

CHAPTER 2

LEGAL RELATIONS: FROM THEORY TO PRACTICE

Artificial Intelligence Regulation and Intellectual Property Governance: The EU AI Act, the DSM Copyright Directive, and Ukraine's Two-Stage Harmonisation Path

Inga Bochkova¹

¹Ph.D. (Law), Senior Lecturer of the Department of Patent Science and Fundamentals of Law Enforcement Activities, O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine, ORCID: <https://orcid.org/0000-0003-0522-2908>

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Abstract. The rapid diffusion of artificial intelligence is reshaping how intellectual outputs are created, disseminated, and enforced, while exposing intellectual property systems to new risks related to training data, automated infringement, and platform power. At the same time, emerging regulatory models increasingly treat AI not only as a technology, but also as a governance object linked to fundamental rights and market integrity. This article analyses how the European Union's AI Act and the Copyright in the Digital Single Market (DSM) Directive jointly reframe intellectual property governance, and how Ukraine's two-stage regulatory roadmap operationalises European alignment under conditions of accelerated digital transformation. The study applies doctrinal legal analysis, comparative analysis of EU instruments, and structured policy mapping of national implementation measures. It also integrates selected international statistics on IP system scale and enforcement pressure to contextualise governance choices. The findings show that the AI Act's risk-based architecture strengthens IP governance indirectly through transparency and provider obligations, while the DSM Directive supplies the core legal logic for text and data mining boundaries and rights reservations. Ukraine's roadmap prioritises pre-regulatory capacity building through soft-law instruments, sandboxes, human-rights impact methodologies, and labelling tools, followed by adoption of a national AI law aligned with EU requirements. Empirical indicators of institutional readiness suggest that staged implementation can support governance credibility when coupled with interoperable complaint-handling mechanisms and evidence-oriented documentation. Future studies should evaluate enforcement outcomes of AI transparency duties, measure compliance costs for rights holders and AI developers, and test the effectiveness of machine-readable rights reservation and dataset summary mechanisms in cross-border disputes.

Keywords: AI Act; DSM Directive; text and data mining; rights reservation; general-purpose AI; transparency obligations; trusted flaggers; IP enforcement; policy harmonisation; evidence governance; intellectual property governance; artificial intelligence regulation.

JEL Classification: K11, K23, K24, K33, L86, O33, O34, O38
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Introduction. Artificial intelligence intensifies long-standing tensions in intellectual property (IP) law between incentives for creation and the realities of digital copying, platform distribution, and data-driven production. These tensions are no longer confined to copyright markets. They increasingly implicate trade secrets, database assets, and innovation pipelines, because AI systems depend on large-scale information flows that blur organizational boundaries and complicate provenance. In this context, legal systems face a dual task: they must preserve the normative core of IP protection while enabling legitimate innovation and safeguarding fundamental rights. The European Union has responded by adopting a comprehensive, risk-based AI regulation that interacts with adjacent legal regimes, including copyright rules and platform governance. The AI Act entered into force on 1 August 2024 and is widely framed as a foundational instrument with global diffusion potential.

For countries aligned with EU integration, the regulatory challenge is not only substantive harmonisation but also sequencing. Ukraine's policy approach illustrates an implementation logic that begins with preparatory, non-legislative instruments and moves toward an AI law analogous to the EU model. This article therefore examines AI regulation as a governance layer that shapes IP outcomes through transparency, accountability, and documentation requirements, rather than through redefining the existence or scope of IP rights themselves. The analysis is anchored in the interaction between the AI Act and the DSM Directive's rules relevant to text and data mining, rights reservation, and platform responsibilities.

Literature review. Contemporary scholarship increasingly treats IP protection as inseparable from digital governance and cybersecurity, because infringement and leakage are frequently enabled by platform architectures, cross-border distribution, and automated processing. Within this perspective, AI is a forcing function that challenges classical IP categories such as authorship, originality, and liability, while also expanding the operational importance of evidence, traceability, and institutional capacity. The legal literature on EU governance highlights a trend toward risk-based regulation, where obligations scale with potential harms and where transparency is used as a mechanism to discipline markets and protect rights.

A second research stream focuses on copyright boundaries for text and data mining and the feasibility of reserving rights in machine-readable forms. The DSM Directive establishes mandatory exceptions for text and data mining in defined contexts and clarifies how rights may be reserved for certain uses, which becomes directly relevant when AI developers rely on publicly accessible online content. A third stream addresses platform governance and complaint-handling models, including trusted intermediaries. In the EU, the Digital Services Act formalises the concept of "trusted flaggers" as qualified entities whose notices may receive priority treatment, illustrating an institutional design that reduces enforcement

friction while preserving procedural standards.

Finally, governance frameworks outside IP doctrine, particularly cybersecurity risk frameworks, have become important to evidence-oriented protection strategies. NIST CSF 2.0, for example, elevates governance as a core function and frames risk management roles, oversight, and documentation as prerequisites for defensible controls. This matters for IP because disputes increasingly turn on whether a party can demonstrate credible processes for provenance, confidentiality, and compliance.

