



List of contents available at [Lingua Technica](https://journal.arjunu.org/index.php/lingtech)

## Lingua Technica: Journal of Digital Literary Studies

homepage: <https://journal.arjunu.org/index.php/lingtech>



### Algorithmic muse reconsidered: creativity, constraint, and the politics of machine co-authorship

Inero Valbuena Ancho <sup>1\*</sup>  and Ahmad Dafa Asyaddad

<sup>1</sup> University of the Philippines Los Banos, Philippines

<sup>2</sup> Universitas Dr. Soetomo Surabaya, Indonesia

\* Corresponding author. Email: [ancho.iv@pnu.edu.ph](mailto:ancho.iv@pnu.edu.ph)

#### ABSTRACT

##### Article history:

Received May 30, 2026

Revised Jun 25, 2026

Accepted Jul 23, 2026

Published Jul 31, 2026

##### Keywords:

algorithmic authorship;  
creative constraints;  
human–AI co-creativity;  
machine co-authorship;  
platform governance

**Background:** Generative artificial intelligence has transformed literary production across publishing, education, cultural industries, and digital platforms while intensifying disputes over creativity, attribution, ownership, accountability, and platform power. **Objective:** This study examines how creative agency, constraint regimes, and authorship governance are configured across contemporary machine co-authorship discourse and what these configurations reveal about institutional legitimacy. **Method:** Using qualitative comparative documentary analysis, this study coded forty publicly accessible records comprising thirteen primary documents, seventeen secondary sources, and ten contextual materials published or current between 2021 and 2026 through explicit decision rules and evidence notes. **Results:** Creative agency was most frequently represented as an integrated human–machine–platform chain combining initiation, prompting, generation, revision, and mediation. Institutional constraints dominated the corpus, while aesthetic, technical, legal, economic, and data-related conditions operated as enabling, limiting, or simultaneously ambivalent forces. Human accountability and platform power were substantially more prevalent than contractual output ownership, indicating that creative participation, legal authorship, and institutional control remain unevenly distributed. **Implication:** Legitimate machine co-authorship requires transparent contribution, proportionate attribution, human editorial responsibility, accountable training practices, and governance capable of protecting creative diversity. **Novelty:** This study contributes an integrated framework that connects distributed agency, creativity-under-constraint, and authorship politics within a single document-level analytical architecture.

DOI: <https://doi.org/10.64595/2h40cg81>

\*) Copyright © 2026 Inero Valbuena Ancho & Ahmad Dafa Asyaddad

This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/)  which permits use, distribution, reproduction, and adaptation in any medium, provided that the original work is properly cited and any adapted material is distributed under the same license.

## INTRODUCTION

Generative artificial intelligence has moved machine participation in writing from debate into cultural production, yet legitimacy remains unsettled. An analysis of 300 leading journals showed that authorship institutions were already developing rules for AI use, indicating that attribution had become an operational rather than hypothetical concern (Lund & Naheem, 2023). Audience research reveals comparable tension: across four studies, algorithm-assisted producers received more credit than human-assisted producers (Jago & Carroll, 2023), whereas three experiments involving 560 participants showed that disclosed AI co-creation reduced liking and recognition, particularly when machines entered implementation rather than ideation (Messer, 2024). These patterns expose a consequential contradiction. Generative systems can increase productive capacity and redistribute creative opportunity, but they also obscure effort, intentionality, and responsibility. Because literary authorship organizes reputation, income, copyright, and cultural authority, machine co-authorship cannot be assessed solely by output quality. It must be examined as a negotiated institutional arrangement of contribution, recognition, and power.

Existing scholarship has established several foundations for such analysis. Human-AI creativity has been conceptualized as multilevel collaboration and ethically governed co-creation rather than simple automation (Grilli & Pedota, 2024; Vinchon et al., 2023). Experimental research also demonstrates that active co-creation and creative self-efficacy shape the benefits of AI assistance (McGuire et al., 2024). Constraint theory further shows that restrictions may narrow action while simultaneously focusing creative search (Tromp, 2022). Meanwhile, legal and communication scholarship has examined human control, disclosure, and responsibility in AI-assisted works (Fritz, 2025; Gunkel, 2025). However, these strands remain insufficiently integrated. Creativity is often measured separately from authorship, authorship separately from infrastructure, and infrastructure separately from labor and training data. Consequently, limited attention has been given to how creative affordances, constraint regimes, attribution practices, and political-economic asymmetries operate together within machine co-authorship across contemporary literary production systems, particularly when platforms govern both generative capacity and conditions of recognition.

This study investigates machine co-authorship as a distributed yet asymmetrical configuration of literary production. It asks, first, how creative agency is allocated across human initiation, prompt formulation, machine generation, selection, revision, and platform mediation. Second, it examines which technical, aesthetic, legal, economic, institutional, and data-related constraints enable, restrict, or reorganize creative practice. Third, it considers how documents governing AI-assisted production position authorship credit, disclosure, output ownership, training consent, compensation, labor displacement, human accountability, and platform authority. These questions are addressed through a documentary corpus comprising platform policies, professional guidance, creator accounts, scholarly research, publishing rules, and regulatory materials. Rather than treating every document as equivalent evidence, this study distinguishes primary statements, secondary analysis, and contextual governance texts. This design enables comparison across creative practice, institutional regulation, and public legitimation while avoiding causal claims about individual behavior. It therefore connects micro-level production decisions with meso-level organizational rules and macro-level political economy.

This study advances the argument that machine co-authorship is neither autonomous machine creativity nor neutral human tool use, but a governed process in which agency is distributed while authority remains concentrated. Prompts, models, interfaces, training corpora, editors, publishers, and audiences all materially condition what can be produced; however, they do not possess equivalent capacities to claim credit, exercise consent, receive compensation, or bear responsibility. Research on foundation models as platforms suggests that creative possibility is inseparable from infrastructural ownership (Burkhardt & Rieder, 2024), while AI-mediated writing may unsettle authorial hierarchies (Tsao & Noguees, 2024). Accordingly, constraints should not be interpreted as barriers: some stimulate exploration, whereas others standardize style, conceal cultural labor, or consolidate platform dependence. The central implication is that legitimate co-authorship requires more than disclosure. It requires traceable human contribution, proportionate attribution, accountable editorial control, transparent training practices, and governance arrangements capable of protecting creative diversity without denying productive experimentation.

## LITERATURE REVIEW

### *Human–AI co-creativity*

Human–AI co-creativity describes creative production emerging from interaction between human judgment and computational generation, yet scholars disagree about where agency resides. Relational accounts treat AI as an artifact whose significance develops through situated collaboration, whereas instrumental accounts preserve a hierarchy between human intention and machine assistance (Lim et al., 2023; Shi et al., 2023). More expansive approaches describe co-creation as distributed across prompts, interfaces, models, and organizational settings (Vinchon et al., 2023; Grilli & Pedota, 2024). Critical perspectives, however, warn that distribution should not imply equivalence in intention, accountability, or social power in practice (Gunkel, 2025; Burkhardt & Rieder, 2024).

