



The role of WIPO in regulating AI and IP at the global level

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Abstract

This article examines the evolving role of the World Intellectual Property Organization (WIPO) in regulating the intersection of artificial intelligence (AI) and intellectual property (IP) at the global level. As AI technologies disrupt traditional notions of authorship, inventorship, data use, and enforcement, WIPO has emerged as the primary multilateral forum guiding international responses through soft-law instruments, technical tools, policy consultations, and capacity-building initiatives. The paper analyses WIPO's mandate, its key initiatives such as the WIPO Conversation on IP and AI and its influence in shaping global norms, while also highlighting inherent challenges including its member-state-driven structure and reliance on non-binding frameworks. A brief comparative insight with the EU AI Act and OECD AI Principles illustrates how regional and international instruments complement WIPO's efforts. The article concludes with policy recommendations aimed at strengthening WIPO's regulatory relevance and enhancing global coherence in AI-IP governance.

Keywords: WIPO; Artificial Intelligence; Intellectual Property; Global Governance; Soft Law; AI Regulation; Eu AI Act; OECD AI Principles; Innovation Policy; International Ip Law

1. Introduction

The interconnected nature of the world today makes it increasingly possible for nations and persons across different nations of the world to relate on perennial global issues. Thus, every international organization provides a forum where state parties and discuss and address and address global challenges. One of the current global issues is the importance of intellectual property and its attending realities. The growth in civilization has made it increasingly important to fashion out a global acceptable outlook for Intellectual Property (IP).

More recently, the rising awareness and use of Artificial Intelligence (AI), raises particular questions as to many cardinal foundations upon which the IP law is built. IP is a legal protection for creatives in protecting their creativity and to ensure that there is no encumbrance to their rights as a creative. However, in an age where AI is gradually becoming one of the major sources of information, certain questions arise; Is AI a creator who can be protected by IP? Can AI be said to have contravened an IP law and can AI be held accountable for such? These and many more questions reverberate on this subject.

While several countries of the world have their internal arrangements as regards their IP regulations, the global nature of AI activities demands that these questions can only be answered by international law. Thus, the World Intellectual Property Organization is therefore called to action. The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations, established in 1967. It is responsible for promoting the protection of intellectual property (IP)—such as patents, trademarks, copyrights, and designs around the world. Thus, this article seeks to critically investigate the role of WIPO in regulating IP and AI at the global level.

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2. Understanding AI and its impact on IP rights

Artificial Intelligence (AI) comprises a broad range of computational technologies designed to perform tasks that typically require human intelligence. These technologies allow robots to create content on their own, identify patterns, learn from data, and make decisions. This “beautiful” innovation has in certain ways which will now be discussed blurred and complicated IP rights.

Traditional concepts of authorship and ownership in intellectual property law are fundamentally challenged by the emergence of sophisticated artificial intelligence, particularly generative AI systems that can create text, images, music, software, and designs. AI tools now produce content that mimics human originality on their own, despite the fact that copyright laws around the world are predicated on the idea that creative works must come from a human author. This presents difficult issues of who, if anyone, ought to be acknowledged as the creator or proprietor of such works.

Furthermore, Patent systems worldwide require that an invention be attributed to a legally recognized inventor, traditionally understood to be a natural person who contributes to the inventive concept. AI disrupts this assumption by performing tasks that resemble inventive activity, leading to major disputes about whether AI can or should be named as an inventor on patent applications.

Also, the use of copyrighted materials as training data is a major IP issue triggered by AI because most generative models are trained on vast datasets scraped from the internet, which often include books, music, images, articles, and other works protected by copyright. The use of this content without the express consent of the owners of the rights raises concerns about whether it is infringement or fair use/fair dealing.

Data protection and trade secrets have also become key issues triggered by AI because modern AI systems rely heavily on large datasets that may contain personal, confidential, or commercially sensitive information. When such data is collected, processed, or used for training without proper consent or safeguards, it raises serious privacy concerns and potential violations of data protection laws such as the GDPR, NDPR, or other global privacy regimes.