Aims. The aim of this article is to substantiate a coherent governance interpretation of AI regulation as it affects intellectual property: first, by mapping how the EU AI Act and DSM Directive jointly shape the boundaries of lawful data use and transparency duties; second, by analysing Ukraine's staged implementation pathway as a model for capacity building and harmonisation; and third, by proposing evidence-oriented policy instruments and institutional interfaces that reduce compliance ambiguity for rights holders, AI developers, and platforms.

Methodology. The study uses a doctrinal and comparative legal methodology combined with policy mapping. First, it analyses the AI Act's risk-based structure and transparency obligations, including provider duties relevant to generated content disclosure and general-purpose AI documentation. Second, it examines the DSM Directive's text and data mining provisions and rights reservation logic as a copyright boundary that becomes operational in AI training and dataset governance. Third, it maps Ukraine's two-stage approach and associated instruments, including soft-law guidance, labelling tools, and planned adoption of a national AI law aligned with the EU model.

To contextualise regulatory design, the article integrates descriptive statistics on the scale of IP administration and enforcement pressures. These include global patent application volumes and estimates of global counterfeit trade, which together illustrate why governance systems prioritise traceable records, interoperable procedures, and capacity building. The article also uses an institutional readiness indicator series for Ukraine from the Government AI Readiness Index as an operational proxy for state capacity in AI governance.

Results. Ukraine's roadmap adopts a two-stage implementation logic: an initial phase focused on non-legislative instruments and institutional learning, followed by adoption of a national AI law aligned with the EU AI Act.

This sequencing is analytically important for IP governance because it treats compliance readiness as a public good. In the first stage, tools such as regulatory sandboxes, human-rights impact assessment methodologies, AI labelling tools, and sector-specific guidelines reduce uncertainty for businesses and clarify expected conduct before hard enforcement begins. In the second stage, the state consolidates these practices into binding

legislation designed not to contradict the EU framework and to function as its national embodiment.

Table 1 is introduced into summarise the sequencing logic and the practical governance function of each stage for IP-relevant AI uses.

Table 1. Ukraine's two-stage preparatory process for implementing an AI Act-aligned regime

Stage	Implementation focus	Illustrative instruments	IP governance relevance
Stage 1 (pre-regulatory)	Capacity building, experimentation, soft-law compliance	Sandbox; human-rights impact methodology; AI labelling tools; voluntary codes; sectoral guidelines	Reduces evidentiary and compliance ambiguity for creators, platforms, and AI developers; clarifies acceptable data and content handling
Stage 2 (binding law)	Adoption of AI law analogous to EU AI Act	Law on AI and alignment of related legislation	Creates enforceable duties and institutional mandates for oversight, remedies, and cross-border interoperability

Source: systematised by author based on (Bochkova, 2025)

Table 1 concludes that staged implementation is not merely a political compromise. It is a governance technique that can improve IP protection by strengthening documentation practices, clarifying permissible AI workflows, and establishing interfaces for complaint-handling and evidence validation before sanctions and formal liabilities intensify.

The analysis confirms that EU AI regulation shapes IP governance primarily through indirect mechanisms: transparency, documentation, and risk classification. The AI Act prohibits certain unacceptable-risk practices and imposes transparency duties for limited-risk systems, while high-risk systems face stricter requirements designed to protect safety and fundamental rights.

In parallel, the DSM Directive supplies the copyright boundary conditions for text and data mining and clarifies how rights may be reserved, including by machine-readable means for online content. Importantly, the AI Act's obligations for providers of general-purpose AI models explicitly include a copyright compliance dimension, including a policy for respecting rights reservation under the DSM Directive and a public summary of training data.

A further governance layer is provided by the Council of Europe Framework Convention on AI, which frames AI lifecycle activities as requiring consistency with human rights, democracy, and the rule of law. This matters for IP because IP conflicts in AI contexts often overlap with privacy, non-discrimination, and due process issues, especially where platforms mediate access, ranking, or monetisation.

Table 2 is introduced to synthesise how these instruments interact around IP-relevant risk points.

Table 2. How EU AI governance instruments shape IP outcomes

Instrument	Core mechanism	Primary IP-relevant effect	Typical compliance artifact
EU AI Act (Reg. 2024/1689)	Risk tiers; prohibitions; transparency; GPAI provider duties	Constrains harmful AI uses; requires disclosure and documentation that support accountability in IP disputes	Technical documentation; transparency notices; training-data summary for GPAI models
DSM Directive (Dir. 2019/790)	Text and data mining exceptions; rights reservation logic	Defines lawful boundaries for mining and signals how rights holders can reserve rights	Machine-readable reservation; licensing terms; platform and dataset governance records
Council of Europe AI Convention	Human-rights benchmarks for AI lifecycle governance	Reinforces due process, transparency, and rights-consistency expectations affecting platform dispute handling	Impact assessment methodologies; oversight protocols; remedy pathways

Source basis: EU legal texts and Council of Europe materials

Table 2 concludes that IP governance in AI environments is increasingly produced by the interaction of three regulatory logics: risk control, copyright boundary setting, and human-rights oriented procedural standards. This interaction shifts compliance from purely legal interpretation to evidence production and demonstrable governance performance.

