

The Honorable Rich McCormick
Chairman, Subcommittee on Investigations and Oversight
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

Re: Subcommittee Hearing on “The State of Scientific Publishing”

Dear Chairman McCormick:

My name is Dr. Caroline Sutton, and I serve as CEO of STM, the leading global association for scholarly publishers. We appreciate the Subcommittee’s attention to the critical role of scholarly publishers in the research ecosystem and welcome the opportunity to share our perspectives on the state of scientific publishing in advance of your upcoming hearing.

By disseminating American research discoveries, STM members help expand scientific knowledge and translate it into real-world impact. Our more than 160 members publish 66% of all journal articles globally, produce tens of thousands of reference works, and represent much of the \$25 billion global scholarly publishing industry. Our members employ and convene more than one million American scientists, engineers, researchers, medical experts, publishers, editors, reviewers, and other professionals who advance science, discovery, and innovation.

Collectively, STM and its members are devoted to advancing trusted research and enhancing the impact of America’s research investments. We share your view that scientific publishing is “the backbone of research integrity and public trust in science.” STM works with its members to help “ensure American science remains credible, competitive, and secure.”

Without scholarly publishing, there would be no shared system to distinguish validated knowledge from unverified claims, making it far harder for science to progress. Policymakers, researchers, and the public would face a flood of assertions without clear signals of reliability, accountability, or consensus. Inaccurate claims could outpace reliable dissemination, leading to repeated experiments, fragmented awareness of prior work, and wasted taxpayer dollars. In the age of AI—when fact is easily confused with fiction—scholarly publishing is more important than ever.

The role of publishing in advancing trusted science

Scholarly publishing is the engine that propels scientific discovery. By enabling the dissemination of validated research findings, publishing makes new knowledge accessible to scientists, policymakers, and innovators worldwide. Dissemination coupled with expert validation is not merely a convenience: it is the foundation upon which breakthroughs are built, giving readers confidence to build on prior work, avoid duplication, and accelerate progress. Formal publication also ensures attribution and recognition of researcher contributions, which is essential to

stimulate innovation. The benefits extend beyond the laboratory, fueling industry, informing public policy, and stimulating economic growth.

This process can be illustrated by an imagined American agricultural breakthrough. A plant scientist at a land-grant university publishes research on genes that help crops tolerate drought. On its own, it is one study among many. But once it appears in a peer reviewed journal, it becomes part of a trusted, accessible scientific record that other teams can test and extend. A team in Texas might connect those findings to field trials in corn and publish their results. A research group in California might link it to water-use efficiency under extreme heat conditions, sharing their findings in a leading journal. Over time, through dozens of published studies—each reviewed, cited, and improved upon—that initial insight can contribute to the development of more drought-resilient crop varieties to be used by American farmers through the interaction of the literature with policymakers, non-governmental organizations, agricultural extension services, and the farmers themselves.

Although my drought breakthrough is hypothetical, it highlights how innovation in agriculture—or any field—typically works: not as a single breakthrough, but as a chain of knowledge built, tested, and shared through a curated and trusted permanent scientific record. Publishing transforms individual discoveries into collective knowledge. Each published article, dataset, and review becomes a building block that guides future research and practical application, driving progress in public health, technological innovation, energy development, and every other American endeavor.

The process of publishing is not merely about sharing results, it is about subjecting scientific claims to rigorous scrutiny. The scientific publishing process starts from a position of constructive skepticism, putting articles through peer review and other research integrity checks, and continues past publication to ensure that claims can be challenged and interrogated, and in rare cases, corrected or retracted. Journals require authors to disclose error, limitations, and uncertainty, and be transparent about conflicts of interest. Publishing thereby upholds trust and is the platform for gold standard science.

The scholarly communication ecosystem is designed to nurture curiosity and drive the relentless pursuit of understanding, driving new discoveries, technological innovation, and new areas of research. This can only be done on the foundation of accurate, validated information that is stewarded responsibly, which is reflected in our modern digital publishing ecosystem.

The modern digital publishing ecosystem

Scientists invented the internet to share research results, and scholarly publishers were amongst the first fully digital organizations. Today, many scholarly publishers operate as technology-enabled information providers, continuously improving digital workflows for submission, peer review, production, curation, dissemination, preservation, and long-term access.