Lastly, because AI technologies make it simpler, quicker, and less expensive to produce, alter, and distribute material globally, enforcement has become a significant intellectual property concern in the digital age. AI-generated outputs, including software, music, photos, and texts, can be created in a matter of seconds and shared quickly across digital platforms, making it challenging for intellectual property owners to keep an eye on and defend their rights. When anonymous individuals, decentralized platforms, and cross-border digital environments are involved, traditional enforcement systems find it difficult to keep up with the volume and speed of AI-enabled infringement.

3. Overview of WIPO’s mandate and global IP governance role

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations established in 1967 by the WIPO Convention, though its origins trace back to the earlier *Bureaux Internationaux Réunis pour la Protection de la Propriété Intellectuelle* (BIRPI), founded in 1893 to administer the Paris and Berne Conventions on industrial property and copyright. WIPO became part of the UN system in 1974, gaining a formal mandate to promote the protection of intellectual property (IP) worldwide through cooperation among states and in collaboration with other international organizations. Its core mandate includes developing an accessible and balanced international IP system, administering global IP treaties, providing registration and dispute-resolution services, supporting capacity-building in member states, and facilitating international policy dialogue on emerging IP issues. In addition to managing international IP systems including the Madrid System, Hague System, and Patent Cooperation Treaty (PCT), WIPO currently oversees over two dozen treaties and is crucial in establishing international IP standards, particularly in reaction to technological developments like artificial intelligence.

As the main international venue where member states negotiate treaties, standards, and recommendations that establish uniformity across national IP systems, WIPO plays a critical role in harmonizing worldwide intellectual property laws. WIPO guarantees that nations adopt common baseline regulations for the protection of copyrights, patents, trademarks, and industrial designs through the administration of important international agreements, including the Berne Convention, Paris Convention, Patent Cooperation Treaty (PCT), Madrid System for trademarks, and Hague System for designs. Additionally, it makes harmonization easier by assisting developing nations in aligning their national laws with global best practices through model laws, soft-law instruments, technical support, and capacity-building initiatives.

WIPO's regulatory power is inherently limited because it operates as a member-state-driven organization, meaning that it cannot impose binding rules on countries without their consent and must rely on diplomatic negotiations that often move slowly and reflect the political and economic interests of diverse states. Unlike bodies with supranational authority, WIPO lacks the power to enforce compliance or compel harmonization, and its treaties typically require consensus or broad agreement, making it difficult to address rapidly evolving challenges such as AI-related IP issues with speed or uniformity.

4. WIPO's key initiatives on AI and ip

WIPO has not been oblivious of the current global trends with regards to IP especially based on the disruptions that AI operations is causing on the global scene. Thus, there has been a number a number of initiatives targeting at changing the narratives and ensure the continual respect of IP rights even in this age of AI and modern technologies. Some of these initiatives are now discussed subsequently;

4.1. WIPO Conversation on IP and AI

WIPO Conversations are a series of open, inclusive global consultations organized by the World Intellectual Property Organization (WIPO) to discuss emerging issues at the intersection of intellectual property (IP) and new technologies—especially Artificial Intelligence (AI). These conversations provide a global platform where state parties can harmonize policies, discuss strategies and share ideas on how to deepen the practice of IP.

The forum helps build collective understanding of how AI (and other frontier technologies) intersects with IP. Given the technical complexity of AI, many stakeholders may lack full awareness of the legal, economic, and social implications. The Conversation acts as a bridge to close this information gap. WIPO has published issues papers, received public consultations, and integrated hundreds of submissions to shape the discussions.

From the backdrop of the purpose of these conversations, it is evident that it is a significant move by WIPO for the advancement of IP in the AI dominated territory in many regards. The meeting helps close the policy and technological gap by bringing in stakeholders from both developed and developing nations. This is important because AI's benefits (and risks) are not evenly distributed. Some countries may lack the infrastructure, expertise, or legal frameworks to deal with AI-IP issues.

WIPO's role as convener is especially significant because it is one of the few global institutions focused solely on intellectual property, giving it a unique mandate. This means WIPO can act as a bridge between IP policy communities and frontier-technology communities.

The WIPO Conversation has assisted in identifying and prioritizing the most important policy concerns at the nexus of artificial intelligence and intellectual property throughout its sessions. In the beginning, WIPO released a draft "Issues Paper" and received over 250 submissions from the general public. The document was then updated to take those comments into account. The procedure demonstrated a clear understanding that AI involves fundamental legal issues in addition to being a technical difficulty, especially with regard to definitions (what constitutes AI), inventorship, and ownership of works created by AI.

