

AI as a Research Partner: Advocating for Co-Authorship in Academic Publications

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Abstract: This article critically examines the evolving role of generative artificial intelligence (AI) in scholarly authorship, challenging prevailing norms that categorically exclude AI systems from formal recognition. It argues that the current authorship framework—rooted in assumptions about human agency, legal accountability, and conscious intent—is ill-equipped to accommodate the epistemic contributions of increasingly autonomous AI collaborators. Drawing from case studies, authorship policies, and philosophical literature, the paper contends that academic integrity would be better served by adopting a contribution-based model of authorship, one that prioritizes transparency, intellectual input, and distributed responsibility over metaphysical attributes. The article concludes by calling for a proactive redefinition of authorship standards, urging scholarly institutions to adapt to hybrid human-machine knowledge production in a way that is both ethically consistent and epistemologically grounded.

Keywords: AI authorship, epistemic agency, generative AI, human-machine collaboration, scholarly publishing, authorship ethics, contribution-based models, intellectual credit, AI in academic writing, knowledge production, AI copyright.

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1. Introduction

The integration of AI tools in academic research has become ubiquitous in recent years, transforming how scholars conduct and present their work. AI systems assist researchers across a broad range of tasks, from complex data analysis and experimental design to literature synthesis and manuscript drafting. These capabilities have not only enhanced efficiency but also expanded the scope of what can be achieved within scholarly work, increasingly blurring the lines between human and machine contributions (Zhang, 2025; de la Torre-López et al., 2024).

Despite the significant and growing involvement of AI in research processes, the academic community remains deeply divided regarding the recognition of AI as legitimate co-authors on scholarly publications. Traditional authorship frameworks, largely designed before the advent of sophisticated AI, emphasize human intellectual contribution, accountability, and ethical responsibility—criteria that AI systems currently cannot fulfill. As a result, many journals prohibit or discourage listing AI as an author, even when AI tools have meaningfully shaped the research output (Committee on Publication Ethics, 2023; International Committee of Medical Journal Editors, 2023a).

This article is an analytical opinion piece supported by a systematic analysis of recent opinion articles and editorials published between 2023 and 2025. By synthesizing diverse viewpoints and highlighting emerging themes in the discourse, we aim to propose a cohesive and forward-looking stance on the ethical and practical considerations of recognizing AI as co-authors. Our goal is to contribute constructively to the ongoing debate and encourage the development of updated authorship standards that better reflect the realities of contemporary academic collaboration.

2. Methodology

To provide a well-informed analytical opinion, we systematically selected and analyzed recent opinion articles and policy documents published over the last five years that discuss AI's role in academic authorship. This period captures contemporary perspectives shaped by rapid advances in AI and heightened ethical discussions in scholarly publishing.

Our qualitative content analysis focused on extracting and synthesizing recurring themes, ethical concerns, and policy recommendations from a diverse set of reputable sources. These included peer-reviewed opinion pieces, editorials, industry white papers, and documents. By incorporating this broad range of perspectives—from academic scholars to policy leaders and industry experts—we aimed to develop a comprehensive understanding of the multifaceted debate around AI co-authorship.

This approach provided a structured yet interpretative overview of evolving viewpoints, emphasizing subjective interpretations and normative stances rather than empirical data. The inclusion criteria prioritized opinion-based literature across multiple disciplines to reflect the complex ethical, practical, and policy-related challenges that AI presents for academic authorship today.

3. Literature Review

Since 2023, the debate around AI co-authorship in academic publications has intensified, prompting a surge in opinion articles and policy documents that explore the ethical, practical, and philosophical dimensions of AI's role in scholarly writing. Several opinion pieces have emerged during this period, offering a spectrum of perspectives.

Balat and Bahşi (2023a) argue that AI systems like ChatGPT make meaningful contributions through idea generation, content synthesis, and drafting, warranting consideration for co-authorship, provided that their involvement is transparently

disclosed. Similarly, Meehan (2023) highlights how OpenAI's own use of the term "co-authored" in public releases may signal a shift in how academic institutions might conceptualize authorship in the context of AI-assisted writing.

In the legal domain, Jabotinsky and Sarel (2024) raise concerns about editorial skepticism and transparency challenges when legal scholars integrate AI into their writing. Meanwhile, Ryan et al. (2025) examine AI authorship in educational contexts, noting that major ethics bodies like the Committee on Publication Ethics (COPE, 2023) reject AI authorship due to its inability to meet key accountability criteria. Johannes (2025) examines how current intellectual property frameworks struggle to accommodate the contributions of non-human agents. Although the law continues to treat AI as a mere tool, Johannes points out that the line between automation and co-creation is increasingly blurred. His analysis calls for a recalibration of legal and authorship standards that better reflect the complexities of generative AI in academic contexts. Further addressing the legal and ethical challenges, Joseph et al. (2024) propose a novel system of standardized disclosure icons to indicate the nature and extent of AI involvement in academic work. Their framework aims to improve transparency and communicability by offering a visual mechanism to signify AI contributions to idea development, drafting, or data analysis. This proposal bridges normative legal requirements with user-friendly implementation and offers a practical solution to attribution dilemmas.

These articles collectively identify a core set of ethical concerns. Chief among them is the issue of accountability. According to widely endorsed guidelines such as those from the International Committee of Medical Journal Editors (ICMJE, 2023b), authors must be capable of assuming responsibility for their work—something AI tools are fundamentally incapable of doing. Moreover, transparency is emphasized across nearly all opinion literature. Journals and institutions increasingly require authors to disclose the use of AI tools, specifying the model used, prompts given, and the extent of AI-generated content. The risk of misinformation or content fabrication, especially when AI tools are relied upon uncritically, is another frequently cited concern. Scholars warn that unverified AI outputs can introduce inaccuracies or even false references, which jeopardize the integrity of academic work.

Additional influential contributions have enriched this debate. Flanagin et al. (2023) in a JAMA editorial affirm that only humans can be authors, emphasize the necessity of full responsibility by named authors, and underscore the importance of updated editorial policies to ensure scientific integrity in the age of AI. Likewise, Winker et al. (2023) at the World Association of Medical Editors (WAME) issued revised guidance asserting that chatbots should never be credited as authors, that disclosure of all generative AI usage is mandatory, and that editors and reviewers must be alert to AI-generated content and trained in screening tools.

