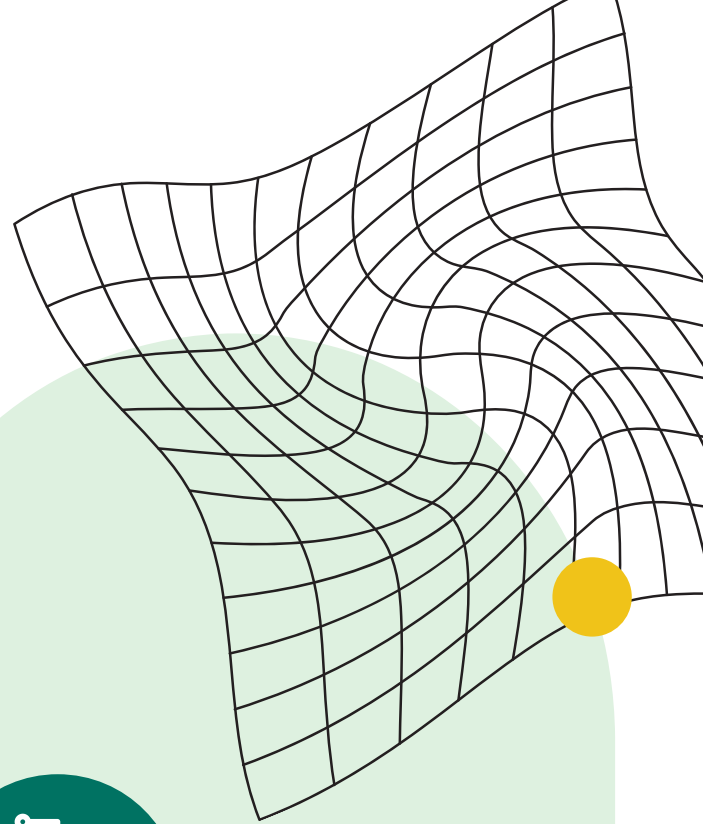
Post-Scarcity Knowledge Commons

AI eliminates the economic model of academic publishing entirely, creating freely accessible, instantly searchable, and automatically updated knowledge repositories that make traditional journals and paywalls irrelevant to scientific progress.



AI Exclusion Zones for Sensitive Topics

Research in high-stakes domains—such as biosecurity, clinical trials, and national security—are designated “AI exclusion zones.” Manuscripts in these areas are ineligible for any AI-assisted review or analysis to guard against opaque algorithmic errors with potentially catastrophic consequences.

