



Description

A [recent landscape study](#) found more than 32,700 suspected fake papers linked to organised “paper mills,” and concluded that fraudulent outputs are growing faster than corrective measures can keep up. This accelerating problem now intersects with generative artificial intelligence (AI), which lowers the cost and time needed to create superficially plausible manuscripts. The result is an industry increasingly AI-enabled that continues to persist despite well-documented ethical violations. This article explains what AI-powered paper mills are, why researchers turn to them, which institutional and societal factors enable the practice, and practical steps researchers, administrators, and publishers can take to reduce risk.

What Are AI-Powered Paper Mills, and How Has AI Changed the Landscape?

A *paper mill* is a third-party service that produces manuscripts (and sometimes data, images, or authorship slots) for payment. Traditional mills have relied on template text, image reuse, and manual fabrication. The emergence and rapid improvement of large language models and other generative AI tools have reduced the technical and time barriers to producing readable, plausible text and synthetic figures, enabling mills to scale faster and with fewer specialist staff. Publishers and integrity researchers [report](#) that modern detection pipelines now explicitly look for hallmarks of generative AI use as one indicator of potential third-party manipulation.

Why Researchers Continue to Use Paper Mills: Personal Motivations

Pressure to publish remains one of the strongest drivers. Universities, funders, and many national systems still reward raw publication counts, journal placement, and citation metrics for hiring, promotion, tenure, and funding decisions. When career progression, graduation requirements, or immigration and job prospects hinge on a publication record, the temptation to shortcut the process grows especially for time-constrained or early-career researchers. Research [shows](#) the wider “publish or perish” culture correlates with higher rates of retractions and questionable practices.

Other personal motivations include:

- **Time scarcity** and workload pressures that leave little room for designing, conducting, and writing original studies.
- **Language and skills barriers** that make manuscript preparation slow or daunting for non-native English speakers.
- **Financial incentives** in some systems (bonuses for publications, grant metric rewards).
- **Desire for rapid career advancement** or to meet institutional or graduation targets.

These drivers do not excuse misconduct, but they help explain why some researchers rationalise or resort to paying for authorship or ready-made papers. [Empirical reviews](#) show third-party services range from legitimate editing to illegitimate full-service fabrication, and non-disclosure of third-party involvement is itself an ethical violation.

Institutional and Systemic Enablers

Several system-level features enable paper mills to persist:

- **Perverse incentives:** Performance metrics that emphasize quantity over quality publication counts, simplistic use of impact factors, or cash payments per paper create [demand for shortcuts](#).
- **Weak editorial workflows:** Special issues, rushed review streams, and reliance on author-suggested reviewers create exploitable gaps. The [PNAS landscape study](#) found evidence of broker networks and editorial clusters that correlate with higher rates of problematic papers.
- **Market fragmentation:** Predatory or low-barrier journals, and hijacked or compromised special-issue processes, offer [easier publication routes](#) at lower scrutiny, which mills exploit.
- **Global inequities:** Researchers in regions with fewer training resources, limited mentorship, or high publication demands may be disproportionately vulnerable to outsourcing and exploitation.
- **Insufficient detection capacity:** While screening tools have improved, detection and investigation are resource intensive; retractions and corrections still [lag behind](#) the growth of suspected fraudulent outputs.

Risks to Academic Publishing and to Researchers

AI-enabled mass production of fraudulent papers threatens science on multiple levels. First, it corrupts the evidence base: fabricated or manipulated results can mislead systematic reviews, clinical guidelines, and downstream research. Second, it wastes time and funding when other teams build on unreliable findings. Third, it undermines trust in journals, institutions, and the scientific enterprise. Finally, discovery of paper-mill involvement carries severe consequences for implicated researchers and institutions, from retraction and reputational harm to investigations, sanctions, and career derailment. High-profile mass retractions and journal closures in recent years illustrate both the scale of the problem and its real costs to publishers and institutions.

How Publishers and the Community Are Responding

Publishers and industry groups are deploying multi-pronged responses: shared screening platforms, image-forensics, network analysis, identity verification (e.g., ORCID checks), and AI-aware flagging

tools that detect unusual textual patterns or “tortured phrases.” Cross-publisher initiatives such as the STM Integrity Hub and pilot services that combine multiple screening tools are being trialled to intercept suspicious submissions before [peer review](#). COPE and other ethics bodies are updating guidance to clarify how to handle undisclosed third-party involvement and AI use. Still, detection must be coupled with transparent correction processes and better resourcing for investigations.

Practical Steps for Researchers, Administrators, and Publishers

Researchers and Mentors

- **Maintain transparency:** disclose all third-party assistance (editing, statistical help, or use of AI) in acknowledgements or methods.
- **Prioritize reproducibility:** deposit raw data, code, and protocols in trusted repositories where appropriate.
- **Develop skills and time management:** plan projects with supervisors to allow sufficient time for ethical research and writing.

University Administrators and Funders

- **Align incentives:** revise promotion and hiring criteria to value quality, reproducibility, open data, and mentoring rather than raw counts.
- **Provide support:** fund training in research integrity, academic writing, and responsible AI use; provide free or vetted language support to reduce pressure to outsource.
- **Strengthen oversight:** require ORCID IDs, verify author affiliations, and mandate data availability statements for high-risk outputs.

Publishers and Editors

- **Implement multi-layer screening** at submission triage (plagiarism, image forensics, paper-mill pattern detection).
- **Verify reviewer and editor identities:** avoid overuse of guest editors without strict oversight.
- **Publish clear, detailed retraction notices** and work with indexing services to flag unreliable literature quickly.

A Short Checklist for Research Groups and Journal Offices

- **Require and verify ORCID for all authors.**
- **Share raw data and code where possible** (repositories + links).
- **Declare any third-party assistance and any AI tools used.**
- **Run plagiarism and image checks before submission.**

Conclusion and Practical Support

AI-powered paper mills persist because demand (driven by career, institutional, and financial incentives) meets opportunity (low-barrier journals, exploitable editorial processes, and scalable generative tools). Addressing the problem requires aligned action across researchers, institutions, and

publishers: better incentives and training, robust submission screening, transparent correction procedures, and accessible, ethical support for scholars who need help with language and presentation.

For researchers seeking legitimate help with manuscript quality and compliance, consider Enago's [manuscript editing services](#) and [publication support](#) as supportive tools that can improve clarity and reduce desk rejections without compromising integrity; professional editing can complement, but not replace, responsible authorship practices. Enago's resources on publication ethics and editing can help teams avoid the temptation of unscrupulous third parties and meet journal expectations. (See [Enago Academy](#) and the [Responsible AI movement](#) pages for guidance on ethical use of AI and manuscript preparation.)

Category

1. Reporting Research

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