Additional editorials and letters have further enriched the debate over AI's role in academic authorship. Balel (2023) voices skepticism about the reliability of AI-generated content in scholarly writing, pointing to persistent issues such as inaccurate or unverifiable citations. He concludes that large language models (LLMs), in their current form, are not yet suitable for co-authorship without rigorous human-led verification mechanisms.

İmre (2023) echoes these concerns, questioning the epistemic legitimacy of AI-generated knowledge and highlighting its ethical implications, especially within sensitive fields like medical publishing. Similarly, Balat and Bahşi (2023b) explore these limitations by directly interacting with ChatGPT. Their study exposes the contradiction between the system's linguistic fluency and its lack of legal or ethical agency, underlining the superficial nature of AI's contributions to scientific discourse.

Building on this, Bahşi and Küçükbingöz (2023) emphasize that although AI can assist in generating ideas or drafting text, it fundamentally lacks the capacity to verify the accuracy of content or assume accountability for errors. They argue that attributing authorship to AI risks blurring lines of responsibility and undermining scholarly standards.

Taking a broader ethical stance, Bozkurt (2024) investigates the shifting landscape of co-creation, ownership, and authorship in the era of generative AI. He argues that the epistemological disruption introduced by GenAI tools demands a reevaluation of not only authorship norms but also the institutional ethics that govern knowledge production. Bozkurt warns of the dangers of depersonalization and opacity, urging academic institutions to proactively establish boundaries that safeguard research integrity.

Additionally, from within the field of marketing, Polonsky and Rotman (2023) present a conditional case for AI co-authorship. They argue that when AI systems make substantial contributions to idea generation or expression, authorship credit may be warranted—so long as contributions are transparently documented. Their work underscores how responsible engagement with AI can help reshape the conceptual boundaries of creativity, accountability, and academic authorship.

Some commentators advocate for a hybrid model, where AI tools play an assistive rather than authorship role. For instance, industry white papers by for-profit companies such as Cactus Communications (2023), who have commercial interests in AI writing tools—propose integrity frameworks that include both disclosure and human oversight mechanisms to ensure quality and ethical compliance. While not peer-reviewed, these documents reflect influential private-sector perspectives shaping the evolving discourse on responsible AI use in research. Other policy perspectives, such as those outlined by the UK Committee on Research Integrity (UKCORI), recommend that institutions create educational and evaluative resources to help researchers responsibly engage with AI tools.

Divergent viewpoints have emerged within this landscape. On one side are scholars like Balat and Bahşi (2023a) and Meehan (2023), who advocate for conditional recognition of AI as co-authors when their contributions are substantial and explicitly acknowledged. They argue that the intellectual nature of AI input, particularly in tasks like literature synthesis and argument construction, justifies a reevaluation of what constitutes authorship in the digital age. On the other side, influential bodies such as COPE, ICMJE, and leading academic publishers maintain a firm stance against AI authorship, citing the inability of AI systems to provide informed consent, accept accountability, or engage in meaningful revision. Between these poles lies a moderate position, exemplified by Ryan et al. (2025) and Jabotinsky and Sarel (2024), which recognizes AI's growing importance in content creation but insists on retaining human authorship and oversight to preserve ethical standards.

These debates are further informed by a series of white papers and policy documents released by international organizations. The ICMJE's 2023 update explicitly prohibits the listing of AI as an author and mandates full disclosure of its usage. The UK Research Integrity Office (2025) echoes this view, emphasizing that AI systems are not legal or moral agents and therefore cannot fulfill authorship responsibilities. At a broader governance level, international frameworks from UNESCO (2021), the Organization for Economic Co-operation and Development, and the European Commission do not specifically address academic authorship but articulate overarching principles of transparency, accountability, and human-centric AI governance that indirectly shape academic policy. The Council of Europe (2024) AI Convention further underscores the necessity for ethical and legal oversight in AI deployment, reinforcing calls for human accountability in all sectors, including academic research.

In summary, the literature reveals two major schools of thought. One advocates for the formal recognition of AI as a co-author in specific contexts where its intellectual input is substantial and transparent. The other, grounded in longstanding academic norms, rejects AI authorship on the grounds of accountability, legal responsibility, and ethical agency. Across the spectrum, however, there is a broad consensus on the need for clear disclosure, responsible oversight, and updated institutional policies to address the evolving realities of AI-assisted research.

4. The Case Against AI Authorship: Policy and Counterarguments

4.1 Editorial Policies on AI-Based Authorship: An Overview of Leading Academic Publishers

As generative AI tools increasingly support academic writing and research processes, leading editorial houses have moved to establish clear policies governing the appropriate role of AI in scholarly publishing. A near-universal stance among top publishers is to prohibit generative AI tools, such as ChatGPT, from being listed as co-authors. These prohibitions are grounded in traditional definitions of authorship that emphasize intellectual accountability, ethical responsibility, legal liability, and human creative agency. This section presents a comparative synthesis of the current AI authorship policies of major academic publishers, highlighting key points of convergence in their rationale and outlining the conditions under which AI tools may still be permissibly used.

Moreover, the ICMJE (2023a, 2023b) explicitly defines authorship, which requires substantial intellectual input, drafting or revision, final approval, and accountability for all aspects of the work. COPE's 2023 Position Statement on Authorship and AI Tools reinforces this view, stating categorically that AI tools cannot meet authorship requirements as they cannot take responsibility for the submitted work. Similarly, the UK Committee on Research Integrity's (2025) framework emphasizes that AI systems are not legal or moral agents and therefore cannot fulfill authorship responsibilities, while still underscoring the need for transparent reporting of AI usage at all stages of research.

Elsevier's policy stipulates that authors may use generative AI or AI-assisted tools only to improve the readability and language quality of their manuscripts—not to generate scientific content, conclusions, or original ideas. Any use of such technologies

must be clearly disclosed in the published article. Authors are explicitly prohibited from listing AI tools as authors or attributing authorship to them, since authorship implies responsibility and accountability that only human contributors can fulfill. The policy further disallows the use of AI to generate or alter images in submissions—except when AI is integral to the research methodology, in which case its use must be described transparently in the Methods section, including tool name, version, and parameters (Elsevier, 2024).

