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AUTHORSHIP WITHOUT AUTHORS? RETHINKING COPYRIGHT OWNERSHIP IN GENERATIVE AI ACROSS JURISDICTIONAL BOUNDARIES

AUTORIA SEM AUTORES? REPENSANDO A TITULARIDADE DO DIREITO AUTORAL NA IA GENERATIVA ATRAVÉS DE FRONTEIRAS JURISDICIONAIS

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Abstract
This article argues that the most acute copyright problem posed by generative AI is not simply whether "AI outputs" can be protected, but how ownership rules behave once authorship is destabilised across borders. Current doctrine assumes a human author whose creative agency anchors originality, moral rights, initial ownership, and term. Generative AI disrupts that architecture by separating training-stage reproduction of protected works from output-stage production of new expressive material whose "author" is often indeterminate, distributed, or strategically framed by platform contracts. Comparative analysis indicates a converging human-centred baseline in the United States and European Union, while the United Kingdom retains a statutory attribution rule for computer-generated works that sits uneasily with modern originality doctrine and international harmonisation pressures. This article argues that extending full copyright to autonomously generated outputs would amplify legal fragmentation and power asymmetries, creating extraction-friendly defaults where proprietary model operators or sophisticated users capture value from global cultural inputs. The article proposes a doctrinal solution built around a trans-jurisdictional "human creative control" threshold, complemented by provenance-oriented disclosure and licensing mechanisms focused on training.

Keywords: Authorship. Comparative Copyright. Generative AI. Jurisdiction. Text and Data Mining.

Resumo
Este artigo sustenta que o problema mais agudo do direito autoral diante da IA generativa não é apenas saber se "saídas de IA" são protegíveis, mas compreender como regras de titularidade operam quando a autoria é desestabilizada além das fronteiras. A doutrina presume um autor humano cuja agência criativa fundamenta originalidade, direitos morais, titularidade originária e prazo. A IA generativa rompe essa arquitetura ao separar a reprodução, em fase de treinamento, de obras protegidas; e a produção, em fase de saída, de novo material expressivo cuja "autoria" frequentemente é indeterminada, distribuída ou moldada estrategicamente por contratos de plataforma. A análise comparada identifica um padrão antropocêntrico convergente nos Estados Unidos e na União Europeia, enquanto o Reino Unido conserva uma regra estatutária de atribuição para obras geradas por computador que tensiona a noção moderna de originalidade e as pressões de harmonização. O artigo defende que ampliar proteção plena a saídas geradas autonomamente agravaria a fragmentação e assimetrias de poder, consolidando padrões extrativistas sobre insumos culturais globais. Propõe-se um critério de "controle criativo humano" e, para o treinamento, mecanismos de transparência, rastreabilidade e licenciamento.

Palavras-chave: *Autoria. Direito Autoral Comparado. Inteligência Artificial Generativa. Jurisdição. Mineração de Textos e Dados.*

1 INTRODUCTION

Generative AI has made a familiar copyright question newly unstable, as when creative production is mediated by a system that "learns" from vast corpora of existing expression, who (if anyone) counts as the author of what emerges, and who should own it? The difficulty is not confined to a single doctrinal component. Authorship, originality, first ownership, duration, infringement, and remedies are interlocking elements; weaken the authorial anchor, and the whole structure becomes harder to justify and harder to administer.

This article argues that current debates too often collapse three distinct issues into one. The first is the legality of training on copyrighted works, secondly the copyrightability of outputs produced with or by generative systems and finally the allocation of ownership and enforcement power in cross-border markets. The third issue is the least theorised and, in practice, the most consequential. Ownership is the point where abstract standards become distributive outcomes, as who gets to exclude, license, litigate, and extract rents over works that may be cheap to generate but costly to challenge.