STM publishers are core infrastructure providers in the “complex machine” of the U.S. scientific enterprise, sitting at the nexus between researchers, funders, institutions, industry, and the public. Publishers invest in quality and integrity checks, peer review systems, editorial oversight, metadata

standards, and persistent identifier frameworks that enable rigorous vetting of research and researchers, as well as seamless linking for discovery. Together, these systems make vetted research easier to find, interpret, verify, and build upon. Peer review, editorial oversight, and publication ethics ensure a reliable and trustworthy record that researchers and the public can use with confidence. These functions, deployed in public-private partnerships for federally funded research, complement federal funding and program design. Without a robust and sustainable publishing layer, federal research investments would have significantly reduced impact, reproducibility, and translation to innovation.

To explore how new technologies and scientific practices are reshaping scholarly communication, STM produces an annual "[STM Trends](#)" report, which provides a macro-level view of publishing, research behaviors, and technology adoption in a graphical format. Our [latest STM Trends](#) highlights collaborations to safeguard the integrity and quality of scholarly information, including in the face of AI.

Investing in research integrity

As digital tools evolve, so do integrity threats. Publishers safeguard the integrity of the scholarly record through sustained investment in pre-publication vetting and post-publication monitoring, correction, and maintenance.

STM's member publishers are responding to forces reshaping how research is conducted and communicated. They defend against fraud, promote critical dialogue that challenges groupthink, and provide neutral, high-quality information that researchers and policymakers can trust. As bad actors and the misuse of technology increasingly threaten the scholarly record, STM and its members continue to invest and innovate in tools and products that enable America's scientific advancement.

Publishers have expanded staff and technology devoted to research integrity, but addressing threats also requires collaboration. One example of such collaboration is the [STM Integrity Hub](#), a secure, cloud-based environment that allows publishers to screen manuscripts with integrated tools to detect patterns associated with paper mills and other integrity risks. Today, [the Hub includes more than 15 screening tools](#). More than 40 publishers use the Hub in their editorial workflows, collectively screening over 125,000 manuscripts each month and intercepting an estimated 1,000 suspected paper-mill submissions monthly before they enter the scholarly record.

The Hub's [paper mill detection capabilities](#) build on STM's partnership with the [Committee on Publication Ethics \(COPE\)](#), which produced a [joint research report](#) defining paper mill, mapping how they operate, and identifying pressure points where funders, institutions, and publishers can intervene. This work continues through the [United2Act initiative](#), which brings together diverse actors in the research community to drive practical change through research, engagement, and guidance.

The Hub is just one part of a broader integrity infrastructure that includes shared standards, screening protocols, training materials, and threat-intelligence collaboration, reducing fraudulent

content and providing early warning of emerging risks. Ongoing research integrity efforts help members thoroughly review articles before publication, monitor published work, and make corrections as needed to support a trustworthy scholarly record that drives innovation.

Artificial intelligence, scholarly publishing, and scientific progress

Emerging AI capabilities may transform how research is conducted and how it is communicated, discovered, and evaluated. AI also heightens the need for strong checks on rigor and integrity for both AI inputs and AI outputs. Publishers are in an arms race with bad actors to prevent AI-generated low-quality or inaccurate content (“AI slop”) from entering and polluting the scholarly record, where it could distort public health decisions, investment priorities, and other key areas of public interest.

AI depends on accurate, high-quality knowledge works that publishers produce and maintain—another reason protecting the scientific publishing ecosystem is vital. [Research](#) shows models can be poisoned by as few as 250 malicious documents, and other experiments show AI output can be [polluted by as little as two papers](#) posted to a preprint server. Policies enabling and enhancing AI for science must support markets for the scientific publications and educational materials upon which they rely for training. They must also support the accuracy and transparency of the systems themselves to enable reliable use by researchers and practitioners.

Federal efforts to support AI for science should promote the use of high-quality, validated works in AI training and development, both through support for publishing and respect for established copyright laws and licensing mechanisms. Licensing high-quality, validated copyrighted works can improve AI outputs, incentivize the continued creation of trusted content, and support transparency and traceability of sources. Without safeguards that require traceable citations and enable validation of AI-driven hypotheses and experimentation, AI systems will be less reliable and less useful to researchers.

Publishers are experimenting with AI-assisted tools for literature synthesis, metadata enrichment, integrity checks, and accessibility, but safe deployment requires clear guardrails. AI’s utility and adoption hinge on transparency and accountability. Just as laboratory scientists disclose materials, methods, and results, AI tools should disclose key information about their operation. To combat hallucination, fabrication, and bias, AI systems should, at minimum, disclose training datasets, enable users to trace how inputs affect outputs, and submit to accountability audits. To support American scientific leadership and translation to the market, the security of AI systems used in research must be verifiable and subject to scrutiny.