4.2. WIPO Publications and Policy Guidance

One of the most significant initiatives undertaken by the World Intellectual Property Organization (WIPO) in the field of Artificial Intelligence (AI) and Intellectual Property (IP) is the development of publications and policy guidance. Aimed at helping member states, innovators, creators, and legal practitioners navigate the fast-evolving interaction between AI technologies and the IP system. These materials are part of WIPO's broader mandate to provide evidence-based, neutral, and internationally relevant guidance to support informed decision-making at national, regional, and global levels.

The publications of WIPO fulfill a number of crucial purposes. They start by mapping the new legal and policy issues brought up by AI throughout the intellectual property (IP) environment, including data rights, patents, copyright, trademarks, and trade secrets. WIPO identifies important areas where AI challenges conventional IP doctrines through issue papers, guidelines, and research reports. These areas include establishing transparent methods for using copyrighted materials as training data, determining inventorship in AI-assisted creations, and clarifying authorship in AI-generated works. Instead of imposing norms, these papers offer comparative insights and analytical frameworks to help governments create their own solutions.

Thus, these publications create a wider understanding of the happenings on AI and IP globally preparing member states to take appropriate actions in form of guidelines and policies. It also helps the global community in their deliberations towards achieving an IP more friendly environment globally.

4.3. WIPO's Technical Tools and Infrastructure

A central component of this effort is the WIPO AI Tools for IP Administration, which leverage machine learning to improve processes within national and regional IP offices. For example, WIPO's AI-based image similarity tool Aids trademark examiners by automatically identifying visually similar marks, thus reducing examination time and enhancing decision-making accuracy. Similarly, AI-powered automatic text classification systems help categorize patent documents into the International Patent Classification (IPC) scheme more efficiently than manual methods. These tools directly address the increased complexity and volume of IP applications driven by digital innovation.

Enhanced access to worldwide IP data via platforms like WIPO IP Portal, WIPO CASE (Centralized Access to Search and Examination), and PATENTSCOPE is another of WIPO's infrastructure efforts. These systems incorporate AI algorithms to offer analytics dashboards, prior art recognition, and more potent search features. By embedding AI into these databases, WIPO improves transparency, strengthens patent-quality assurance, and assists member states in building modern, data-driven IP ecosystems.

4.4. Capacity Building and International Cooperation

A key component of WIPO's AI and intellectual property programs is capacity building and international cooperation. Many nations, especially developing and least-developed economies, lack the institutional resources, technological know-how, and legal frameworks necessary to handle AI-related intellectual property issues as AI quickly changes the global innovation environment. In order to close this gap, WIPO offers platforms for international cooperation, specialized training, and technical support so that all member states can actively engage in the developing AI-driven IP ecosystem.

A central component of this initiative is WIPO's training and knowledge-transfer programs, which equip policymakers, IP officials, creators, and innovators with the skills needed to address AI-related issues. Through the WIPO Academy, specialized workshops, webinars, and regional seminars, WIPO offers courses on topics such as AI in patent search and examination, the legal implications of AI-generated works, and data governance for IP systems. These programs help national IP offices understand how AI tools can enhance examination efficiency, improve prior art search, and strengthen rights administration. For creators and entrepreneurs, capacity-building initiatives also provide guidance on how to protect AI-assisted creations, manage licensing, and navigate the risks in using copyrighted materials for training AI models.

In addition to providing technical support and training, WIPO is crucial in promoting international policy collaboration on IP and AI. WIPO brings together governments, academics, business stakeholders, and civil society to discuss changing IP issues connected to AI through forums such as the WIPO Conversation on Intellectual Property and Artificial Intelligence and expert working groups. Despite disparate legal traditions and degrees of technical advancement, these international discussions encourage transparency, enhance knowledge sharing, and assist nations in coming together around common values. In order to resolve cross-border concerns like inventorship in AI-assisted inventions, authorship of generative AI outputs, and the handling of copyrighted materials used to train AI models, international cooperation is particularly important.