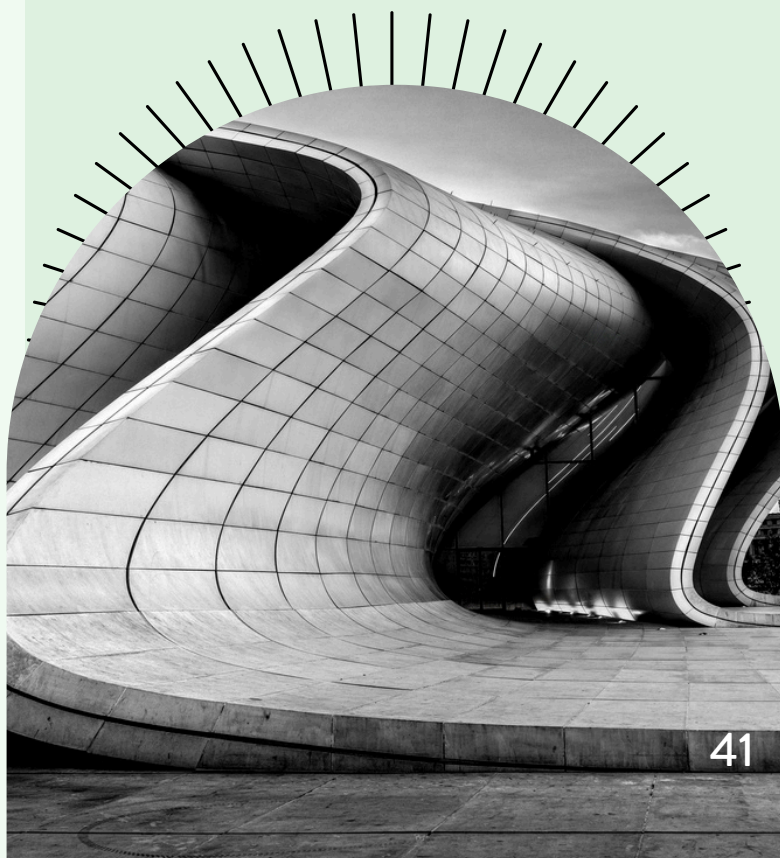
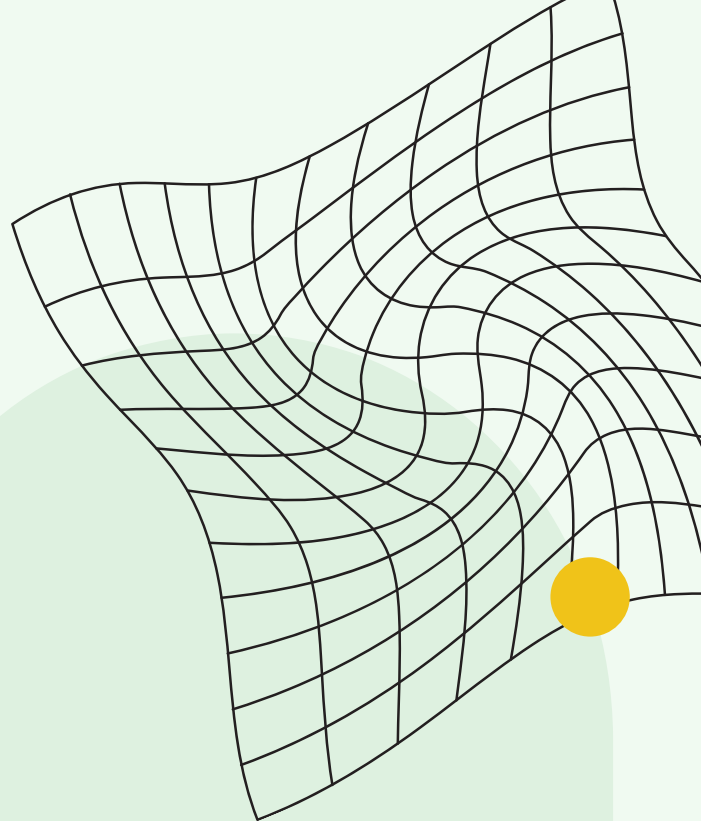


WHAT'S NEXT?

Imagining the Future

From 'what if' to 'how'

These scenarios are designed to spark your imagination. We have the power to shape a future that meets our values and creates the high-quality and diverse body of scholarship the world needs to progress. In future iterations of this report, we look forward to returning to these potential scenarios and see which direction we're trending as the years go on and AI becomes ever more ubiquitous.



Key Takeaways & Conclusions

The scholarly publishing landscape is undergoing profound transformation as peer review evolves from a publishing workflow into critical public infrastructure. Key takeaways from the first annual **Future of Peer Review Report** are:

AI INTEGRATION ACCELERATES

Early studies show AI-generated review summaries overlap 30-35% with human reviewer comments, suggesting efficiency gains without replacing expert judgment. As navigating complex technology remains a pain point for reviewers, a thoughtful, human-centered approach to AI adoption in peer review is promising.

TRANSPARENCY IS A TOP PRIORITY

Survey data reveals that 64% of users identify transparent peer review practices as critical and transparent peer review models fostering accountability and providing educational value. This demand for transparency reflects peer review's evolving role as infrastructure that underwrites public trust in science.

Key Takeaways & Conclusions (cont.)