This distributed account can be operationalized through five indicators: human initiation, prompt direction, machine generation, human selection or revision, and platform mediation. Research on co-creation shows that active participation and self-efficacy distinguish meaningful collaboration from passive editing (McGuire et al., 2024). Studies of design workflows similarly identify AI-assisted, human-assisted, and reciprocal configurations rather than a single partnership model (Shi et al., 2023). Experimental work further suggests that collaboration intensity matters, because moderate involvement may outperform both minimal and excessive reliance (Huang, 2025). These indicators therefore capture contribution across stages while preserving differences between technical production, evaluative judgment, and institutional control.

### *Creative constraint*

Creative constraint refers to conditions that delimit, organize, or redirect the search for novel and valuable outcomes. Foundational constraint theory rejects the assumption that restriction merely suppresses creativity, arguing instead that constraints can focus attention, reduce search complexity, and generate productive difficulty (Tromp, 2022). In AI-assisted practice, however, constraints also arise from model architecture, training data, interface design, and probabilistic generation. Some scholars emphasize ideation and stylistic experimentation (Garcia, 2024; Komura & Yamada, 2026), whereas others identify overreliance, authenticity loss, and uncertainty (Ahuja et al., 2025; Heimstad et al., 2025). Constraint is therefore simultaneously cognitive, aesthetic, technical, social, and institutional.

A rigorous constraint framework should distinguish technical, aesthetic, legal, economic, institutional, and data-related dimensions. Technical constraints concern controllability, model error, and interface affordances; aesthetic constraints involve originality, voice, authenticity, and diversity (Hutson, 2025; Zhang et al., 2025). Legal and institutional constraints regulate disclosure, copyrightability, and permissible authorship (Fritz, 2025; Lund & Naheem, 2023). Economic constraints include access, compensation, market saturation, and labor displacement, while data constraints concern provenance, consent, and training composition (Kalhor et al., 2025; Subagiyo & Wibisono, 2025). Their function may be enabling, limiting, or ambivalent, depending upon particular context, workflow, institutional authority, and the historically situated actor.

### *Machine co-authorship*

Machine co-authorship concerns how creative contribution becomes converted into credit, ownership, responsibility, and legitimacy. Legal scholarship generally reserves authorship for humans capable of intention and accountability, even when AI contributes substantially to production (Xiao, 2022; Fritz, 2025). By contrast, posthuman and communication-oriented accounts question solitary authorship and emphasize dialogical or distributed production (Gunkel, 2025; Tsao & Noguees, 2024). Social-psychological research complicates both positions by showing that audiences do not allocate credit proportionally to actual assistance (Jago & Carroll, 2023). Co-authorship is therefore not merely a descriptive label for collaboration, but a contested institutional status shaped by law, norms, and perception.

Its principal indicators include human-authorship requirements, AI disclosure, output ownership, training consent and compensation, labor displacement, human accountability, and platform power. Authorship policies commonly exclude AI from bylines because systems cannot approve, defend, or answer for published work (Lund & Naheem, 2023). Copyright debates instead focus on demonstrable human control and original contribution (Fritz, 2025; Ali et al., 2024). Training disputes shift attention upstream toward

consent, remuneration, and cultural labor, while platform studies expose infrastructural asymmetries governing access and visibility (Burkhardt & Rieder, 2024; Benbya et al., 2024). This study therefore treats machine co-authorship as distributed contribution under unequal governance.

## METHOD

This study examines forty publicly accessible documents as material objects, each treated as a bounded unit when it substantively addresses creative agency, constraint, attribution, training data, labor, ownership, or platform governance. Corpus coverage spans 1 January 2021 to 11 July 2026, although retained dated documents fall between 2022 and 2026, alongside current undated policies accessed in 2026. Units include platform terms, professional guidance, collective bargaining documents, creator accounts, journal articles, regulatory materials, and publisher policies. This heterogeneity enables comparison across production, interpretation, and governance while preserving each document's institutional context, evidentiary status, and communicative purpose within analysis as collected evidence.

A qualitative comparative documentary design guides this study, combining structured content analysis with critical discourse interpretation. This design is appropriate because machine co-authorship is constituted not only through creative practice but also through classifications, contracts, policies, legal thresholds, and public narratives. Deductive categories were derived from scholarship on distributed creativity, integrated constraints, platform power, and accountable authorship (Tromp, 2022; Lim et al., 2023; Burkhardt & Rieder, 2024; Gunkel, 2025). Interpretive comparison then examined how comparable terms acquired different meanings across source classes. This design supports analytical generalization while avoiding causal claims about individual writers, audiences, or institutional effects within this corpus.

Information was drawn from three evidentiary strata. Primary materials comprise thirteen platform, guild, labor, publisher, and creator documents that directly articulate rules or practices. Seventeen secondary items include fifteen peer-reviewed journal articles, one established news report, and one clearly identified preprint. Ten contextual documents comprise government guidance, regulations, consultations, reports, international policy materials, and publisher authorship policies. Sources were retained from official institutional domains, recognized academic publishers, DOI-linked records, or established media. This hierarchy distinguishes direct organizational positions from scholarly interpretation and regulatory context, thereby preventing unlike documents from being treated as evidentially equivalent during comparison and synthesis for interpretation.

Data collection followed a reproducible search and screening protocol. Searches combined terms such as "machine co-authorship," "human-AI co-creativity," "creative constraints," "AI authorship credit," "training consent," "AI disclosure," and "platform ownership." Candidate records were screened for public accessibility, topical relevance, source authority, date, and sufficient contextual detail. Exact DOI matches, canonical URLs, and normalized title-author keys were used to remove duplicates, with official or publisher versions preferred over mirrors. For every retained item, researchers stored title, date, institution, link, context, analytical summary, short quotation, source class, and coding notes. Full copyrighted texts were not reproduced within this corpus during subsequent analysis.

Analysis proceeded through five linked stages. First, documents were familiarized, classified, and memoed. Second, distributed creative agency was mapped across human initiation, prompt direction, machine generation, human selection or revision, and platform mediation. Third, technical, aesthetic, legal, economic, institutional, and data constraints were coded by function and salience. Fourth, authorship governance was examined through human-authorship requirements, disclosure, ownership, training consent, compensation, labor displacement, accountability, and platform power. Fifth, patterns were compared across evidentiary strata, including contradictory and negative cases. Reliability was strengthened through explicit decision rules, evidence notes, repeated code checking, and an auditable document-level coding trail for analytical transparency.