Methodologically, the article adopts a doctrinal and comparative approach, focusing on the United States, the United Kingdom, and the European Union as principal "rule-makers" in global copyright governance, while also treating private international law as a neglected but decisive layer. The aim is both critical and constructive: to show why extending full copyright to autonomously generated outputs is conceptually incoherent and politically risky, and to propose a workable, harmonisation-friendly solution that protects human creativity without authorising new monopolies over machine-made abundance.

2 CONCEPTUAL FOUNDATIONS OF AUTHORSHIP

Copyright's concept of authorship is not merely descriptive, it performs justificatory work. It explains why exclusive rights should arise automatically, why the initial owner is ordinarily the author, why moral rights (where recognised) attach to personal creation, and why the term is often measured by a human life. These features

presuppose a creator whose intellectual agency is legible to law, even if mediated by tools (Ginsburg & Budiardjo, 2019).

The modern originality threshold, however low also carries an implicit theory of authorship. In the case of Infopaq International A/S v Danske Dagblades Forening (2009), the European Union Court of Justice framed originality as the "author's own intellectual creation" and tied that to creative choices and personal expression. The foundational move in Infopaq (2009) was to treat even small textual extracts as protected if they express the author's intellectual creation, pushing originality toward a human-choice paradigm rather than mere labour or investment. This approach was elaborated in the case of Eva-Maria Painer v Standard VerlagsGmbH (2011), which emphasised creative choices in photography (pose, framing, lighting, angle) as the locus of originality, and later in the case Cofemel v G-Star Raw (2019), which resisted subjectivised aesthetic tests but reaffirmed that copyright protection depends on the presence of original intellectual creation rather than design-category labels.

In the United States, the doctrinal vocabulary differs, but the authorial premise is comparable. Copyright subsists in "original works of authorship" fixed in a tangible medium (17 U.S.C. § 102, 2021). Administrative practice and case law converge on a requirement of human authorship, as where the "author" is not human, there is no rights-holder to receive the statutory bundle, and the constitutional and statutory structure becomes strained. The U.S. approach is especially visible because registration functions as an institutional gatekeeper. The U.S. Copyright Office's Compendium and policy guidance articulate a consistent baseline, where works produced by animals or by machines without human creative input are not registrable as copyrightable authorship (U.S. Copyright Office, 2021, § 313.2; U.S. Copyright Office, 2023).

Against that background, "AI authorship" is better understood as an attribution problem than as a metaphysical one. As Ginsburg & Budiardjo (2019) argue, the central question is whether a human author can be identified in a way that preserves copyright's normative commitments; otherwise, the output is "authorless," and treating it as fully copyrighted risks creating rights without authors.

This article builds on that insight but insists on a further step that once authorship is destabilised, ownership defaults become a site of strategic behaviour, not neutral allocation. Generative AI makes it cheap to flood markets with content. Granting

exclusive rights to output absent meaningful human authorship would not merely "recognise creativity"; it would redistribute enforcement power to those best positioned to generate, register (where possible), and litigate at scale.

3 GENERATIVE AI AND THE COLLAPSE OF HUMAN AUTHORSHIP

The legal difficulty posed by generative AI is not that it produces outputs "without any human involvement." In most real-world uses, humans provide prompts, constraints, selections, and post-edits. The problem is that the link between human contribution and particular expressive elements is often empirically thin and legally contestable. The more the system fills in the expressive detail, the more the human role resembles commissioning or direction rather than authorship in the classic sense.

Two institutional responses illustrate how copyright systems are trying to draw the line without rewriting the statute. First, the U.S. Copyright Office's guidance (2023) on works containing AI-generated material requires disclosure of AI-generated portions and focuses protection on the human-authored components rather than on the machine-generated material itself. Second, the Office's Part 2 Report on Copyrightability argues that prompts alone will generally not supply sufficient human control over expressive elements to make the user the author of the output, while recognising that AI can be used as a tool within a broader human creative process (U.S. Copyright Office, 2025).