4.5. WIPO'S ROLE IN SHAPING GLOBAL NORMS FOR AI AND IP

The World Intellectual Property Organization (WIPO) plays a pivotal role in shaping emerging global norms governing the intersection of artificial intelligence (AI) and intellectual property (IP). Although WIPO does not legislate binding global rules, it serves as the central multilateral forum where states, experts, and stakeholders collectively deliberate on how the international IP system should adapt to technological disruption. Through agenda-setting, convening power, soft-law instruments, and policy coordination, WIPO influences the direction of global normative development in this rapidly evolving domain.

As an international organization, the development of WIPO's soft laws which guidelines, best practices and model frameworks is a major role in shaping AI and IP globally. These international instruments carry a global persuasive appeal to all member states and in most cases serves as the benchmark for the states in organizing itself. Thus, WIPO's instruments such as; WIPO Issues Papers on IP and Artificial Intelligence (AI), WIPO Guidelines and Toolkits, WIPO Standards (ST Series) among others are testament to the subtle compelling influence in shaping AI and IP globally.

Also, the fact that WIPO gives the opportunity for a global forum to discuss IP issues is a major role in this regard. The cooperation and consolidation that interaction between nations gives in resolving issues around AI and IP is very important. WIPO has created a platform and a strategy in building consensus toward future international legal instruments.

Lastly, a significant dimension of WIPO's role in shaping global norms for AI and intellectual property is its effort to strike a balance between promoting innovation incentives, ensuring ethical use of AI, and advancing global equity. As AI transforms creative and inventive processes, the challenge for the international IP system is to encourage technological progress while preventing outcomes that undermine human rights, fairness, cultural diversity, and the participation of developing economies. WIPO's normative work seeks to mediate these tensions through soft-law instruments, multistakeholder dialogues, and policy guidance that emphasize responsible innovation.

5. Challenges and limitations in WIPO's regulatory roles

Despite its central position in the global intellectual property architecture, the World Intellectual Property Organization (WIPO) faces significant challenges and structural limitations in exercising its regulatory role—especially in emerging areas such as artificial intelligence (AI) and IP. These constraints affect the speed, scope, and effectiveness of its efforts to guide international governance of AI-driven innovation.

Firstly, WIPO cannot establish legally enforceable regulations on its own; instead, it is subject to the authority of its member nations. In order to negotiate new treaties or establish legally enforceable standards, nations with different legal systems, economic interests, technological capabilities, and policy priorities must reach a wide political consensus. While poor nations place a higher priority on access to technology, digital equity, and policy flexibility, developed nations frequently advocate for stronger IP protection to preserve technical leadership. The development of legally binding agreements pertaining to AI is somewhat slowed by this discrepancy.

Furthermore, the majority of WIPO's outputs in the AI-IP domain; Issues Papers, guidelines, best-practice documents, model laws constitute soft-law instruments. Despite their influence, these documents are not legally binding, so states must voluntarily adopt them before they can be implemented. As a result, WIPO's ability to set uniform worldwide standards is restricted, and approaches to AI-related concerns may become increasingly diverse between jurisdictions.

Lastly, WIPO has to manage delicate trade-offs between global equality, artists' rights, data governance, innovation incentives, and public interest considerations. It is fundamentally challenging to strike a balance between these conflicting interests, particularly when nations cannot agree on whether AI-generated material should be protected by intellectual property, how training data should be controlled, or how to guarantee equity and transparency in global AI development. Although vital, WIPO's neutral posture frequently prevents it from taking strong stances on contentious matters.

6. Comparative insights

It is important to state that there are also other regional bodies which has been seeking to offer assistance with regards to the interplay between AI and IP. This segment shows a brief comparative analysis between WIPO and these bodies while showing how they complement in the discourse of AI and IP.

6.1. European Union, AI Act (Binding, Risk-Based, Safety-Focused Regulation with IP Implications)

The EU AI Act is the first comprehensive, legally binding AI regulatory regime in the world. Though it is not an IP law, it has major implications for IP policy and rights, particularly around transparency obligations for Generative AI models, Risk classification that affects innovation pathways and Requirements for providers of foundation models

It compliments WIPO by providing binding regional rules where WIPO provides voluntary global guidance. It also brings regulatory clarity on transparency which helps advance the debates WIPO is leading on copyright and AI training data. EU decisions often influence global discussions and serve as models for WIPO's soft-law frameworks.