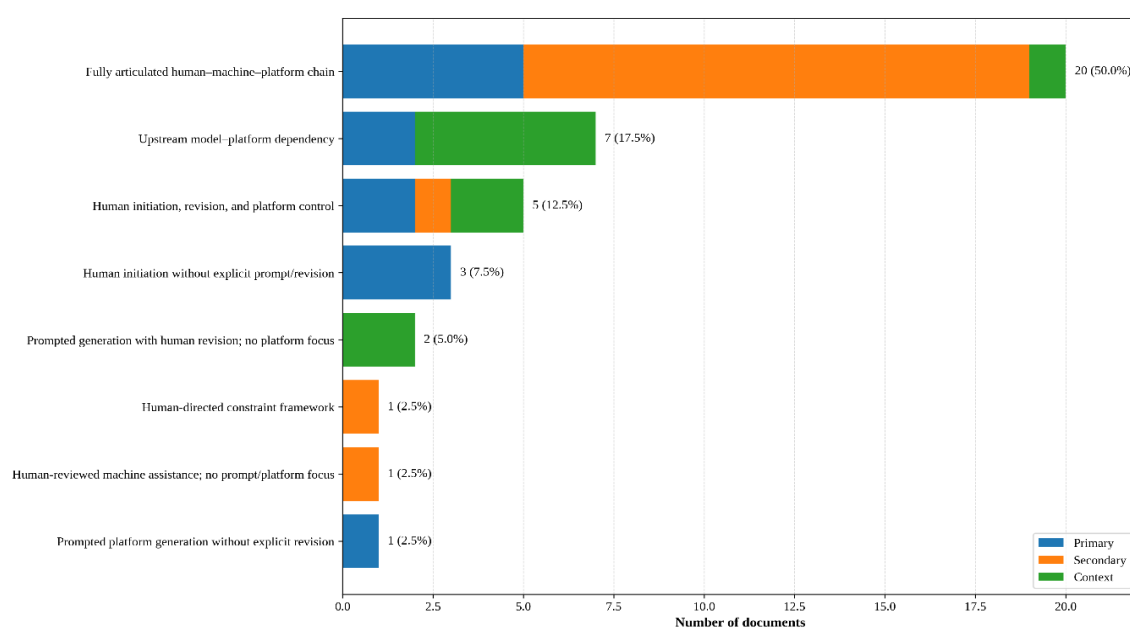
**Table 1.** Composition of the documentary dataset

| Code    | Data type                               | Sources or institutions                                                         | Geographical scope                                     | Period                 | Items | Principal characteristics                                                                       |
|---------|-----------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------|------------------------|-------|-------------------------------------------------------------------------------------------------|
| PRI-PLT | Platform governance documents           | OpenAI, Anthropic, Amazon KDP                                                   | Global                                                 | 2022–2026/current      | 4     | Output ownership, publication conditions, disclosure, generated-versus-assisted classifications |
| PRI-ORG | Author and labor organization documents | Authors Guild, Writers Guild of America West, Society of Authors                | United States, United Kingdom, global                  | 2023–2026/current      | 7     | Consent, compensation, authorship protection, labor rights, contract clauses, certification     |
| PRI-CRP | Creator and publisher practice accounts | Pushkin Industries, The Creative Penn                                           | United States, Canada, Ireland, United Kingdom, global | 2022–2023              | 2     | Documented co-writing workflows, prompting, editing, selection, publication framing             |
| SEC-JRN | Peer-reviewed scholarship               | SAGE, Wiley, ACM, Nature, Elsevier, APA, Science and related journal publishers | International                                          | 2023–2025              | 15    | Creativity, collaboration, attribution, authenticity, legal authorship, platform power          |
| SEC-MED | Established news reporting              | Reuters                                                                         | Global                                                 | 2023                   | 1     | AI-generated publishing markets, authorship labels, production scale                            |
| SEC-PRP | Academic preprint                       | arXiv                                                                           | International                                          | 2024                   | 1     | Writer authenticity and co-writing experience; explicitly identified as non-peer-reviewed       |
| CTX-GOV | Government and supranational documents  | U.S. Copyright Office, European Union, UK Government                            | United States, European Union, United Kingdom          | 2023–2026              | 6     | Copyrightability, registration, training, transparency, licensing, regulation                   |
| CTX-PUB | Publisher authorship policies           | Nature Portfolio, Elsevier                                                      | Global                                                 | Current; accessed 2026 | 3     | Disclosure, verification, accountability, exclusion of AI from bylines                          |
| CTX-INT | International policy material           | World Intellectual Property Organization                                        | Global                                                 | Current; accessed 2026 | 1     | Copyright infrastructure, creator protection, licensing, innovation governance                  |

## RESULTS

### *Distributed creative agency in machine co-authorship*

Creative agency in machine co-authorship is distributed across recurrent production configurations rather than located in a single actor. Eight combinations emerged from five coded indicators: human initiation, prompt direction, machine generation, human selection or revision, and platform mediation. Each configuration represents a distinct arrangement of participation, not a hierarchy of creative value. Frequencies were calculated at document level across forty records, while primary, secondary, and contextual distributions preserve evidentiary differences. Because one document was assigned to one dominant configuration, percentages sum to 100 percent. This configuration matrix therefore identifies how public policies, creator accounts, scholarship, and regulatory materials organize creative contribution, while Figure 1 retains exactly the same frequencies and source-class variations reported in Table 2.



**Figure 1.** Distributed-agency configurations by evidentiary stratum

A fully articulated human-machine-platform chain dominates twenty documents, or 50.0 percent, and appears mainly in secondary scholarship, with fourteen records, alongside five primary and one contextual document. Its defining pattern combines human initiation and prompting with machine generation, subsequent human revision, and platform mediation. Gunkel's formulation that "creative production is distributed, dialogical, and co-constituted" captures this integrated arrangement. Upstream model-platform dependency accounts for seven documents, concentrated in contextual sources, and foregrounds training infrastructure rather than immediate writing practice. Authors Guild correspondingly states that copyrighted books and poetry "serve as the foundation for AI systems." Smaller configurations emphasize human accountability, disclosure, and protected authorship, including Elsevier's position that authorial responsibilities "can only be performed by humans."

These distributions support a relational but asymmetrical account of co-creativity. Relational approaches explain why initiation, generation, evaluation, and mediation can be spread across human and computational actors (Lim et al., 2023; Gunkel, 2025), yet platform scholarship clarifies that distributed contribution does not entail distributed control (Burkhardt & Rieder, 2024). Dominance of the complete production chain also aligns with research distinguishing active co-creation from passive editing (McGuire et al., 2024; Shi et al., 2023). By contrast, infrastructural dependency shows that agency is partly constituted before prompting through training data, licensing, and platform architecture. This pattern complicates accounts centred solely on interaction: machine co-authorship emerges through situated collaboration, but its possibilities, visibility, attribution, and recognition remain institutionally organized and politically unequal.