Within the European Union, debates tracking CJEU case law suggests a similar human-centric logic, even though the EU lacks a single "human authorship" statutory clause. Hugenholtz and Quintais (2021) argue that EU doctrine can accommodate AI-assisted outputs where a human exercises creative freedom and choices. However, outputs that are wholly machine-generated where human input does not determine expressive form are unlikely to qualify as "works" under the EU acquis as developed by the CJEU.

The United Kingdom is structurally different because it retains an explicit statutory rule for "computer-generated" works: where a literary, dramatic, musical, or artistic work is computer-generated, "the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken" (Copyright, Designs and Patents Act 1988, c. 48, § 9(3)). The apparent clarity is deceptive. Recent

analysis argues that this rule sits uneasily with modern originality doctrine, particularly after the UK's alignment with the "author's own intellectual creation" standard, and may create incentives to under-disclose AI involvement because computer-generated works receive a shorter term of protection and do not attract the full moral-rights framework (Atilla, 2024; UK Intellectual Property Office, 2021).

As a comparative matter, then, generative AI does not merely introduce "new facts" for old doctrine; it disrupts the doctrinal chain that links originality to authorship, authorship to ownership, and ownership to enforcement. The more copyright law tries to preserve that chain by stretching "authorship" to cover minimal human involvement, the more it risks hollowing out the normative basis of exclusive rights.

3.1 Training data and output in copyright doctrine

A central analytical mistake in AI copyright debates is to treat "training" and "output" as a single event. They are better conceptualised as two different legal sites: input-stage reproduction and output-stage expression.

At the input stage, training typically requires copying protected works into memory, storage, or datasets, raising reproduction-right questions. The legal justifications offered by developers vary by jurisdiction: fair use in the United States, text-and-data-mining exceptions in the EU, and narrower statutory exceptions in the UK. The key point for ownership analysis is that training disputes are usually about use of third-party works, not about ownership of outputs. Nonetheless, training litigation materially shapes the incentives and contractual architectures around output ownership, because it determines the cost of building models and the bargaining power of rightsholders versus developers.

Recent U.S. litigation indicates that federal courts are beginning to draw lines around AI training, although the picture remains uneven. In Bartz v. Anthropic PBC, Judge Alsup held that Anthropic's use of lawfully acquired books to train its large language models was fair use, while leaving claims based on pirated copies used to build Anthropic's central library for trial (Bartz v. Anthropic PBC, 2025). In Kadrey v. Meta Platforms, Inc., Judge Chhabria granted summary judgment for Meta on fair use on the record before him, while stressing that stronger evidence of market dilution or market harm could lead to a different result in other cases (Kadrey v. Meta Platforms, Inc., 2025).

These decisions matter here not because they resolve output ownership, but because they shape which actors can afford to train models, under what legal risk, and with what downstream consequences for power in output markets.

In the European Union, the legal architecture for AI training is shaped by the Digital Single Market Directive's text-and-data-mining rules. Article 3 creates a mandatory exception for reproductions and extractions made by research organisations and cultural heritage institutions for the purposes of scientific research where they have lawful access to the relevant works or subject matter. Article 4 creates a broader exception for text and data mining of lawfully accessible works, but only where rightholders have not expressly reserved their rights, including by machine-readable means for content made publicly available online (Directive (EU) 2019/790, 2019, arts. 3(1), 4(1), 4(3)). These rules are now linked to the European Union's market-access regime for general-purpose AI models. Under the AI Act, providers of general-purpose AI models must put in place a policy to comply with Union copyright law, specifically including compliance with reservations of rights under Article 4(3) of the DSM Directive, and must make publicly available a sufficiently detailed summary of the content used for training (Regulation (EU) 2024/1689, 2024, art. 53(1)(c)–(d)). Read together, these instruments suggest a regulatory strategy that uses transparency and compliance documentation as practical levers for enforcing copyright norms that remain territorially grounded but economically global.