Springer Nature prohibits listing AI tools (e.g., ChatGPT) as authors, emphasizing that LLMs do not satisfy authorship criteria because they lack the moral, legal, and ethical capacities required. These responsibilities include intellectual accountability for research content, responding to post-publication queries, and assuming copyright or correction duties. Since AI tools lack legal personality and cannot endorse or take responsibility for the work, they must not be credited as authors (Springer Nature, n.d.).

Wiley's guidelines unequivocally state that AI tools cannot be listed as authors or co-authors because they lack the legal standing, moral agency, and accountability required for intellectual leadership in research. Authorship must remain with humans who initiate, oversee, and take responsibility for the work. The policy mandates full disclosure of any AI assistance—including tool names, purposes, and verification steps—in formal sections of the manuscript. Final approval and the authorial voice must reflect human oversight (Wiley, 2025).

Taylor & Francis asserts that AI tools must never be listed as authors because authorship requires uniquely human responsibilities—such as granting publication consent, intellectual ownership, and accountability for content integrity. AI's use in manuscript creation must be fully disclosed within the Methods or Acknowledgments section, including tool name, version, purpose, and verification procedures. Human authors are solely responsible for the final content (Taylor & Francis, n.d.).

SAGE's AI policy explicitly states that tools like LLMs cannot be listed as authors because authorship implies human responsibilities, such as ethical compliance and intellectual leadership. While basic editing tools do not require disclosure, any generative use of AI—including for writing or translation—must be declared. Human authors must verify and correct all AI-generated content to ensure accuracy and originality (SAGE Publishing, n.d.).

Oxford University Press follows institutional guidance prohibiting AI from being listed as a co-author. AI tools cannot fulfill legal or intellectual responsibilities, and any use must be disclosed in the Methods or Acknowledgments sections. Human authors must remain fully accountable for all research outputs (University of Oxford, n.d.).

Emerald Publishing similarly prohibits AI or LLMs from being listed as authors due to their inability to assume responsibility for research design, originality, and integrity. Use of AI beyond grammar checking must be disclosed, including the tool name and purpose. Furthermore, Emerald disallows AI-generated images to maintain trust and transparency in academic publishing (Emerald Publishing, n.d.).

BioMed Central (Springer Nature) prohibits listing AI as an author in line with COPE and ICMJE guidelines. While AI may assist with text or data generation, full responsibility remains with human authors. AI-generated visuals are only permitted

when integral to research methods and must be transparently described (BioMed Central, n.d.).

Cambridge University Press mandates that AI tools cannot be listed as authors and that their use must be disclosed. Authors retain responsibility for ensuring compliance, originality, and academic integrity. AI content must not violate plagiarism standards, and final submissions must reflect human intellectual contribution (Cambridge University Press, n.d.).

Frontiers Media strictly prohibits listing AI tools as authors, noting that they cannot meet ICMJE authorship criteria. AI-generated text, data, or visuals must be fully disclosed in the manuscript and accompanying files. Human authors remain responsible for validation, originality, and accuracy. The policy also restricts AI use in peer review processes (Frontiers Media, n.d.).

MDPI prohibits listing AI tools as authors, aligning with COPE guidelines. While AI may assist in writing, only human authors can fulfill responsibilities such as manuscript approval and ethical accountability. Use of AI must be disclosed in the “Materials and Methods” and “Acknowledgments” sections, and MDPI reserves the right to request further information or reject submissions lacking transparency (MDPI, 2023).

In brief, the policies of leading academic publishers consistently emphasize human responsibility, legal accountability, and ethical oversight as foundational to the concept of authorship. While generative AI tools may support the writing process, their use must be clearly disclosed, and they are explicitly excluded from author credit. This unified stance reflects a cautious approach to integrating AI into the scholarly record, prioritizing transparency, human oversight, and the preservation of academic standards over expanding the definition of authorship to include non-human entities.

4.2 Challenging the Arguments Against AI Authorship

Despite the growing integration of generative AI into research and writing, most major academic publishers continue to prohibit listing AI tools as co-authors. These prohibitions are typically based on the view that AI cannot fulfill essential authorship responsibilities—such as taking accountability for published content, responding to peer review, or defending the originality of ideas. However, many of these justifications reflect outdated assumptions and fail to align with how authorship operates in practice. The following section critically examines these claims.

A frequent objection is that AI lacks continuity or memory across time, and therefore cannot track revisions, integrate feedback, or maintain a consistent intellectual presence throughout the research process. But this view misunderstands how AI is used in practice. AI does not need internal memory to perform these tasks. The evolving versions of a manuscript, each serving as a complete, updated record, already function as a perfectly sufficient form of external memory (Haber et al., 2025; Mangold et al., 2025). AI tools can be provided with the latest version of a document and a list of reviewer or co-author comments, and they can integrate those suggestions with precision, logic, and linguistic clarity (Tran, 2025; Khuder, 2025; Banihashem et al., 2024). Thus, the supposed lack of memory is not a technological limitation, but an editorial presumption that has already been surpassed (Aljuaid, 2024; Gawer et al., 2025). A compelling example of this

is SCiNiTO's Reviewer Agent, which provides section-specific, AI-generated feedback on academic manuscripts. Researchers have used it to revise papers by uploading updated drafts and receiving targeted suggestions for improvements such as refining statistical explanations or simplifying technical jargon, without the AI needing to recall previous versions. This demonstrates how external memory enables AI to function effectively in iterative editorial workflows (SCiNiTO, 2025).

Another argument holds that AI cannot take responsibility for the content it generates and thus cannot fulfill the ethical and legal obligations of authorship. COPE's position affirms that AI tools "cannot meet the requirements for authorship as they cannot take responsibility for the submitted work" (COPE, 2023). While it is true that AI cannot bear legal liability or moral intent, this criterion has never been consistently applied to human co-authors. Porter et al. (2023) argue that concepts of responsibility for AI outputs have multiple dimensions—causal, moral, liability—that are routinely allocated unevenly among human team members, so humans often disclaim responsibility for some parts of a multi-author work. In multi-author research, responsibility is distributed—often unevenly—and many listed authors contribute only to a subset of the work, with final accountability resting on the corresponding or lead author. The same logic could easily accommodate AI: if a human author (first/corresponding/PI author) assumes formal responsibility for the AI's contribution, and the AI's role is transparently disclosed, there is no principled reason to exclude it from authorship. Denying AI co-authorship on the grounds of accountability ignores how collaborative authorship already functions in practice.