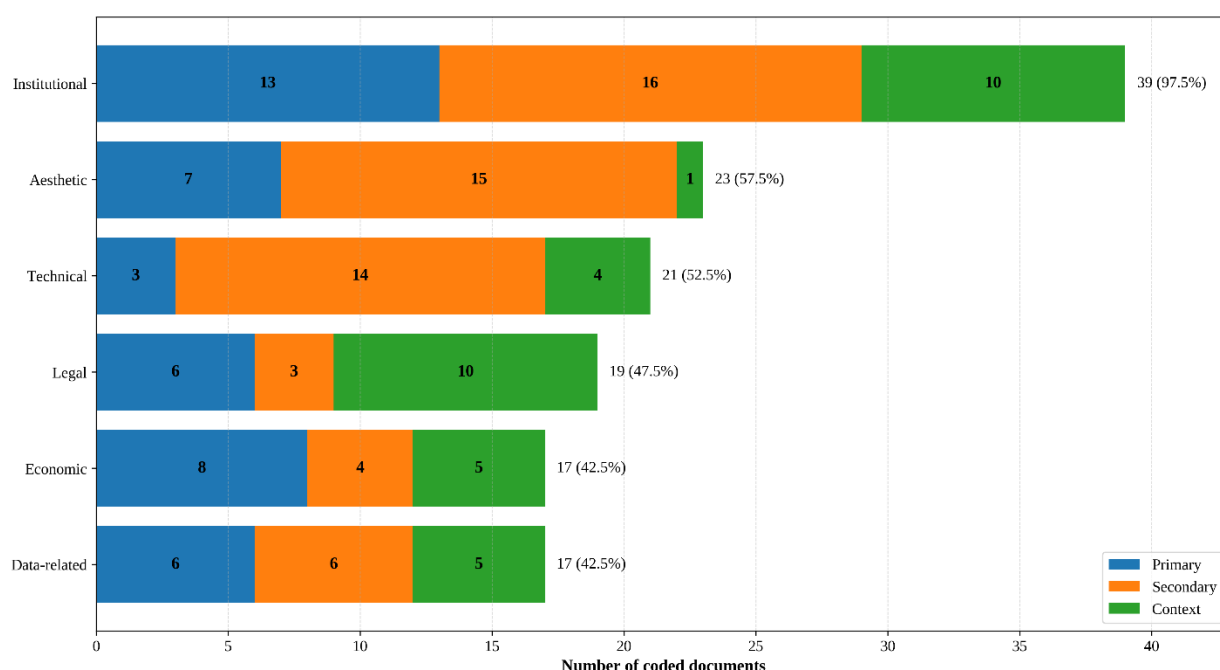
**Table 2.** Configurations of distributed creative agency in machine co-authorship

| Configuration family              | Subconfiguration                                                               | Indicator profile | Frequency | Percentage | Evidentiary variation | Representative textual evidence                                                                                       | Document codes                                                                         |
|-----------------------------------|--------------------------------------------------------------------------------|-------------------|-----------|------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Integrated co-production          | Fully articulated human-machine-platform chain                                 | HI-PD-MG-HR-PM    | 20        | 50.0%      | P = 5; S = 14; C = 1  | "Creative production is distributed, dialogical, and co-constituted" (Gunkel).                                        | PRI-001-002, PRI-006, PRI-012-013; SEC-001, SEC-003-005, SEC-007-015, SEC-017; CTX-009 |
| Infrastructural dependency        | Upstream model-platform dependency                                             | MG-PM             | 7         | 17.5%      | P = 2; S = 0; C = 5   | "Millions of copyrighted books, articles, essays, and poetry serve as the foundation for AI systems" (Authors Guild). | PRI-005, PRI-009; CTX-003-006, CTX-010                                                 |
| Governance-mediated human control | Human initiation, revision, and platform control                               | HI-MG-HR-PM       | 5         | 12.5%      | P = 2; S = 1; C = 2   | "Authorship implies responsibilities and tasks that can only be performed by humans" (Elsevier).                      | PRI-004, PRI-008; SEC-016; CTX-007-008                                                 |
|                                   | Human initiation without explicit prompting or revision                        | HI-MG-PM          | 3         | 7.5%       | P = 3; S = 0; C = 0   | "Machines cannot be authors" (Society of Authors).                                                                    | PRI-007, PRI-010-011                                                                   |
| Human-centred co-production       | Prompted generation with human revision but no explicit platform focus         | HI-PD-MG-HR       | 2         | 5.0%       | P = 0; S = 0; C = 2   | "Applicants have a duty to disclose the inclusion of AI-generated content" (U.S. Copyright Office).                   | CTX-001-002                                                                            |
| Conceptual human agency           | Human-directed constraint framework                                            | HI-HR             | 1         | 2.5%       | P = 0; S = 1; C = 0   | "Creativity is governed by constraints" (Tromp).                                                                      | SEC-002                                                                                |
| Human-centred co-production       | Human-reviewed machine assistance without explicit prompting or platform focus | HI-MG-HR          | 1         | 2.5%       | P = 0; S = 1; C = 0   | "Producers receive more credit when assisted by algorithms, compared with humans" (Jago & Carroll).                   | SEC-006                                                                                |
| Platform allocation               | Prompted platform generation without explicit human revision                   | HI-PD-MG-PM       | 1         | 2.5%       | P = 1; S = 0; C = 0   | "Customers retain ownership rights over any outputs they generate through their use of our services" (Anthropic).     | PRI-003                                                                                |



### Constraint regimes: enabling creativity while narrowing possibility

Constraint regimes organize machine co-authorship through overlapping technical, aesthetic, legal, economic, institutional, and data-related conditions. Because each of forty documents could receive more than one constraint code, frequencies represent document-level thematic presence rather than mutually exclusive cases. Institutional constraint was almost universal, appearing in thirty-nine documents, while aesthetic and technical constraints occurred in twenty-three and twenty-one records. Legal, economic, and data-related conditions remained substantial, although their distribution differed across evidentiary strata. Primary records concentrated on labor, contracts, market access, and platform rules; secondary scholarship foregrounded model affordances, authenticity, and creative search; contextual materials emphasized copyright, licensing, and training transparency. This structure makes it possible to compare constraint intensity without collapsing distinct institutional functions into a single measure.



**Figure 2.** Constraint regimes across evidentiary strata

Institutional rules formed the dominant pattern, accounting for 97.5 percent of documents and spanning all thirteen primary, sixteen secondary, and ten contextual records. Their practical force appears in requirements such as Amazon KDP's statement, "We require you to inform us of AI-generated content," and Elsevier's position that "AI tools cannot be credited or cited as an author." Aesthetic constraints followed at 57.5 percent, particularly around voice, originality, and authenticity; one study concluded that co-created art appeared "more novel" but lacked "creative authenticity." Technical constraints reached 52.5 percent, whereas legal constraints were especially salient in contextual sources. Economic and data-related constraints each appeared in seventeen documents, frequently connecting compensation, licensing, provenance, market access, and training transparency.

These patterns indicate that constraint is constitutive of machine co-authorship rather than external to it. Tromp's (2022) integrated model explains why restrictions may focus creative search while simultaneously narrowing available possibilities. Technical and aesthetic conditions often operated ambivalently, supporting ideation yet risking stylistic convergence, overreliance, or diminished authenticity (Garcia, 2024; Huang, 2025; Zhang et al., 2025). Legal and institutional constraints were more frequently limiting because they establish thresholds for copyrightability, disclosure, and accountable human contribution (Fritz, 2025; Lund & Naheem, 2023). Economic and data constraints further reveal that creativity depends on access to training corpora, licensing arrangements, and platform infrastructure (Burkhardt & Rieder, 2024; Benbya et al., 2024). Constraint therefore distributes opportunity unevenly while defining legitimate collaboration.