The feasibility of AI regulation affecting IP outcomes depends on institutional readiness. Ukraine's case is instructive because the roadmap explicitly anticipates a capacity-building phase before adopting binding legislation.

The attached monograph reports an improving readiness trajectory in the Government AI Readiness Index, including growth in the overall score from 52.80 (2022) to 60.57 (2024).

Such metrics do not prove enforcement effectiveness, but they indicate strengthening governance inputs, particularly in government capability and data infrastructure.

Table 3 is introduced to present the readiness indicators as an empirical signal relevant to implementation sequencing.

Table 3. Ukraine in the Government AI Readiness Index (Oxford Insights)

Year	Total score	Government pillar	Technology sector pillar	Data and infrastructure pillar
2022	52.80	68.96	34.68	54.74
2023	53.29	68.93	36.18	54.75
2024	60.57	73.42	41.93	66.37

Source: systematised by author based on (Bochkova, 2025)

Table 3 concludes that improvements are concentrated in the pillars most relevant to rights-sensitive AI governance: state capacity and data infrastructure. This supports the policy logic of investing in soft-law tools,

labelling practices, and impact assessment methodologies that can later be formalised into enforceable obligations.

Two statistics illustrate why IP governance is increasingly built around scalable records and interoperable procedures. First, global patent filings reached 3.7 million applications in 2024, reflecting persistent growth in innovation system throughput. Second, global trade in counterfeit goods was estimated at USD 467 billion in 2021, corresponding to 2.3% of world trade, which indicates the magnitude of enforcement pressure in complex supply chains and platform markets.

These scale conditions make governance designs that privilege traceability and documentation more rational than designs that rely only on ex post litigation. They also explain why complaint-handling intermediation has gained prominence. In the EU context, the DSA formalises “trusted flaggers” as qualified entities, and Ukraine’s roadmap similarly proposes an intermediary model using “Trusted Flaggers” to filter and escalate complaints to major platforms during the adaptation period.

Discussion. The results support a governance interpretation in which AI regulation strengthens IP protection mainly by improving the quality of evidence, accountability, and procedural clarity, rather than by reassigning IP entitlements. This aligns with the AI Act’s architecture: it differentiates risks, prohibits certain practices, and requires transparency and documentation as a baseline for accountability. The DSM Directive then determines the legality boundary for mining and reuse, making rights reservation a central operational concept for training data governance.

From a policy design perspective, Ukraine’s staged model can be understood as a response to two constraints: the complexity of AI compliance and the institutional investment required to supervise it.

This approach is defensible when it produces measurable artifacts that later support enforcement, such as labelling practices, documented impact assessments, and interoperable complaint pathways. The complaint-handling design is especially important for IP because many disputes arise at the interface between creators and platforms, where asymmetric information and procedural opacity undermine effective remedies. Here, the conceptual similarity between Ukraine’s intermediary idea and the EU’s trusted-flagger model suggests a convergence toward institutionalised triage that reduces administrative friction while improving the credibility of notices.

A further implication concerns cybersecurity and evidence readiness. In AI-enabled workflows, the practical boundary of confidentiality and rights compliance depends on governance controls such as documentation, access discipline, and oversight. NIST CSF 2.0 is relevant because it frames governance as the organizing layer that binds policy, roles, and accountability to operational controls, which is precisely what courts and regulators often scrutinize when evaluating diligence and compliance. This suggests that future IP governance strategies should integrate AI compliance

with risk governance, particularly in organizations that rely on generative AI for content production or knowledge work.

Conclusions. This article demonstrates that the emerging European approach to AI regulation reshapes intellectual property governance through a combined architecture of risk classification, transparency duties, copyright boundary setting, and human-rights oriented procedural standards. The AI Act provides a horizontal compliance framework that increases the availability and reliability of documentation relevant to IP disputes, while the DSM Directive supplies the operational legality boundary for text and data mining and rights reservation.

Ukraine's two-stage harmonisation path illustrates how states can sequence implementation by first building capacity through soft-law instruments, labelling tools, and impact assessment methodologies, and only then moving to binding legislation aligned with EU requirements.

Empirical readiness indicators reported for Ukraine support the logic that governance inputs are improving in the pillars most relevant to rights-sensitive AI regulation.

Finally, global scale pressures in IP administration and enforcement, illustrated by patent filing volumes and counterfeit trade estimates, justify evidence-oriented, interoperable governance designs that reduce reconciliation gaps and accelerate credible remedies.

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