In the United Kingdom, official policy materials acknowledge that AI training commonly involves making copies of copyright-protected material and that some developers may conduct training activities outside UK territory, allowing them to argue that those activities fall beyond UK jurisdiction. The same materials emphasise that divergent national approaches, together with ongoing litigation, create continuing cross-border uncertainty for copyright and AI training (Intellectual Property Office, 2022; Intellectual Property Office, Department for Science, Innovation and Technology, & Department for Culture, Media and Sport, 2024).

At the output stage, the legal questions change. An AI-generated output may be uncopyrightable because it lacks sufficient human authorship; it may be protected only with respect to the human-authored components of a hybrid work; and it may still infringe pre-existing copyright if it reproduces protectable expression from an earlier work. The

distinction matters. An output may be unprotected for want of human authorship yet still be infringing, while a non-infringing output may also remain uncopyrightable. Conflating these categories obscures the real issue in debates about "ownership" of AI output, because ownership becomes meaningful only if copyright subsists in the first place (Rosati, 2025; U.S. Copyright Office, 2025).

The UK High Court's decision in Getty Images (US), Inc. v. Stability AI Ltd (2025) is illustrative of the distinction between training-stage copying and downstream technical artefacts such as model weights. The court rejected the argument that model weights in their final form were themselves "infringing copies" merely because training had involved exposure to infringing copies. Instead, the court held that the final model did not store or reproduce the copyright works, and that the concept of an "infringing copy" presupposes that the relevant article must, at some point, have contained a copy (Getty Images (US), Inc. v. Stability AI Ltd, 2025). Whatever one's view of that conclusion, its importance here is structural: it shows how courts may resist recharacterising technical artefacts as copies in order to preserve doctrinal coherence, even while recognising that acts of copying may occur during training.

4 COMPARATIVE APPROACHES ACROSS JURISDICTIONS

Comparative analysis is too often reduced to a scorecard. The more important question is not whether each system is simply permissive or restrictive, but where each locates the legally relevant human contribution in AI-mediated production.

4.1 United States approach

In the United States, the clearest doctrinal signal is the consolidation of a human-authorship baseline through administrative practice and judicial review. Stephen Thaler sought registration for A Recent Entrance to Paradise, identifying the "Creativity Machine" as the sole author, while Shira Perlmutter was named in the ensuing litigation in her official capacity as Register of Copyrights and Director of the U.S. Copyright Office. The Copyright Office refused registration, and the Review Board affirmed that refusal on the ground that a work generated autonomously by artificial intelligence

without human creative contribution is not eligible for copyright registration. The D.C. Circuit then affirmed that the Copyright Act requires human authorship as a matter of statutory law. The Supreme Court denied certiorari on March 2, 2026, leaving the D.C. Circuit's decision in place (Thaler v. Perlmutter, 2025; U.S. Copyright Office Review Board, 2022; Supreme Court of the United States, 2026).

The deeper point is doctrinal rather than merely procedural. U.S. copyright law is capable of assigning ownership to someone other than the person who physically created the work, most notably through the work-made-for-hire doctrine. Yet that mechanism presupposes the existence of a copyrightable work of authorship. Section 201(b) does not create authorship out of nothing; it reallocates authorship for statutory purposes once a protectable work already exists. Thaler exposes the limit of ownership-by-attribution strategies: where the claimed output lacks human authorship, ownership rules cannot be invoked to conjure copyright into being. Put differently, attribution follows copyrightability; it does not generate it (17 U.S.C. §§ 102(a), 201(b), 2025; Thaler v. Perlmutter, 2025).

The emerging U.S. position is not that AI-assisted works are categorically excluded from copyright, but that copyright attaches only to the human-authored aspects of such works. The Copyright Office's 2023 guidance and its Part 2 Report give that position practical effect by requiring applicants to disclose AI-generated content and by directing attention to human creative arrangement, modification, and other expressive contributions rather than to the machine-generated material itself. The consequence is distributional as well as doctrinal: creators able to document sustained human control are better positioned to secure protection, whereas purely prompt-driven outputs are unlikely to qualify on their own (U.S. Copyright Office, 2023, 2025).