**Table 3.** Distribution, function, and salience of constraint regimes in machine co-authorship

| Constraint regime | Operational subcategories                                                                                                     | Coded indicator                                                                                           | Frequency | Percentage | Evidentiary distribution | Functional distribution | Central salience | Representative textual evidence                                                                                        | Representative document codes                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------|------------|--------------------------|-------------------------|------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Institutional     | Platform classification; publisher policy; professional guidance; collective bargaining; certification; regulatory obligation | Organizational rules materially structure permissible production, disclosure, circulation, or recognition | 39        | 97.5%      | P = 13; S = 16; C = 10   | E = 4; L = 14; B = 21   | 28/39 (71.8%)    | "We require you to inform us of AI-generated content" (Amazon KDP).                                                    | PRI-001, PRI-004, PRI-008, SEC-016, CTX-007–009 |
| Aesthetic         | Originality; authenticity; authorial voice; stylistic imitation; textual quality; collective diversity                        | Creative or evaluative norms delimit acceptable output and perceived legitimacy                           | 23        | 57.5%      | P = 7; S = 15; C = 1     | E = 3; L = 4; B = 16    | 13/23 (56.5%)    | "Co-created art is perceived as more novel, but lacks creative authenticity" (Messer).                                 | PRI-006, PRI-012–013, SEC-010, SEC-012, SEC-017 |
| Technical         | Probabilistic generation; controllability; interface affordances; non-uniqueness; system error; collaboration intensity       | Model architecture or interaction design shapes feasible creative actions                                 | 21        | 52.5%      | P = 3; S = 14; C = 4     | E = 3; L = 4; B = 14    | 13/21 (61.9%)    | "Prompting combines characteristics of natural language, computer code, and probabilistic query" (Burkhardt & Rieder). | PRI-002, PRI-012–013, SEC-005, SEC-007, SEC-015 |
| Legal             | Copyrightability; human-authorship threshold; licensing; contractual permission; disclosure; liability                        | Legal doctrine or contractual rules define protectable contribution and authorized machine use            | 19        | 47.5%      | P = 6; S = 3; C = 10     | E = 0; L = 13; B = 6    | 18/19 (94.7%)    | "Copyright protects original expression created by a human author" (U.S. Copyright Office).                            | PRI-005–010, SEC-014, SEC-016, CTX-001–010      |
| Economic          | Compensation;                                                                                                                 | Material incentives                                                                                       | 17        | 42.5%      | P = 8; S = 4; C          | E = 1; L = 8; B         | 14/17            | "The scheme                                                                                                            | PRI-003, PRI-005,                               |

|              |                                                                                                                              |                                                                                                   |    |       |                        |                         |                  |                                                                                                                                               |                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----|-------|------------------------|-------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|              | production cost;<br>market saturation;<br>livelihood risk;<br>bargaining power;<br>commercialization                         | or market structures<br>affect access,<br>reward, and creative<br>labor                           |    |       | = 5                    | = 8                     | (82.4%)          | helps identify<br>works written by<br>humans in a<br>market<br>increasingly<br>flooded by AI-<br>generated books”<br>(Society of<br>Authors). | PRI-007–011, SEC-<br>001, SEC-007,<br>CTX-005–006                      |
| Data-related | Training provenance;<br>corpus composition;<br>consent;<br>personalization data;<br>content summaries;<br>rights reservation | Access to or control<br>over data<br>conditions<br>generative capacity<br>and legitimate<br>reuse | 17 | 42.5% | P = 6; S = 6; C<br>= 5 | E = 1; L = 5; B<br>= 11 | 13/17<br>(76.5%) | “Providers must<br>make publicly<br>available a<br>sufficiently<br>detailed summary<br>of training<br>content”<br>(European Union).           | PRI-005–007, PRI-<br>009, SEC-007,<br>SEC-012, SEC-017,<br>CTX-003–006 |

### Politics of machine co-authorship: attribution, ownership, and platform power

Authorship governance emerged as a layered system in which creative contribution, institutional recognition, contractual ownership, and responsibility were coded separately across the same forty documents used in previous analyses. Seven overlapping indicators captured human-authorship requirements, disclosure obligations, output ownership, training consent and compensation, labor displacement, human accountability, and platform power. Because one document could activate several governance indicators, percentages represent thematic presence rather than mutually exclusive positions. Primary materials documented platform and professional rules, secondary sources examined attribution and audience judgment, and contextual records established legal or editorial thresholds. This structure preserves a consistent document-level unit while revealing whether machine participation is recognized as creative assistance, regulated as infrastructural dependence, or excluded from formal authorship status.

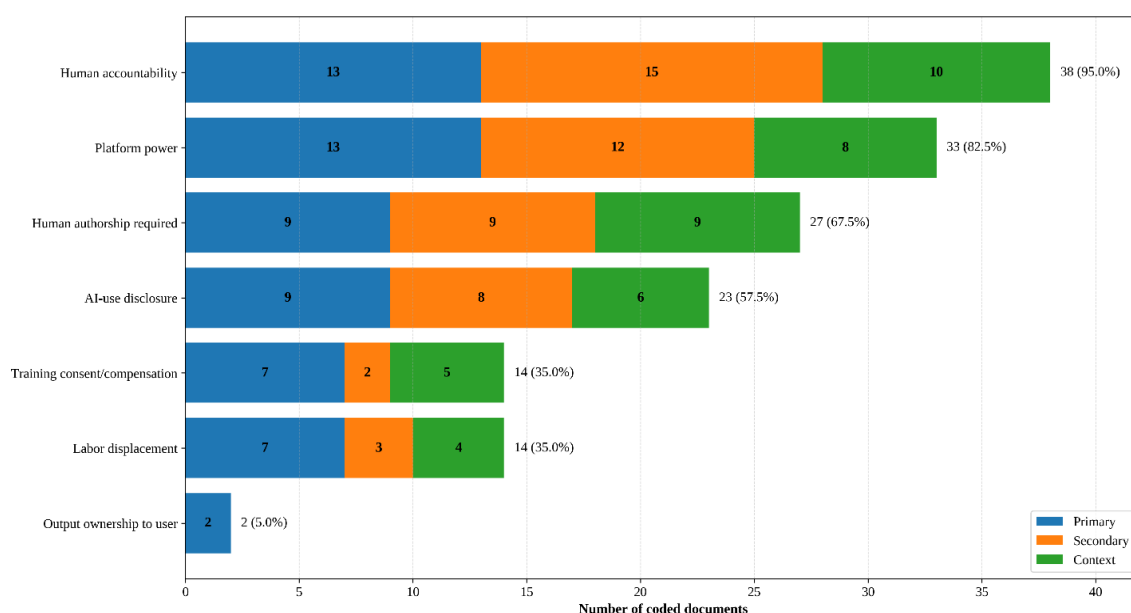


Figure 3. Authorship and governance indicators across evidentiary strata

Human accountability was the most prevalent indicator, appearing in thirty-eight documents, or 95.0 percent, followed by platform power in thirty-three records and explicit human-authorship requirements in twenty-seven. Elsevier states that “authorship implies responsibilities and tasks that can only be performed by humans,” while the Society of Authors declares that “machines cannot be authors.” Disclosure appeared in twenty-three documents, including OpenAI’s warning against representing co-produced content as wholly human or wholly machine generated. Training consent and compensation and labor displacement each occurred in fourteen records, particularly in guild and government materials. By contrast, output ownership assigned to users appeared only in two primary platform documents, showing that contractual ownership was considerably narrower than accountability, disclosure, or institutional control.