EVOLVING REVIEWER DEMOGRAPHICS DEMAND STRATEGIC RESPONSE

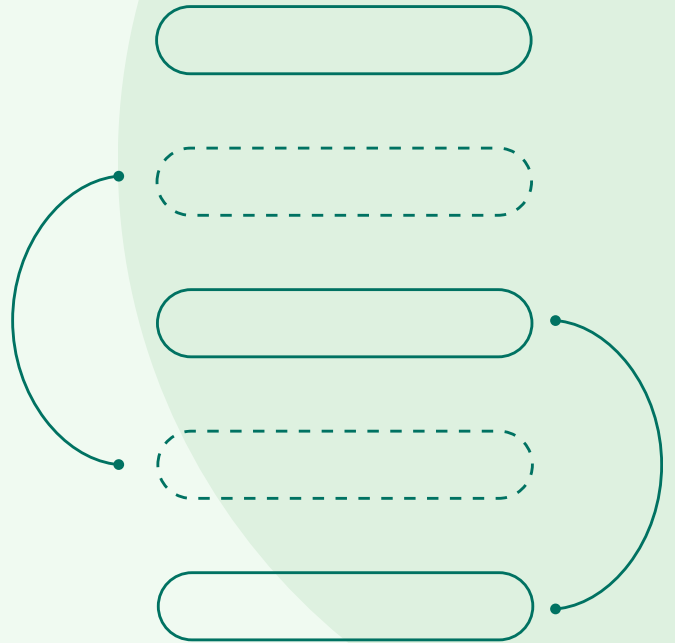
As the geographic distribution of reviewers shifts, with growth in key areas of Asia and Africa, publisher strategy to find and engage these reviewers must evolve as well. This is especially critical as it has become more difficult to find reviewers with each passing year.

BALANCING TECHNOLOGY & TRANSFORMING USER EXPERIENCE

Technological complexities still impact everyday users of peer review technologies. To relieve the burden on reviewers and encourage more reviewers to engage with content, publishers must balance new tools to support reviewers and an improved user experience.

The future of peer review requires flexibility, innovation, and recognition that peer review serves not just publishing workflows, but the broader defense of scientific credibility in an increasingly complex information ecosystem.

Let's build the future of peer review together.



Get in touch to learn more
about how ScholarOne is
building toward a global,
efficient, and sustainable
peer review technology.

Email scholarone@silverchair.com



SCHOLARONE

Resources & Methodology



ScholarOne User PainPoints

The data for this section was acquired via pop up polls run in the ScholarOne application, at the point of completion for review and manuscript submission. Polls ran for one week, and gathered data from ScholarOne users in over 100 countries.

Deep Dive into Peer Review Behavioral Trends

The data for this section was aggregated from ScholarOne usage stats spanning from 2018 through 2024.

Resources

Bauchner, H., & Rivara, F. P. (2024). Use of artificial intelligence and the future of peer review. *Health affairs scholar*, 2(5), <https://doi.org/10.1093/haschl/qxae058>

Stanford HAI. (2025, August 12). How much research is being written by large language models? Stanford Institute for Human-Centered Artificial Intelligence. <https://hai.stanford.edu/news/how-much-research-being-written-large-language-models>

Thelwall, M., & Kousha, K. (2022). Covid-19 refereeing duration and impact in major medical journals. *Quantitative Science Studies*, 3(1), 1-22. https://doi.org/10.1162/qss_a_00179

Stanford HAI. (2025, June 30). Researchers use GPT-4 to generate feedback on scientific manuscripts. Stanford Institute for Human-Centered Artificial Intelligence. <https://hai.stanford.edu/news/researchers-use-gpt-4-generate-feedback-scientific-manuscripts>

Hardwicke, T. E., et al. (2022). Post-publication critique at top-ranked journals across scientific disciplines. *Royal Society Open Science*, 9(8), 220139. <https://doi.org/10.1098/rsos.220139>