4.2 United Kingdom approach

The United Kingdom is often portrayed as relatively "AI-friendly" because it retains a statutory doctrine of computer-generated works in the Copyright, Designs and Patents Act 1988. Section 9(3) provides that, for a computer-generated literary, dramatic, musical, or artistic work, "the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken" (Copyright, Designs

and Patents Act 1988, c. 48, § 9(3)). Yet that provision sits within a wider copyright framework that still treats originality in human terms. The UK Intellectual Property Office has acknowledged the resulting tension: originality is generally understood through the "author's own intellectual creation" standard, which depends on free and creative choices and the author's "personal touch," whereas section 9(3) applies precisely where there is no human author. In the absence of case law directly resolving that tension, uncertainty remains as to how an "original" but wholly machine-generated work would be conceptualised in UK law (Intellectual Property Office, 2022).

Authority remains thin in the United Kingdom because section 9(3) has not been squarely tested against contemporary generative AI outputs. The nearest case law comes from adjacent fields such as software and games rather than autonomous generation. Thus, although Nova Productions Ltd v Mazooma Games Ltd (2007) is frequently invoked in debates about computer-generated works, it does not provide a clean rule for AI authorship. Its value lies instead in showing judicial reluctance to attribute authorship to player input and in preserving the distinction between ideas, rules, and copyrightable expression in interactive environments (Nova Productions Ltd v Mazooma Games Ltd, 2007; Intellectual Property Office, 2022).

Recent analysis suggests that section 9(3) should be narrowed and refined rather than treated as a ready-made solution for generative AI (Ehirim *et al*., 2025). Atilla (2024) argues that users should benefit from the provision only where their instructions themselves meet an originality threshold; otherwise, section 9(3) risks conferring authorship on trivial inputs. On this view, the provision can be retained only by reintroducing the very element that justifies copyright protection in the first place: human creativity. The United Kingdom is therefore best understood as structurally ambivalent. It possesses a statutory allocation mechanism that may support rights in some AI-related outputs, but both policy materials and recent scholarship increasingly recognise the doctrinal uncertainty and incentive problems generated by that mechanism (Atilla, 2024; Intellectual Property Office, 2022).

4.3 European Union approach

The EU copyright acquis does not contain a provision equivalent to section 9(3). Rather than allocating authorship through a special rule for computer-generated works, it relies on the CJEU's harmonised conception of the protected "work," under which originality depends on whether the subject matter is the "author's own intellectual creation." This is more than a threshold test. It expresses a theory of copyright grounded in human creative freedom: protection is justified because the work embodies free and creative choices that bear the author's personal imprint (Infopaq International A/S v. Danske Dagblades Forening, 2009; Painer v. Standard Verlags GmbH, 2011; Hugenholtz & Quintais, 2021).

The most persuasive doctrinal reading is that EU copyright protects AI-assisted outputs only where human creative freedom shapes the final expressive form. This is the thrust of Hugenholtz and Quintais's (2021) four-step test for AI-assisted output, under which existing EU rules are generally suitable and sufficiently flexible for AI-assisted works, but not for outputs lacking meaningful human creative contribution. On that view, autonomous AI outputs are likely to fall outside copyright not because EU law contains an express "human authorship" clause, but because the concepts of "work" and "originality" in the EU acquis are structurally human-centred.

At the same time, the European Union is becoming a key site of regulatory pressure on AI training practices. The AI Act requires providers of general-purpose AI models placed on the Union market to adopt a policy for compliance with Union copyright law and, in particular, to identify and comply with reservations of rights expressed under Article 4(3) of the DSM Directive; it also requires them to make publicly available a sufficiently detailed summary of the content used for training (Regulation (EU) 2024/1689, 2024, art. 53(1)(c)–(d)). In this way, the Act links market access for general-purpose AI models to the DSM Directive's opt-out mechanism for text and data mining (Directive (EU) 2019/790, 2019, art. 4(3)). The result is a regulatory lever capable of affecting global model providers, even though copyright itself remains territorially grounded.