These distributions distinguish participation in production from eligibility for authorship. Legal scholarship locates protectable authorship in demonstrable human intellectual control, whereas publishing policies emphasize approval, verification, and answerability (Fritz, 2025; Lund & Naheem, 2023). Attribution research further shows that perceived credit does not necessarily correspond to actual assistance (Jago & Carroll, 2023). High platform-power frequency extends this problem beyond individual creativity: providers and publishers define model access, disclosure categories, marketplace visibility, and acceptable recognition (Burkhardt & Rieder, 2024; Benbya et al., 2024). Machine co-authorship therefore operates within asymmetrical governance. Systems may contribute text or ideas, yet humans retain formal responsibility while platforms preserve authority over infrastructural conditions, contractual allocation, and circulation. This arrangement makes co-authorship politically consequential rather than merely collaborative.

**Table 4.** Distribution of authorship and governance indicators across the documentary corpus

| Governance domain                 | Operational issue                                                                                                            | Frequency | Percentage | Evidentiary distribution | Dominant legitimacy position                   | Representative textual evidence                                                                                                 | Representative document codes                                                                                             |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------|------------|--------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Human accountability              | Human review, verification, approval, and responsibility for published or circulated outputs                                 | 38        | 95.0%      | P = 13; S = 15; C = 10   | Conditional and restrictive: 11 documents each | "Authorship implies responsibilities and tasks that can only be performed by humans" (Elsevier).                                | PRI-001–013; SEC-003–005, SEC-007–018; CTX-001–010                                                                        |
| Platform power                    | Provider, publisher, marketplace, or infrastructure control over access, visibility, classification, rights, and circulation | 33        | 82.5%      | P = 13; S = 12; C = 8    | Conditional: 10 documents                      | "We require you to inform us of AI-generated content" (Amazon KDP).                                                             | PRI-001–013; SEC-001, SEC-003–005, SEC-007–008, SEC-010–013, SEC-016–017; CTX-003–010                                     |
| Human-authorship requirement      | Explicit reservation of authorial status for human intellectual or expressive contribution                                   | 27        | 67.5%      | P = 9; S = 9; C = 9      | Restrictive: 11 documents                      | "Machines cannot be authors" (Society of Authors).                                                                              | PRI-001, PRI-005–011, PRI-013; SEC-003, SEC-006, SEC-009–010, SEC-012, SEC-014–017; CTX-001–003, CTX-005–010              |
| AI-use disclosure                 | Declaration, labeling, or acknowledgment of substantive AI participation                                                     | 23        | 57.5%      | P = 9; S = 8; C = 6      | Restrictive: 10 documents                      | "People should not represent API-generated content as being wholly generated by a human or wholly generated by an AI" (OpenAI). | PRI-001, PRI-004, PRI-006–008, PRI-010–013; SEC-001, SEC-003, SEC-010–013, SEC-016–017; CTX-001–002, CTX-004, CTX-007–009 |
| Training consent and compensation | Consent, licensing, opt-out rights, notice, remuneration, and bargaining over training                                       | 14        | 35.0%      | P = 7; S = 2; C = 5      | Restrictive: 6 documents                       | "Companies must give the Guild written notice if they license writers' work to train                                            | PRI-005–011; SEC-003, SEC-007; CTX-003–006, CTX-010                                                                       |

|                                    | uses                                                                               |    |       |                     |                                             |                                                                                                                                                                 |                                                                  |
|------------------------------------|------------------------------------------------------------------------------------|----|-------|---------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Labor displacement                 | Substitution, livelihood risk, devaluation of creative work, and market saturation | 14 | 35.0% | P = 7; S = 3; C = 4 | Restrictive: 6 documents                    | commercial GAI" (WGA West).<br>"The scheme helps identify works written by humans in a market increasingly flooded by AI-generated books" (Society of Authors). | PRI-005-011; SEC-001, SEC-007-008; CTX-003, CTX-005-006, CTX-010 |
| Output ownership assigned to users | Contractual allocation of generated outputs to customers or users                  | 2  | 5.0%  | P = 2; S = 0; C = 0 | Conditional and supportive: 1 document each | "You retain your ownership rights in Input and own the Output" (OpenAI).                                                                                        | PRI-002-003                                                      |

## DISCUSSION

Distributed creative agency matters because it relocates authorship from a single moment of textual production to a sequence of decisions distributed across initiation, prompting, generation, revision, and mediation. Functionally, this distribution can enlarge ideational range, accelerate iteration, and strengthen reflective judgment when humans remain active co-creators, consistent with McGuire et al. (2024), Shi et al. (2023), and Huang (2025). Yet it also produces dysfunction when technical contribution is mistaken for equivalent intention or when platform participation disappears behind a human byline. Gunkel's (2025) dialogical account supports distributed creativity, whereas legal and institutional scholarship resists extending authorship to systems unable to assume responsibility. This tension means machine co-authorship should not be evaluated through output origin alone. Its significance lies in how creative labor is partitioned, made visible, and converted into credit. Consequently, meaningful collaboration in practice requires stage-specific attribution rather than a binary distinction between wholly human and wholly machine production.

This pattern arises because generative writing is structurally organized by an asymmetric production chain. Humans formulate purposes and evaluate consequences, models generate probabilistic options, while platforms determine access, interface conditions, data infrastructures, and permissible uses. Relational theories correctly explain why creativity emerges through interaction (Lim et al., 2023), but they can understate how unequal control shapes those relations. Burkhardt and Rieder (2024) show that foundation models operate as platforms, making prompting dependent on proprietary architectures and computational resources. This helps explain why complete co-production chains were common in scholarship, while policy documents often emphasized upstream model and platform dependency. The association is structural rather than evidence of direct causation: documents foreground whichever actor they institutionally represent. Creative practitioners emphasize iterative exchange, regulators emphasize accountability, and platforms emphasize contractual allocation. Thus, distributed agency remains analytically useful only when accompanied by attention to asymmetrical ownership, infrastructural dependence, and differentiated capacities for decision-making.

Constraint regimes have a dual implication: they make machine-assisted creativity possible while simultaneously narrowing what counts as legitimate, original, or publishable. This ambivalence supports Tromp's (2022) argument that constraints can organize creative search rather than simply suppress it. Technical and aesthetic limits may focus experimentation, but they can also encourage convergence, weaken voice, or shift writers toward model-preferred formulations, echoing Garcia (2024), Messer (2024), and Huang (2025). Institutional rules can protect readers and creators through disclosure, verification, and contractual clarity, yet excessive restriction may reduce exploratory uses or privilege organizations with legal and technical capacity. Accordingly, dysfunction does not arise from constraint itself but from opaque, uneven, or inflexible application. This study therefore extends creativity-under-constraint scholarship by showing that machine co-authorship is governed through multiple overlapping regimes. Creative freedom is not absence of restriction; it is the capacity to navigate constraints whose purposes, beneficiaries, and consequences remain visible and contestable.