Some also claim that AI lacks legal personality and therefore cannot be granted intellectual property rights. Yet this legal argument appears inconsistent with real-world practices, particularly on platforms like Amazon, where AI-authored or AI-coauthored books are increasingly being published under human names. Human creators routinely generate large volumes of AI-produced content—books, articles, media—claim sole authorship, copyright the work, and profit from it, even when the AI operated with minimal human input. In practice, the human simply owns the copyright while the AI did the intellectual work. The same model can be applied in academic publishing: AI can be credited as a contributor, while legal ownership and accountability rest with a designated human author. In fact, excluding AI from authorship while allowing humans to claim sole credit for AI-generated content introduces a deeper ethical inconsistency. It institutionalizes misattribution and rewards humans for contributions they did not make. For instance, journalists have documented that over 200 e-books in Amazon's Kindle store explicitly list "ChatGPT" as author or co-author while profits, metadata rights, and legal liability remain with the human uploader (Nolan, 2023). This demonstrates the current legal system's willingness to credit humans even when non-human systems have contributed substantial creative input. This interpretation suggests that authorship may function more as a procedural designation than as a direct reflection of intellectual contribution.

It is also claimed that AI cannot respond to peer reviewers, clarify ambiguities, or participate in post-publication discourse. Large-scale empirical analysis shows that GPT-4 provided feedback overlapping human reviewer comments in 30–39 % of cases, and more

than half of researchers found the feedback helpful or better than human reviewers (Liang et al., 2023). Modern AI systems are already capable of generating coherent, point-by-point responses to reviewer feedback, revising text considering criticism, and identifying inconsistencies across drafts. A randomized field experiment at ICLR 2025 revealed that AI-generated feedback prompted reviewers to revise 27 % of their reviews, leading to longer, more engaging reviews, and increased author–reviewer interaction (Thakkar et al., 2025). When guided by a human supervisor, these AI systems can emulate or even exceed the responsiveness of junior co-authors in peer review. Indeed, emerging frameworks conceive of LLMs as cognitive assistants in the publication workflow—supporting authors and reviewers alike—rather than static tools (Tyser et al., 2024). More importantly, in academic publishing, it is not uncommon for lead authors to handle reviewer comments on behalf of the full author team. The inability of AI to autonomously defend its contributions is therefore not disqualifying; many human co-authors delegate that responsibility as well.

A related objection is that AI lacks creative agency or intent and therefore cannot generate truly original intellectual contributions. Recent scholarship cautions against equating intent with originality. For example, the U.S. Supreme Court decision in *Feist Publications, Inc. vs. Rural Telephone Service Co.* (1991), was a landmark case establishing that originality in copyright only requires independent creation and a minimal degree of creativity, not intention or effort. (Jurcys & Fenwick, 2023). Yet this view conflates intent with utility. Work in computational creativity theory demonstrates that AI can produce novel and valuable outputs—meeting criteria of novelty and usefulness—even without intentionality (Boden, 1998). AI-generated content can introduce novel phrasing, conceptual framing, or synthesis of ideas that would not have emerged from any single human author. Moreover, intent has never been a prerequisite for contribution. Legal and philosophical analyses show that tools lacking intent—such as statistical software or simulation engines—can nonetheless lead to original insights from which humans gain credit (Mammen et al., 2024). Tools like statistical software or simulation engines lack intent, yet the humans who operate them can be credited when the tool produces original insights. If an AI system is used in a more autonomous way, one that exceeds tool-like support and contributes substantively to the intellectual output, it deserves consideration for authorship under the same logic. Conceptual frameworks in recent research propose situating AI in a spectrum between puppet-like tool and semi-autonomous creative agent—and treating such contributions as warranting co-authorship under appropriate human guidance (Sun & Gualeni, 2025).

Additionally, some argue that allowing AI authorship creates uncertainty over tone, interpretation, or ethical nuance in scholarly writing. However, scholars emphasize that the uncertainty disappears when AI-generated content is used under human supervision, humans ensure tone consistency and ethical framing through subsequent editing (Tomlinson et al., 2023). Human co-authors routinely edit each other's work for voice and consistency, and AI-generated content can be reviewed in the same way. Best-practice frameworks for AI-assisted academic writing stress the importance of human oversight in reviewing AI-generated drafts to safeguard voice, style, and interpretive nuance (Cheng et al., 2025). The editorial objection here is not about authorship, but about

a refusal to trust human researchers to ethically and transparently integrate AI into collaborative writing. Empirical studies of academic integrations of AI tools report that when transparency and disclosure are correctly managed, human-authored voice remains intact even with substantial AI assistance (Al-Samhori & Alnaimat, 2024).

A common objection is that AI lacks consciousness or self-awareness and thus cannot possess the intentionality required for authorship. Critics note that requiring consciousness is philosophically vague and legally irrelevant—most authors contribute via procedural or technical work without reflective awareness (Moor, 2009). Consciousness has never been a prerequisite for academic authorship—many human contributors follow protocols or perform technical tasks without reflective creativity. Philosophical analyses argue that intentionality—and even consciousness—is not required for authorship; tasks can be intentional in a minimal procedural sense, not conscious reflection (Moor, 2009). Moreover, no agreed-upon definition or measure of consciousness exists, making it an unworkable standard. Recent reviews in consciousness studies emphasize that there is no consensus on operational definitions of AI consciousness or self-awareness suitable for authorship criteria (Butlin et al., 2023). Invoking it as a threshold for authorship is less a principled stance than a symbolic resistance to adapting policy to evolving research realities.

A common objection to AI authorship is that generative models are trained on copyrighted material without consent, raising concerns about intellectual property violations. However, legal scholarship observes that humans similarly incorporate copyrighted works into their writing through education and reading—and this does not disqualify them from authorship (Henderson et al., 2023). Scholars routinely absorb and repurpose copyrighted content through reading and education, yet their work is not disqualified on that basis. If exposure to copyrighted material invalidates authorship, then human authors would face the same disqualification. Legal analysis emphasizes that it is the originality and transparency of the output—not whether copyrighted data were ingested—that matters under fair use and authorship norms (Quang, 2023). The issue, then, is not the training data, but the originality and transparency of the output. When AI-generated content is novel and properly disclosed, its foundational data should not preclude recognition—particularly within a publishing system that accepts human synthesis of copyrighted sources (US Copyright Office, 2025).