6.2. OECD Frameworks (Principle-Based, Economic and Ethical Orientation)

The OECD AI Principles (2019), the first internationally endorsed AI governance principles—focus on; Human-centered AI, Transparency and explain ability, Safety and robustness, Accountability and Inclusive growth and sustainable

development. Although the OECD is not an IP-focused body, its principles strongly influence ethical parameters for using data in AI training and Historical alignment with WIPO's global standard-setting discussions.

The OECD compliments WIPO in that it establishes high-level ethical and economic governance that supports WIPO's more IP-specific work. It also provides empirical research, measurements, and policy analyses that inform WIPO's position.

7. Policy recommendations

As a way to wind down on this discourse, the following policy recommendations are given to further strengthen the role of WIPO in shaping AI and IP Globally;

7.1. Strengthen WIPO's Soft-Law Instruments for AI and IP Governance

WIPO should expand and formalize its soft-law frameworks such as guidelines, model provisions, best practice notes, and technical standards Aimed at harmonizing global approaches to AI and IP. Clearer normative guidance on emerging issues such as AI inventorship, ownership of AI-generated works, training data transparency, and algorithmic accountability would help member states adopt coherent policies while negotiations on binding treaties continue to evolve.

7.2. Develop Global Standards for Transparency in AI Training Data

Standardized disclosure templates, interoperable metadata systems, and auditable documentation requirements should be promoted. WIPO should coordinate the development of a global minimum standard for transparency regarding the use of copyrighted works in training AI models. Such standards, in line with emerging regimes like the EU AI Act, would clarify lawful data use, reduce cross-border legal uncertainty, and enable creators to understand how their works are used.

7.3. Enhance Global Representation and Inclusivity in AI Norm-Setting

To ensure equitable outcomes, WIPO should strengthen participation of developing and least-developed countries in its AI and IP discussions. This includes expanding funding for technical missions, facilitating multilingual consultations, and creating an AI-IP fellowship program for policymakers and IP office staff from under-represented countries. Broader inclusivity will help prevent global regulatory fragmentation and avoid norms that privilege technologically advanced states.

8. Conclusion

WIPO's role in regulating AI and intellectual property at the global level is increasingly indispensable as technological disruption accelerates. Although constrained by its member-state-driven mandate and reliance on soft-law mechanisms, WIPO has emerged as the principal forum for developing shared understandings, fostering international cooperation, and shaping emerging norms on AI and IP. Through initiatives such as the WIPO Conversation on IP and AI, technical tools, capacity-building programs, and policy guidance, it provides a platform for harmonizing diverse national approaches and addressing complex issues such as inventorship, data use, and enforcement in the digital era. While challenges remain particularly the rapid pace of innovation and divergent national interests, WIPO's convening power, neutrality, and global reach position it to continue driving coherence, inclusivity, and balance in the evolving governance landscape. Ultimately, strengthening WIPO's frameworks and enhancing international collaboration will be essential to ensuring that the global IP system remains responsive, equitable, and fit for purpose in the age of artificial intelligence.

References

- [1] WIPO. (2024). World intellectual property report 2024: Making innovation work for development. World Intellectual Property Organization.
- [2] World Intellectual Property Organization. (2024). WIPO.
- [3] Kumar, S. R. (2023). Artificial intelligence and intellectual property laws prospects and challenges. Independent Author.

- [4] Cuntz, A., Fink, C., and Stamm, H. (2024). Artificial intelligence and intellectual property: An economic perspective. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.4757971>
- [5] Agrawal, A., Gans, J., and Goldfarb, A. (2022). Power and prediction: The disruptive economics of artificial intelligence.
- [6] NAIM, N. (2024). Artificial intelligence creations and ownership – Who should the intellectual property belong to? Developments in Intellectual Property Strategy, 1-24. https://doi.org/10.1007/978-3-031-42576-9_1
- [7] Pehlivan, C. N., Forgó, N., and Valcke, P. (2024). The EU artificial intelligence (AI) Act: A commentary. Kluwer Law International B.V.
- [8] Nikolinakos, N. T. (2023). EU policy and legal framework for artificial intelligence, robotics and related technologies - The AI act. Springer Nature.
- [9] OECD. (2024). OECD artificial intelligence review of Germany.
- [10] OECD. (2024). OECD digital economy outlook 2024 (Volume 1) embracing the technology frontier: Embracing the technology frontier. OECD Publishing.