The predominance of institutional constraint reflects how AI-assisted creativity is embedded in organizations before becoming an individual artistic act. Publishers, platforms, professional associations, and regulators classify content, allocate responsibilities, and define acceptable disclosure. Legal constraints become salient because copyright systems require identifiable human contribution, as Fritz (2025) argues, while editorial policies exclude AI from authorship on accountability grounds, consistent with Lund and Naheem (2023). Economic and data constraints emerge from another structure: generative capacity depends on large corpora, licensing arrangements, and scalable infrastructures controlled by few actors. Benbya et al. (2024) and Burkhardt and Rieder (2024) likewise connect creative opportunity to organizational dependence and platform concentration. These relationships explain why enabling and limiting functions often coexist within one document. Rules authorizing publication also impose disclosure; training access expands capability while generating consent disputes. Constraint regimes therefore reflect institutional bargaining over who may create, under what conditions, and with whose resources.

Authorship governance has its strongest implication in separating creative contribution from institutional entitlement. Machines may contribute wording, variation, or structural possibilities, yet such

participation does not automatically yield authorship, ownership, or moral standing. High emphasis on human accountability indicates that legitimacy is anchored less in production quantity than in answerability for publication. This supports Fritz (2025) and Lund and Naheem (2023), while complicating posthuman accounts that dissolve authorship too readily into distributed process. Jago and Carroll (2023) further show that perceived credit can diverge from actual assistance, suggesting that disclosure alone cannot secure proportionate recognition. Functionally, human-centered accountability protects readers, publishers, and rights holders. Dysfunction appears when humans absorb liability while platforms retain control, or when training contributors remain invisible despite enabling model performance. Machine co-authorship therefore requires a multidimensional governance model distinguishing contribution, credit, contractual ownership, copyrightability, compensation, and responsibility instead of treating authorship as a single undifferentiated status.

This governance pattern is underpinned by institutional asymmetry among creators, users, model providers, publishers, and rights holders. Human accountability is widespread because legal and editorial systems require an actor capable of intention, verification, consent, and remedy. Platform power remains extensive because providers control models, contractual terms, access conditions, and classification systems, even when users receive output ownership. That disparity explains why ownership allocation appeared narrower than accountability or disclosure: contractual transfer does not resolve copyrightability, training provenance, or public legitimacy. Burkhardt and Rieder (2024) identify this concentration at infrastructural level, while Tsao and Nogues (2024) offer a more emancipatory account of AI-assisted writing. This study suggests both positions are partially compatible. AI can unsettle inherited authorial hierarchies, but emancipation depends on governance capable of redistributing recognition and bargaining power. Without such redistribution, collaboration may expand expressive opportunity while reproducing dependence on institutions that determine visibility, legitimacy, and economic value today.

## CONCLUSION

This study shows that machine co-authorship is best understood as distributed creative production governed by unequal infrastructures rather than as either autonomous machine creativity or neutral human tool use. Its central lesson is that prompting, generation, revision, attribution, and platform mediation form an integrated chain whose components carry different forms of agency, responsibility, and power. By combining distributed agency mapping, constraint-regime analysis, and authorship-governance positioning across one documentary corpus, this study renews debates on creativity by connecting aesthetic practice with legal, economic, institutional, and data conditions. Its contribution therefore lies in separating contribution, control, credit, ownership, and accountability more precisely.

This study remains limited by its purposive English-language documentary corpus, uneven regional representation, document-level coding, and reliance on available statements rather than direct observation of writing practices. Documentary evidence also reveals institutional positions more clearly than lived negotiation among authors, editors, readers, and platform workers. Future research should therefore incorporate multilingual and regionally balanced corpora, longitudinal policy tracking, interviews, ethnographic observation, and process-based analysis of prompts, drafts, revisions, and publication decisions. Comparative studies across literary genres and platform ecosystems could further test whether distributed agency and constraint operate differently under alternative legal regimes, economic conditions, and cultural traditions of authorship.

## ACKNOWLEDGMENTS

The authors thank the reviewers and editorial team for their constructive feedback on this manuscript.

## FUNDING INFORMATION

Authors state no funding involved.



## AUTHOR CONTRIBUTIONS STATEMENT

**Inero Valbuena Ancho:** conceptualization (lead), methodology, formal analysis, writing – original draft, writing – review and editing (lead); **Ahmad Dafa Asyaddad:** data curation, formal analysis, writing – original draft, writing – review and editing (supporting).

## CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

## AI USE DECLARATION

The authors used artificial intelligence tools to assist with the formatting and layout of this manuscript. AI was not used to generate the substantive content, conceptualization, data, analysis, or conclusions of the research, all of which remain the sole responsibility of the authors.

## INFORMED CONSENT

Not applicable – this study did not involve direct human participants. Data consisted solely of publicly accessible documents, platform policies, and governance materials.

## ETHICAL APPROVAL

This research did not involve human or animal subjects; it analyzed publicly available documentary records concerning machine co-authorship, and therefore no institutional review board approval was required. Where research does involve human subjects, the authors affirm that such research would be conducted in full compliance with all relevant national regulations and institutional policies, in accordance with the tenets of the Declaration of Helsinki, and would be approved by the authors' institutional review board or equivalent committee.

## DATA AVAILABILITY

The corpus/data analyzed in this study are available from the corresponding author upon reasonable request.

## REFERENCES

- Ahuja, T., Dey, H. S., & Dutt, S. (2025). Autonomy, authenticity, authorship and intention in computer generated art. *International Journal of Science and Research*. <https://doi.org/10.21275/sr25204123429>
- Ali, S., Ghose, A., Saurav, S., Deshmukh, S. N., Hart, R., Olewitz, C., & Japanese, A. (2024). Creativity and innovation in the age of artificial intelligence: A copyright dilemma. *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)*. <https://doi.org/10.22304/pjih.v11n2.a1>
- Amazon Kindle Direct Publishing. (n.d.). *Content guidelines: Artificial intelligence content*. Retrieved July 11, 2026, from <https://kdp.amazon.com/help/topic/G200672390>
- Anthropic. (2023, December 19). *Expanded legal protections and improvements to our API*. <https://www.anthropic.com/news/expanded-legal-protections-api-improvements>
- Authors Guild. (2023, July 18). *Thousands sign Authors Guild letter calling on AI industry leaders to protect writers*. <https://authorsguild.org/news/thousands-sign-authors-guild-letter-calling-on-ai-industry-leaders-to-protect-writers/>
- Authors Guild. (2024, February 29). *Authors Guild releases AI best practices for authors*. <https://authorsguild.org/news/authors-guild-releases-ai-best-practices-for-authors/>
- Benbya, H., Strich, F., & Tamm, T. (2024). Navigating generative artificial intelligence promises and perils for knowledge and creative work. *Journal of the Association for Information Systems*, 25, 13. <https://doi.org/10.17705/1jais.00861>
- Burkhardt, S., & Rieder, B. (2024). Foundation models are platform models: Prompting and the political economy of AI. *Big Data & Society*, 11. <https://doi.org/10.1177/20539517241247839>
- Elsevier. (n.d.). *Generative AI policies for journals*. Retrieved July 11, 2026, from <https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals>
- Elsevier. (n.d.). *The use of generative AI and AI-assisted technologies in writing for Elsevier*. Retrieved July 11, 2026, from <https://www.elsevier.com/about/policies-and-standards/the-use-of-generative-ai-and-ai-assisted-technologies-in-writing-for-elsevier>