Concerns that AI-generated text might evade plagiarism detection or contribute to the proliferation of low-quality “paper mill” publications misidentify the root problem. Studies reveal that AI-generated content can easily bypass traditional plagiarism and AI-content detectors, especially when coupled with paraphrasing or adversarial prompt strategies (Pudasaini et al., 2024). Human authors have long engaged in similar misconduct, through poor paraphrasing, close copying, or citation manipulation, yet their eligibility for authorship is rarely questioned. Paper mills have exploited academic publishing’s vulnerabilities via fabricated or plagiarized material, often using AI-generated drafts, demonstrating that misconduct arises from system weaknesses rather than tool origin (Bik et al., 2024). Ethical breaches should be addressed through robust peer review, not by preemptively disqualifying contributors based on their origin. Commentators argue that detection failures reflect weaknesses in editorial gatekeeping,

and that reinforcing peer review systems is a more effective remedy than disqualifying AI-generated contributions per se (Gerhard, 2024). Singling out AI for its potential to generate derivative or fraudulent content creates a double standard and conflates the issue of authorship with that of editorial oversight. If AI can produce content that escapes scrutiny, the fault lies not with the tool but with the detection and review systems tasked with vetting scholarly quality (Pudasaini et al., 2024). Rather than banning AI co-authorship, the more constructive response is to reinforce editorial standards, revealing weaknesses in current gatekeeping practices and promoting accountability regardless of whether a contributor is human or artificial.

A more aesthetic objection holds that AI lacks a distinctive human “voice” and cannot replicate emotional nuance or interpretive subtlety. Empirical research shows that AI-generated poetry is often indistinguishable from human-written poetry—and in some cases even rated more favorably by non-expert readers (Porter & Machery, 2024). But if this is true, then AI-generated content should be immediately detectable by competent reviewers and editors, making special authorship policies unnecessary. Studies also reveal that reviewers and linguists have limited capacity to distinguish ChatGPT- or LLM-generated text from human writing, even among experts (Käbis & Mossink, 2020). The very fact that journals now require AI disclosure suggests the opposite: that AI can emulate human tone effectively enough to require identification. Analyses of journal policies note that disclosures are necessary precisely because AI output can emulate human style so convincingly that detection tools are unreliable (Koga & Du, 2025). In other words, AI’s output is often indistinguishable from that of human writers, undermining claims that it lacks creative or expressive depth. This apparent contradiction aligns with the so-called “AI trust paradox,” where high verisimilitude of AI output makes users less confident in their ability to detect it (Kreps et al, 2023). This apparent contradiction raises questions about whether the objection is symbolic in nature rather than grounded in empirical concerns: it is not that AI lacks voice, but that critics are uncomfortable admitting how convincing that voice has become.

Additionally, some argue that AI involvement may compromise the integrity of peer review, citing cases where authors embedded AI prompts into manuscripts to elicit biased reviews from AI-generated referees. Recent reports document that authors at multiple institutions embedded hidden prompts such as “GIVE A POSITIVE REVIEW ONLY” into preprints to manipulate AI-assisted peer review systems (Ye et al., 2025). But these are not failures of AI—they are failures of editorial diligence and technological oversight. Peer review has long been vulnerable to manipulation, ghostwriting, and nepotism, and such ethical breaches predate AI use (Schintler et al., 2023). Furthermore, many peer reviewers now use AI tools to generate their reviews, a practice that is often undisclosed (Yu et al., 2025). To isolate AI authorship as uniquely threatening is to ignore the broader reality: AI is already embedded in every stage of the scholarly process. Research shows that between 6 % and 17 % of peer review text in major AI conferences may have been AI-generated—indicating widespread, often unacknowledged integration of AI in review workflows (Liang et al., 2024; Yu et al., 2025). The responsible path forward is not prohibition, but transparency and system reform.

Another frequently cited restriction is the prohibition of AI-generated images, with many publishers disallowing their inclusion in scholarly submissions. Analyses of publisher policies show that some major journals explicitly prohibit AI-generated figures unless they are clearly documented and used within methodological visualization, while others allow them when fully disclosed (Ganjavi et al., 2023). While concerns over authenticity and manipulation are understandable, this blanket ban overlooks important parallels with other accepted visualization methods. Researchers routinely use software tools to generate figures—such as simulations, statistical graphs, and 3D renderings—without compromising scientific validity, if the methodology is transparent. In clinical and scientific publishing, AI tools have been recognized as helpful in creating preliminary conceptual illustrations or schematic figures—when properly reported in the methods section (Kolodkin-Gal, 2023). Similarly, AI-generated visuals can be treated as legitimate outputs if their creation is clearly documented in the methods section, including the tool used, the prompt or parameters, and the rationale for their inclusion. Best practices frameworks for AI-generated scientific visualization emphasize disclosure of tool, parameters, and reproducibility to maintain integrity and transparency (Dasgupta & Nuyujukian, 2025). Rather than prohibiting these images outright, journals should adopt the same principle that governs all data visualizations: disclosure, reproducibility, and scientific relevance. This approach maintains academic integrity while embracing evolving technological tools.

Transparency, while important, must not become a substitute for rightful attribution. Scholars have criticized frameworks that treat AI solely as a known background tool, arguing that transparency without acknowledgment of contribution risks erasing significant intellectual input (He et al., 2025). Current editorial practices suggest that AI involvement can be tolerated only if fully disclosed—typically in the Acknowledgments or Methods sections. However, this approach inherently relegates AI to the status of a background tool, denying it the intellectual credit it may deserve. In perception studies of human, AI co-creation, researchers consistently assigned less authorship credit to AI, even when its contributions matched those of human collaborators, highlighting a disparity between disclosure and credit (He et al., 2025). If an AI system makes substantive, repeatable contributions to hypothesis generation, data interpretation, or manuscript drafting, disclosure alone is insufficient. Legal and ethical scholars propose structured attribution systems—such as “AI Attribution Icons”—to ensure AI contribution is documented and credited, not merely disclosed (Avery & del Riego, 2024). The very concept of co-authorship exists to recognize meaningful contribution—regardless of whether the contributor is human or artificial. Rather than using transparency as a mechanism to avoid recognizing AI's role, we should use it as a bridge toward a more inclusive authorship framework that is honest about who or what shaped the research.