The European Union thus adopts a structurally bifurcated approach which is relatively restrictive copyrightability at the output stage, but increasingly robust

compliance and transparency obligations at the training stage. That combination is significant. It means that even where copyright protection will not attach to autonomous AI outputs, providers of general-purpose AI models may still face substantial copyright-related compliance burdens if they wish to access the EU market. The result is not the territorial displacement of copyright law, but the use of market regulation to intensify the extraterritorial consequences of territorially grounded copyright norms.

5 JURISDICTIONAL CONFLICTS AND PATH TO REFORM

Ownership debates become especially acute across borders because copyright remains territorially structured, while generative-AI development, deployment, and markets are transnational. The deepest conflicts are therefore not only about authorship or originality in the abstract; they are also private-international-law questions about forum, applicable law, and the territorial reach of copyright obligations, recast in the language of ownership (Van Eechoud, 2024).

First, training may occur in one jurisdiction, models may be deployed in another, and outputs may be generated and disseminated across many markets. Recent UK government analysis expressly recognises that leading AI developers may choose to train in jurisdictions with clearer or more permissive copyright rules and notes that, because copyright law applies where copying takes place, training conducted abroad may fall outside UK copyright obligations. The same materials stress that this uncertainty affects investment, competitive conditions, and the relative position of firms that cannot relocate training overseas. Copyright standards therefore do more than regulate domestic markets; they also shape the geography of AI development and the bargaining power of different market actors (Intellectual Property Office, Department for Science, Innovation and Technology, & Department for Culture, Media and Sport, 2024).

Second, the private-international-law treatment of copyright infringement reinforces territorial fragmentation. Article 8(1) of the Rome II Regulation adopts the lex loci protectionis rule, directing courts to apply the law of the country for which copyright protection is claimed (Regulation (EC) No 864/2007, 2007, art. 8(1)). In practice, that means a single cross-border dissemination can trigger the concurrent relevance of multiple national copyright laws, while the legal assessment of training-related copying

may vary depending on where the copying occurred and for which markets protection is invoked. What appears to be a unitary AI dispute is therefore often a bundle of territorially differentiated copyright claims (van Eechoud, 2024).

Third, the AI Act introduces a market-access mechanism with quasi-extraterritorial effects for general-purpose AI models. Providers placing such models on the Union market must maintain a copyright-compliance policy and publish a sufficiently detailed training-content summary, with the copyright obligation expressly tied to the DSM Directive's reservation-of-rights mechanism for text and data mining (Directive (EU) 2019/790, 2019, art. 4(3); Regulation (EU) 2024/1689, 2024, art. 53(1)(c)–(d)). Recital 106 makes clear that these duties apply irrespective of where the copyright-relevant training acts occurred, in order to prevent providers from securing a competitive advantage in the Union market through lower copyright standards outside the Union. The result is not full harmonisation of copyright law, but a form of regulatory pressure that may shape the conduct of global model providers seeking EU market access (Regulation (EU) 2024/1689, 2024, recital 106).

Against this background, "who owns AI-generated content" is the wrong question if posed as though it admits of a universal answer. Ownership is derivative, not foundational: it becomes meaningful only if the output first qualifies as a protected work under the law of the relevant jurisdiction, and that inquiry depends on the place accorded to human creative control within that system's concepts of originality and authorship (Hugenholtz & Quintais, 2021; U.S. Copyright Office, 2025; Atilla, 2024). On that footing, this article submits that the most unstable and normatively troubling path would be to recognise broad exclusive rights in outputs lacking meaningful human creative control. Because generative production is highly scalable, such rights would concentrate economic power rapidly; because enforcement resources are uneven, they would also reproduce political and market asymmetries. Cross-border effects would be equally problematic: systems that retain human-centred thresholds would refuse protection, while systems willing to allocate rights on the basis of organisational arrangement would create claims of uncertain portability. The better course is to decouple output governance from training governance and to regulate each on its own terms.