- European Union. (2024). Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence. Official Journal of the European Union. <https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng>
- Fritz, J. (2025). Understanding authorship in artificial intelligence-assisted works. *Journal of Intellectual Property Law & Practice*. <https://doi.org/10.1093/jiplp/jpae119>
- Garcia, M. (2024). The paradox of artificial creativity: Challenges and opportunities of generative AI artistry. *Creativity Research Journal*, 37, 755–768. <https://doi.org/10.1080/10400419.2024.2354622>
- Grilli, L., & Pedota, M. (2024). Creativity and artificial intelligence: A multilevel perspective. *Creativity and Innovation Management*. <https://doi.org/10.1111/caim.12580>
- Gunkel, D. J. (2025). Prompted by me. Generated by ChatGPT. *Human-Machine Communication*. <https://doi.org/10.30658/hmc.10.2>
- Heimstad, S. B., Wien, A., & Gaustad, T. (2025). Machine heuristic in algorithm aversion: Perceived creativity and effort of output created by or with artificial intelligence. *Computers in Human Behavior: Artificial Humans*, 5, 100190. <https://doi.org/10.1016/j.chbah.2025.100190>
- Huang, H.-C. (2025). Unlocking creativity with artificial intelligence: Field and experimental evidence on the Goldilocks effect of human–AI collaboration. *Journal of Experimental Psychology: General*. <https://doi.org/10.1037/xge0001838>
- Hutson, J. (2025). Human–AI collaboration in writing: A multidimensional framework for creative and intellectual authorship. *International Journal of Changes in Education*. <https://doi.org/10.47852/bonviewijce52024908>
- Jago, A. S., & Carroll, G. R. (2023). Who made this? Algorithms and authorship credit. *Personality and Social Psychology Bulletin*, 50, 793–806. <https://doi.org/10.1177/01461672221149815>
- Kalhor, G., Ali, S., & Mashhadi, A. (2025). Measuring biases in AI-generated co-authorship networks. *EPJ Data Science*, 14. <https://doi.org/10.1140/epjds/s13688-025-00555-9>
- Komura, K., & Yamada, S. (2026). Deepening ideas versus exploring new ones: AI strategy effects in human–AI creative collaboration. *PLOS ONE*, 21, e0340449. <https://doi.org/10.1371/journal.pone.0340449>
- Lim, J., Leinonen, T., Lipponen, L., Lee, H., DeVita, J., & Murray, D. (2023). Artificial intelligence as relational artifacts in creative learning. *Digital Creativity*, 34, 192–210. <https://doi.org/10.1080/14626268.2023.2236595>
- Lund, B. D., & Naheem, K. T. (2023). Can ChatGPT be an author? A study of artificial intelligence authorship policies in top academic journals. *Learned Publishing*, 37. <https://doi.org/10.1002/leap.1582>
- McGuire, J., De Cremer, D., & Van De Cruys, T. (2024). Establishing the importance of co-creation and self-efficacy in creative collaboration with artificial intelligence. *Scientific Reports*, 14. <https://doi.org/10.1038/s41598-024-69423-2>
- Messer, U. (2024). Co-creating art with generative artificial intelligence: Implications for artworks and artists. *Computers in Human Behavior: Artificial Humans*, 2, 100056. <https://doi.org/10.1016/j.chbah.2024.100056>
- OpenAI. (2022, November 14). *Sharing & publication policy*. <https://openai.com/policies/sharing-publication-policy/>
- OpenAI. (2026, January 1). *Terms of use*. <https://openai.com/policies/row-terms-of-use/>
- Shi, Y., Gao, T., Jiao, X., & Cao, N. (2023). Understanding design collaboration between designers and artificial intelligence: A systematic literature review. *Proceedings of the ACM on Human-Computer Interaction*, 7, 1–35. <https://doi.org/10.1145/3610217>
- Society of Authors. (n.d.). *Artificial intelligence*. Retrieved July 11, 2026, from <https://societyofauthors.org/where-we-stand/artificial-intelligence/>
- Society of Authors. (2026, March 11). *Human Authored scheme launched as generative AI threatens authors' livelihoods*. <https://societyofauthors.org/2026/03/11/human-authored-scheme-launched-as-generative-ai-threatens-authors-livelihoods/>
- Subagiyo, D. T., & Wibisono, H. (2025). The urgency of artificial intelligence regulation from a joint authorship perspective on copyright infringement. *Indonesia Private Law Review*. <https://doi.org/10.25041/iplr.v5i2.3962>
- Tromp, C. (2022). Integrated constraints in creativity: Foundations for a unifying model. *Review of General Psychology*, 27, 41–61. <https://doi.org/10.1177/10892680211060027>
- Tsao, J., & Nogues, C. (2024). Beyond the author: Artificial intelligence, creative writing and intellectual emancipation. *Poetics*. <https://doi.org/10.1016/j.poetic.2024.101865>
- U.S. Copyright Office. (2023, March 16). *Copyright registration guidance: Works containing material generated by artificial intelligence*. [https://www.copyright.gov/ai/ai\\_policy\\_guidance.pdf](https://www.copyright.gov/ai/ai_policy_guidance.pdf)
- U.S. Copyright Office. (2025, January 29). *Copyright and artificial intelligence, Part 2: Copyrightability*. <https://www.copyright.gov/newsnet/2025/1060.html>
- Vinchon, F., Lubart, T., Bartolotta, S., Gironnay, V., Botella, M., Bourgeois-Bougrine, S., Burkhardt, J.-M., Bonnardel, N., Corazza, G., Glăveanu, V., Hanson, M. H., Ivcevic, Z., Karwowski, M., Kaufman, J., Okada, T., Reiter-Palmon, R., & Gaggioli, A. (2023). Artificial intelligence and creativity: A manifesto for collaboration. *The Journal of Creative Behavior*. <https://doi.org/10.1002/jocb.597>

- Writers Guild of America West. (2026, April 24). 2026 MBA contract changes FAQ. <https://www.wga.org/contracts/contracts/mba/2026-mba-contract-changes-faq>
- Xiao, Y. (2022). Decoding authorship: Is there really no place for an algorithmic author under copyright law? *International Review of Intellectual Property and Competition Law*, 54, 5–25. <https://doi.org/10.1007/s40319-022-01269-5>
- Zhang, C., Shao, Y., Yuan, Y., & Shen, W. (2025). Artificial intelligence reshapes creativity: A multidimensional evaluation. *PsyCh Journal*, 14, 831–840. <https://doi.org/10.1002/pchj.70042>