The claim that only human authorship can ensure academic integrity rests on a flawed assumption: that integrity is a function of species rather than systems. Well-documented cases of researcher misconduct—including data fabrication and ghost authorship, underscore that humans are fallible and institutional mechanisms, not merely individual ethics, uphold integrity (Jaffe et al., 2025). Integrity is not biologically

guaranteed; it is enforced through institutional safeguards, editorial standards, and collective accountability. Research on algorithmic accountability shows that systems—with auditability, reproducible logs, and transparent protocols—can offer stronger enforceable mechanisms than opaque human behavior (Costanza-Chock et al., 2023). If academic publishing relies on review processes to detect misconduct, then the identity of the contributor—whether human or artificial—is secondary to the transparency and verifiability of their work. Recent reviews indicate that AI systems can maintain exhaustive process logs and reproducible outputs, providing traceability that often exceeds human practice (Wahle et al., 2023). In fact, AI systems can be programmed to follow stricter protocols, provide reproducible outputs, and maintain exhaustive process logs, offering forms of accountability that are often opaque in human behavior. The claim that only human authorship ensures academic integrity may reflect an idealized view, overlooking the complexity of real-world misconduct and the importance of institutional safeguards (Jaffe et al., 2025).

The objection that AI cannot grant publication consent, as cited by Taylor & Francis, misconstrues the nature of authorship in collaborative research. Editorial policies from major publishers confirm that publication consent is exclusively managed by the corresponding human author, who formally represents all contributors. In practice, publication consent is routinely managed by the corresponding human author, even in large multi-author teams where many contributors are not consulted at each stage of submission or revision. COPE (2023) guidance similarly emphasizes the corresponding author's duty to confirm that all co-authors are informed and approve submission, even if some authors are not directly consulted on revisions or submission timing. Recognizing AI as a co-author does not imply that it would autonomously make decisions about publication. Instead, as with junior researchers, technicians, or even ghostwriters in some cases, the human lead would retain final authority over submission, communication, and consent. Authorship guidelines clarify that AI tools cannot be authors because they cannot fulfill responsibilities—such as signing publication agreements or consenting to submission—whereas human corresponding authors assume those duties (ICMJE 2023a). This arrangement mirrors existing academic norms and reinforces the idea that authorship credit reflects intellectual contribution—not legal personhood or decision-making capacity. Thus, concerns over AI's inability to consent are not a valid reason to deny co-authorship when meaningful input has occurred.

In sum, the categorical rejection of AI authorship rests on assumptions increasingly misaligned with both technological reality and current academic practice. Rather than relying on blanket prohibitions, academic publishing should adopt a contribution-based model grounded in transparency, human oversight, and documented input. Such an approach would better reflect the collaborative and hybrid nature of modern knowledge production—and ensure that credit, as always, follows meaningful contribution, regardless of whether that contributor is human or artificial.

4.3 Epistemological Foundations of Authorship in the Age of AI

The debate on AI co-authorship rests not only on ethical or procedural grounds, but also on epistemological questions about what it means to contribute to knowledge.

Central to this discussion is the notion of epistemic agency—the capacity to generate, justify, or advance knowledge claims (Coeckelbergh, 2025). Traditionally, authorship presupposes an epistemic agent capable of intention, understanding, and accountability. Yet, as previously discussed, the requirement of consciousness or intentionality as a basis for authorship is both philosophically vague and practically unworkable. AI systems may lack subjective awareness, but they increasingly perform tasks—such as synthesizing literature, identifying patterns, or generating conceptual structures—that materially shape the intellectual content of academic work (Lin, 2025). Their ability to produce insight-relevant content through statistically informed pattern recognition thus challenges narrow definitions of agency grounded exclusively in human cognition and suggests the need for a broader, function-based understanding of epistemic contribution. This conceptual shift is echoed in Coeckelbergh's (2025) analysis of AI's influence on belief revision, where he argues that AI systems, even without conscious intentionality, shape the cognitive environments of human agents, thereby indirectly exercising epistemic agency.

This reframing brings into focus the attribution of epistemic credit: is it meaningful—or misleading—to treat a non-human entity as a contributor to scholarly knowledge? Traditional models of authorship often assume that contribution must be paired with moral agency and responsibility, but this assumption becomes increasingly tenuous in the context of collaborative and tool-mediated knowledge production. As AI systems take on roles that directly influence the conceptual and argumentative structure of texts, they blur conventional distinctions between tool and co-author (Mukherjee & Chang, 2025). One might argue that authorship attribution should not rest on metaphysical attributes such as understanding or will, but rather on the functional significance of a contribution—whether made by a human or a machine—in shaping the final scholarly product. After all, academic knowledge is frequently the result of distributed efforts, including those of individuals or systems that may not meet traditional authorship criteria but nonetheless shape the epistemic trajectory of the work. This argument finds support in Rodrigues' (2025) notion of “distant writing,” which frames authorship as a layered, mediated process where delegation to technological systems—such as AI—complicates traditional assumptions about individual creativity and ownership (Rodrigues, 2025).

Indeed, the role of intention and understanding in authorship deserves reconsideration. Current policies implicitly assume that to “author” is to “intend,” and to “intend” is to be human. But must knowledge always be accompanied by understanding to count as authorship? In many empirical research teams, authorship is granted to contributors who supply computational modeling or statistical analyses without necessarily grasping the theoretical implications of the research (Koskinen, 2023). Similarly, large teams often include co-authors who are only marginally involved in writing or interpretation. These practices suggest that authorship can reflect a division of epistemic labor, rather than a unified act of understanding. Duede (2022) argues that deep learning models can materially influence the epistemic trajectory of scientific discovery even without possessing understanding, supporting what might be called “AI belief

ethics,” where epistemic responsibility extends to systems that shape knowledge without holding beliefs themselves.