5.1 Output governance: a human creative control threshold

A trans-jurisdictionally usable solution is to articulate and converge around a "human creative A workable trans-jurisdictional solution is not to invent a new category of machine authorship, but to converge around a threshold of human creative control. The emerging U.S. position already points in that direction: prompts alone do not ordinarily suffice, but copyright may subsist where a human author exercises creative judgment through arrangement, selection, modification, or other expressive shaping of the final work (U.S. Copyright Office, 2025). EU doctrine reaches a functionally similar result through the language of originality rather than authorship, by asking whether free and creative human choices are expressed in the output (Hugenholtz & Quintais, 2021). The UK can retain section 9(3) only if it is read in the same normative light. As Atilla argues, attribution to a user or arranger should be conditioned on the originality of the human contribution; otherwise, the provision risks turning into a bare allocation rule for machine output rather than a copyright rule grounded in human creativity (Atilla, 2024).

Operationally, the threshold should be cast as a contextual inquiry, not a checklist. The decisive issue is whether a human author determined sufficient expressive elements of the final work in a manner that can be articulated independently of the model's internal opacity. Evidence may include iterative prompting directed toward identifiable expressive aims, selection among outputs by reference to aesthetic criteria, creative arrangement of generated material, and substantial post-generation revision. Where that evidentiary basis is missing, the output should remain unprotected. Any broader rule would risk conferring exclusive rights over scalable machine output without the human creativity that copyright is meant to reward.

5.2 Ownership allocation

Ownership allocation should preserve human-first defaults and resist developer ownership by implication. Where the threshold of human creative control is met, first ownership should follow ordinary copyright principles: the human author owns, subject to employment, work-made-for-hire, commissioning, and contract. The contrary temptation should be resisted as a matter of principle and policy. Doing so would risk

deepening concentration in already highly unequal AI markets by allowing the same actors to control both the infrastructure of generation and the proprietary rights in downstream outputs. The U.S. position in Thaler v. Perlmutter (2025) underscores the doctrinal limit of any such move. Section 201(b) of the Copyright Act (2025) does not manufacture authorship where none exists; it reallocates rights only once there is a copyrightable work of authorship in the first place. Put differently, work-made-for-hire rules presuppose copyrightability; they do not create it (House of Lords Communications and Digital Committee, 2024).

5.3 Training governance: transparency plus licensing, not output monopolies

Training governance should centre on transparency and licensing, not on new output monopolies. The legitimacy crisis in generative-AI copyright is driven primarily by training practices that use protected works without consent, remuneration, or adequate disclosure. In the European Union, this has already produced a regulatory response at model level: providers of general-purpose AI models placed on the Union market must adopt a copyright-compliance policy, specifically including compliance with the DSM Directive's text-and-data-mining opt-out mechanism, and must publish a sufficiently detailed summary of the content used for training (Directive (EU) 2019/790, 2019, art. 4(3); Regulation (EU) 2024/1689, 2024, art. 53(1)(c)–(d), recital 106). In the United Kingdom, official policy materials likewise recognise both the international variance of training rules and the competitive implications of market-access regulation in other jurisdictions, while continuing to explore domestic policy options for copyright and AI (Intellectual Property Office, Department for Science, Innovation and Technology, & Department for Culture, Media and Sport, 2024). In the United States, by contrast, training legality remains contested and is being shaped incrementally through litigation: in Bartz v. Anthropic PBC (2025), the court treated training on lawfully acquired books as fair use while leaving piracy-based copying for trial, whereas in Kadrey v. Meta Platforms, Inc. (2025) the court granted summary judgment for Meta on the record before it but emphasised that stronger evidence of market harm could alter the analysis in future cases.