STM and our members take seriously our responsibility to support ethical AI and protect the integrity of AI outputs. STM’s [online AI resource](#) highlights initiatives across the scholarly community. STM has worked with stakeholders on guidance for ethical and transparent AI use, publishing [principles](#) as early as 2021, followed by [Recommendations for a Classification of AI Use in Academic Manuscript Preparation](#) (guidance on transparent disclosure) and [Ethical and Practical Guidelines for the Use of GenAI in the Publication Process](#) (2023). We are also

collaborating on best practices and are currently accepting comment from GenAI developers, researchers, institutions, funders, policymakers, and publishers on a [discussion document on responsible use of research content in generative AI](#), which we hope will support accurate AI tools grounded in validated content.

Publishing costs are low and pay dividends for the economy

The scholarly communication ecosystem delivers scientific journals for only about one cent on the dollar, a low-cost investment for all the value and impact it provides.¹ Although on an institutional or individual paper level they may look expensive, these investments deliver. There is no value to research that is not communicated widely, with integrity, and the cost of publishing is a huge multiplier that drives the impact of investments in research.

STM's members devote significant resources to people and technology that support trustworthiness, accuracy, transparency, and accountability. Science and scientific publishing are in an 'integrity arms race' driven by increasingly sophisticated fraudulent actors, sometimes powered by AI. Detecting and preventing fraud, monitoring and reviewing the scholarly record, and maintaining the record with integrity, especially as submissions grow, create real and rising costs. Ultimately, publishers are accountable for the accuracy, reliability, and maintenance of the permanent scholarly record and they invest accordingly.

It is also important to distinguish between higher publishing costs and increased spending on publishing. U.S. research spending has doubled over the past decade. Over that period, published output rose nearly 60%, while overall journal publishing revenues increased only 18%.² As research activity grows, total publishing spending can increase even when the cost per paper stays flat or declines. The fact that publishing revenues have grown far more slowly than research activity underscores the value publishers deliver and the efficiency gains across individual publishers.

Market mechanisms give researchers choice among publications best suited to advance their work. A vibrant, competitive ecosystem also stimulates efficiency and creates incentives that reward quality and research integrity. When journals and platforms compete on reputation, rigor, and service to research communities, editorial decision-making is distributed across many independent organizations, disciplines, and expert networks—reducing the risk that any one actor's commercial, political, or ideological preferences can distort the scientific record. This competitive marketplace is therefore both good value and a practical safeguard against censorship and overreach, strengthening resilience, pluralism, and public trust in science.

¹ Global R&D expenditures are [estimated](#) at approximately \$3 trillion, while the [market size of academic publishing](#) is about \$26 billion, or \$11 billion if restricted to scientific journals. This expenditure is not equally distributed, so the amount spent on a specific project may be less or more than 1%.

² Actual growth is likely lower as the 18% calculation is before adjusting for inflation, based on Simba Information reports from [2013](#) and [2024](#). Other figures are from the National Science Foundation's National Center for Science and Engineering Statistics (NCSES): [Research and Development: U.S. Trends and International Comparisons 2025](#) and [Science and Engineering Indicators 2023: Publication Output by Region, Country, or Economy and by Scientific Field](#).

Conclusion and recommendations

In summary, scholarly publishing is essential infrastructure for America’s research enterprise: it disseminates publicly funded discoveries, enables validation and correction, and preserves a trusted record that innovators, clinicians, and policymakers can rely on. The recommendations below highlight steps Congress can take to sustain a competitive marketplace, protect lawful access to trusted knowledge, and strengthen the public-private ecosystem that supports American scientific leadership:

- Preserve a competitive, diverse publishing marketplace that supports editorial independence and reduces the risk of censorship or single-point control over access to scientific information.
- Protect established copyright and licensing mechanisms that enable lawful access to and training on high-quality scientific content for responsible AI development, while supporting traceability and citation to source materials.
- Encourage adoption of community-based standards, high-quality metadata, and persistent identifiers that improve discovery, reproducibility, and secure linking of publications, data, and other research outputs, building on existing infrastructure.
- Support public-private partnerships that strengthen research integrity for federally funded research, including shared screening, standards, and threat-intelligence capabilities.
- Invest in research integrity capacity across the ecosystem—at agencies, institutions, and journals—so that misconduct detection, investigations, corrections, and retractions can be handled quickly and consistently.
- Promote transparency and accountability expectations for AI used in science and scholarly communication, including provenance, disclosure of AI use where appropriate, and auditability of high-impact systems.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Caroline Sutton', with a decorative trail of small grey dots extending from the end of the signature.

Dr. Caroline Sutton
CEO
STM