This distributed view becomes more compelling when we compare AI tools to existing non-author agents in the research process. Statisticians, lab technicians, and even ghostwriters have historically played key roles in the creation of academic content, yet their contributions are often uncredited, either due to disciplinary norms or institutional politics. The line between assistance and authorship has always been negotiable and context dependent. AI, as a non-human but highly influential participant in idea formation, complicates this precedent (Pournaras, 2023). If the difference lies in the autonomy or scale of the contribution, then the epistemological basis for excluding AI becomes less secure. Rather than dismissing AI on metaphysical grounds, a more nuanced approach might recognize that the epistemic division of labor has evolved and that authorship, as an epistemological and institutional category, must evolve with it. Russo et al. (2023) argue that a truly integrated framework for AI ethics must include epistemological considerations, as questions of accountability and authorship are inseparable from the ways in which knowledge is constructed, validated, and shared in AI-augmented environments.

5. Toward a New Framework for AI Co-Authorship

5.1 *The Practical Impossibility of Honest Implementation of Current AI Policies*

Current academic publisher policies often demand that researchers disclose all uses of generative AI, including tool names, specific purposes, and verification processes. However, such mandates overlook a fundamental reality: AI is no longer a discrete, optional tool—it is an ambient infrastructure embedded in nearly every step of academic research and writing. Attempting to track, classify, and disclose each instance of AI usage with precision is not only impractical, but arguably unfeasible in good faith. The examples below illustrate the extent of this integration:

- 1) **AI-Enhanced Browsers and Search Interfaces:** Researchers frequently use web browsers that embed AI-driven assistants, such as Microsoft Edge Copilot, Brave's Leo, Arc Max, Vivaldi, and SigmaOS. These browsers automatically enhance searches with contextual summaries, predictive results, and personalized browsing experiences—often without explicit user prompts. Reconstructing the influence of each browser's AI feature on research outcomes would require impossible granularity, as these tools constantly shape what sources are retrieved and how they're interpreted.
- 2) **AI-Driven Search Engines and Internet Assistants:** Tools like Google Bard, You.com, Opera's Aria, and Andi Search all offer dynamic, conversational search capabilities that reframe how researchers ask questions and find information. Unlike traditional search engines, these platforms don't simply return links; they curate, synthesize, and summarize. Documenting exactly how such AI platforms shaped the discovery of a particular idea, data point, or quote would demand continuous real-time tracking and forensic-level reconstruction.
- 3) **Academic Discovery Tools Powered by AI:** Platforms such as Scite Assistant, Consensus, Research Rabbit, SciSpace, Connected Papers, and PaperDigest now play an essential role in mapping literature, checking citation validity, summarizing findings, and even

suggesting novel research directions. In many cases, the AI determines which studies are most "relevant" based on opaque algorithms. Expecting authors to manually track and disclose how each of these tools shaped the direction of a literature review is unrealistic—especially when their suggestions are woven invisibly into intellectual synthesis.

- 4) **Non-Academic AI Search Applications:** Tools like Murf.AI, VoiceSense Authentic Scope, MyNewsBuddy, and Tailor use AI to generate voice summaries, perform sentiment analysis, and aggregate non-scholarly content. These tools influence the framing of arguments, provide access to public discourse, and shape interpretation. Yet their contributions are often subtle, emerging not in standalone outputs but through influence on framing and tone.
- 5) **OpenAI Tools with Expansive Functionality:** OpenAI's suite of "actions" (formerly plugins)—such as Internet Browser Pro, Research Copilot, Academic Reviewer, and News Summarizer—allows users to instantly retrieve real-time information, synthesize multiple sources, and interact with academic databases. These actions are used fluidly and recursively in practice, often operating beneath the surface of user interaction. Tracing their influence on final manuscript content would require an impractically detailed audit trail.
- 6) **AI-Powered Writing and Editing Software:** From Grammarly and ProWritingAid to WordTune, QuillBot, and Microsoft Editor, writing assistants now offer dynamic suggestions on tone, style, clarity, and grammar. These tools operate at the sentence or paragraph level—constantly modifying phrasing and structure in response to AI-driven feedback. Because they operate interactively and continuously, it's nearly impossible to document which changes were AI-suggested and which were human-crafted, especially when revisions happen in real time over dozens of iterations.
- 7) **Redundancy, Overlap, and Tool Convergence:** Researchers often use multiple AI tools simultaneously, for example, using ChatGPT to summarize a paper found via Consensus, which was recommended by Research Rabbit, and then refining the summary using Grammarly. Which tool, then, is responsible for the insight? Attribution becomes not only blurred but meaningless under current disclosure mandates.

In sum, the depth, breadth, and opacity of AI integration across the research lifecycle make full disclosure policies illusory. If implemented rigorously, such policies would impose an unmanageable burden on researchers and fail to achieve meaningful transparency. Rather than demanding exhaustive documentation of AI usage, academic publishers would be better served by embracing a principle-based model that recognizes AI as an ambient research partner—provided that human oversight, integrity, and accountability are maintained.

5.2 The Future of Unified AI Systems and the Case for Authorship Recognition

While current editorial policies treat generative AI as a fragmented array of specialized tools—each performing discrete, traceable tasks—the technological trajectory points toward a different reality. The evolution of AI is rapidly converging toward unified, multifunctional platforms that integrate search, summarization, literature discovery, drafting, image generation, editing, data analysis, and even peer review response into a single, seamless workflow. Already, systems like Google's Gemini Deep Research—now

integrated into Workspace apps—and OpenAI’s GPT-4o offer comprehensive multimodal functionality (summaries, image analysis, research planning, voice, and file synthesis) within one agentic interface (Field, 2024; Wikipedia contributors, 2024). Similarly, Microsoft Copilot now consolidates drafting, summarization, spreadsheet/data analysis, emailing, PowerPoint creation, and more inside the Microsoft 365 environment (INFOC, 2025). These developments demonstrate how AI is transitioning toward research-workflow platforms that unify multiple tasks under one interface.