The policy implication is straightforward. If the core problem is uncompensated extraction at the training stage, creating new exclusive rights in outputs is a poorly targeted remedy. It benefits whoever controls generation, not those whose works were copied, and it risks saturating markets with enforceable rights over content that is cheap to produce at scale. As Lemley (2024) argues, generative AI places pressure on foundational copyright doctrines and therefore requires attention to systemic effects rather than reflexive expansion of rights. A sounder approach is to govern training directly: increase provenance visibility, facilitate workable licensing mechanisms where appropriate, and preserve space for research and other socially valuable text-and-data-mining uses. On that reading, the AI Act's training-summary obligation may be understood as an early step toward a provenance infrastructure, although its practical effect will depend heavily on implementation detail and enforcement capacity (Regulation (EU) 2024/1689, 2024, art. 53(1)(d), recital 107).

5.4 Normative critique: power, inequality, and digital colonialism

Ownership rules are never neutral in global markets. Generative AI is developed disproportionately by a small number of firms with privileged access to compute, data pipelines, and legal capacity; it is trained on cultural production that is globally dispersed; and it is deployed in markets where enforcement power is uneven. The distributive risk is therefore familiar: value is extracted from dispersed creators and communities, control is consolidated in a few centres of technical and legal capacity, and commodified outputs are then recirculated into the same cultural markets from which the inputs were taken. Theories of data colonialism help to explain this pattern as a structural continuity rather than an accidental side effect. Couldry and Mejias (2019) argue that data-driven capitalism appropriates human life as a resource for extraction and accumulation, extending colonial logics into the digital sphere. Decolonial AI arguements makes a parallel point in the context of artificial intelligence, insisting that AI systems are embedded in historical and geopolitical power relations and may reproduce coloniality unless governance deliberately centres those who are most vulnerable to extraction, exclusion, and misrecognition (Mohamed *et al.*, 2020; Abeba Birhane, 2020). On that view, extending robust copyright protection to autonomous AI outputs would not be a

neutral doctrinal adjustment. In distributive terms, it would likely strengthen the position of actors already able to scale generation, platform access, and enforcement, while doing little to remedy the underlying extraction of training inputs. This is why a human creative control threshold matters for more than doctrinal tidiness. Properly understood, it operates as a modest corrective to asymmetry by limiting enforceable exclusivity to cases where human creative agency can actually be shown. Training-stage governance, by contrast, can be designed to address consent, compensation, and provenance more directly, without laundering upstream extraction into downstream output monopolies.

6 CONCLUSION

There is still limited authority that directly resolves the question "who owns AI-generated content" as a general proposition, because ownership is not analytically prior to copyrightability, and copyrightability itself turns on jurisdiction-specific concepts of authorship and originality. Even so, the comparative picture reveals a meaningful emerging convergence. In the United States, the Copyright Office has consolidated a human-authorship baseline under which purely autonomous AI outputs are not protected, while human-authored contributions to AI-assisted works may be protected where a person has determined sufficient expressive elements of the final work. EU doctrine reaches a functionally similar position through the concepts of "work," originality, and creative freedom, which remain structurally human-centred even without an express statutory human-authorship clause. The United Kingdom remains the principal outlier because section 9(3) of the Copyright, Designs and Patents Act 1988 provides a special allocation rule for certain computer-generated works, but recent scholarship increasingly treats that rule as unstable unless it is read through a meaningful originality threshold that reconnects rights to human creativity. On that basis, this article proposes a two-track reform strategy: first, jurisdictions should retain and, so far as possible, converge around a threshold of human creative control for output copyrightability, thereby avoiding rights inflation over scalable machine-generated abundance; second, regulatory energy should be redirected toward transparency, provenance, and licensing at the training stage, where extraction and compensation conflicts actually arise. In a world marked by jurisdictional fault lines, the aim should not be to award ownership everywhere, but to design rules that

can travel: human-centred, evidence-based, and resistant to the consolidation of global cultural rents in the hands of a few.

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