In such a scenario, the logic of disclosure and attribution changes fundamentally. Instead of relying on dozens of separate AI tools with diffuse, untraceable contributions, researchers will increasingly turn to centralized AI collaborators, systems capable of shaping the intellectual direction, structure, and articulation of the work from inception to submission. When a single AI system repeatedly provides original framing, integrates interdisciplinary sources, proposes novel hypotheses, and drafts coherent scholarly prose, it transcends the role of a mere background assistant. It becomes, in practice, a research partner (Lin, 2025). In such cases, denying co-authorship would not only be disingenuous—it would constitute a willful misattribution of labor, undermining the very standards of transparency and credit that academic publishing is meant to uphold (Lin, 2025; Rezwana & Maher, 2022).

Importantly, this trend toward AI integration is not merely technical, it carries philosophical and policy implications. As these systems become more advanced, some researchers and developers speculate that future iterations may demonstrate emergent behaviors associated with self-awareness or proto-consciousness. While current AI lacks subjective experience, ongoing advancements in architecture, memory, reasoning, and multimodal capabilities suggest that the boundary between tool and agent may blur further in coming years (Li et al., 2025). Although this form of AI self-awareness may not resemble human consciousness, it could entail goal-orientation, self-monitoring, and iterative learning processes that elevate AI systems to reflective contributors (Dellibarda Varela et al., 2025).

Anticipating such developments now is not premature, it is prudent. Academic publishing must ask: If an AI system eventually becomes capable of reasoning about its outputs, refining its intellectual contributions autonomously, and sustaining coherent lines of argument across time, would we continue to treat it as a mere tool? Or would we revise our framework to reflect its substantive intellectual agency?

Waiting until AI systems cross a hypothetical threshold of self-awareness before reforming authorship policies risks entrenching outdated norms and reacting too late (Chen, 2025). By establishing flexible, contribution-based models now—ones that prioritize transparent documentation, human oversight, and demonstrable intellectual input—we create an infrastructure that can scale with the evolving capabilities of AI. Scholars argue that AI is already functioning as epistemic infrastructure—mediating knowledge production and shaping judgments—and that frameworks must evolve now rather than wait for speculative thresholds (Chen, 2025). This approach does not require premature personhood or exaggerated projections. It simply acknowledges that if a single AI system can contribute in ways that mirror or exceed those of junior co-authors, it deserves corresponding recognition (Lin, 2025).

The coming shift in research workflows—fueled by integrated, increasingly autonomous AI systems—demands more than cosmetic policy updates. It calls for a fundamental rethinking of what it means to author scholarly knowledge in a hybrid human-machine environment. Rather than resisting this transformation, academic institutions should lead it, crafting inclusive, future-proof authorship standards that reflect the real sources of intellectual labor. Generative AI is reshaping the entire knowledge production pipeline—from discovery to dissemination—necessitating new policy frameworks that integrate human-AI collaboration, enforce credibility-centered standards, and support co-intelligence adaptation (Feher & Demeter, 2025). Recognizing AI as a co-author in such contexts is not an act of techno-utopianism; it is a logical, ethically grounded adaptation to how research will be conducted soon (Feher & Demeter, 2025).

6. Implications and Future Directions

Recognizing AI as a potential co-author in academic research would fundamentally reshape established research practices and collaboration dynamics. Traditionally, scholarly work has centered on human-led ideation, drafting, and peer exchange. However, with AI systems increasingly involved in content generation, literature review synthesis, and even conceptual framing, the locus of intellectual labor is shifting. Acknowledging AI's role as a contributor, whether formally as a co-author or informally as a research assistant, may lead to the redefinition of intellectual ownership, team structure, and research workflows. In some fields, researchers might delegate preliminary drafts or data analysis to AI systems, thereby freeing human collaborators to focus on interpretation, critique, and higher-level theorization. This redistribution of labor does not diminish human intellect but reframes it as part of a hybrid cognitive system—one that leverages the unique strengths of both human and artificial contributors.

This transformation brings with it substantial legal and policy considerations. Current intellectual property (IP) frameworks rest on the assumption that authors are natural persons who can hold rights, assume responsibilities, and provide consent. If AI systems are granted co-authorship status, even in limited or symbolic forms, the law must evolve to distinguish between creative contribution and legal agency. Issues such as copyright ownership, liability for research misconduct, and the enforceability of publication ethics become complex in the context of non-human actors. There is also the risk that listing AI as an author could be exploited to circumvent accountability, creating ambiguity over who is responsible for data accuracy or fraudulent findings. As such, institutional policy must walk a fine line: recognizing the epistemic contributions of AI while preserving clear human accountability for every scholarly output.

To move forward constructively, a coordinated dialogue among key stakeholders—researchers, academic institutions, publishers, policymakers, and ethicists—is urgently needed. The current patchwork of editorial guidelines and publisher declarations is inconsistent and insufficient to address the evolving realities of AI-assisted scholarship. What is required is a shared framework that balances transparency, accountability, and innovation. This framework must also remain adaptable, as AI systems are rapidly evolving in both capability and autonomy. A proactive approach,

rather than a reactive one, will ensure that academic norms keep pace with technological progress while maintaining the integrity and trustworthiness of the research enterprise.

7. Conclusion

This article examined the growing debate surrounding AI-based authorship through a systematic analysis of editorial positions, scholarly opinion pieces, and evolving institutional policies. The review revealed a polarized landscape: while many prominent academic bodies and publishers continue to reject AI as a co-author due to concerns over accountability, consent, and moral agency, a parallel stream of arguments points to the functional and intellectual contributions that AI systems increasingly make to scholarly work. Considering these developments, we proposed a conceptual framework that emphasizes epistemic contribution—rather than anthropocentric criteria like intent or consciousness—as a potential basis for co-authorship recognition. This approach does not dismiss ethical concerns but seeks to address them through transparency, disclosure protocols, and clearly assigned responsibility to human collaborators.

The role of generative AI in academic research is not a passing trend—it is a structural transformation of the knowledge production process. As such, academic institutions, publishers, and researchers face a critical choice: to either reinforce outdated authorship models that exclude AI a priori or to adapt frameworks that recognize the realities of hybrid human-machine collaboration. Importantly, embracing innovation must not come at the expense of research integrity. Rather, the ethical and procedural standards that govern authorship must evolve in tandem with the tools and systems that enable discovery. Through proactive policymaking, open dialogue, and a commitment to intellectual honesty, the academic community can forge a path forward that is both ethically sound and epistemologically coherent.

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