**Committee:** United Nations Commission on Science and Technology for Development (UNCSTD)

**Issue:** Mitigating the Impacts of Generative Artificial Intelligence on the Commodification of Creative Content

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## Introduction

Generative artificial intelligence (Generative AI; Gen AI) is transforming creative industries by enabling rapid content production. However, it simultaneously threatens the economic value, ownership rights, and sustainability of human creative labor through the unauthorized use and commodification of copyrighted works.

Generative AI refers to a class of machine learning systems capable of synthesizing novel media, such as text, images, and video, by inferring latent structural patterns within a large corpus of training data. The application of generative AI in intuitive conversational interfaces (chatbots) and image generation programs such as ChatGPT, Google Gemini, DALL-E, Stable Diffusion, and Midjourney precipitated the technology's popularization for general-purpose applications, extending its use beyond the corporate and institutional contexts in which it was initially concentrated. The democratization of generative AI technology led to an influx of AI-generated content (AIGC) in both corporate and individually produced media.

This proliferation of AIGC has led to numerous copyright lawsuits against generative AI companies. OpenAI, the artificial intelligence research organization responsible for the GPT series of large language models (LLMs), has been subject to lawsuits filed by groups including the New York Times Company, the Daily News, and the Authors Guild, while Stability AI's Stable Diffusion engine has similarly been accused of copyright infringement by Getty Images, and a collection of visual artists (Andersen et al.). Because generative AI models are trained on copyrighted content, whether the resulting AIGC constitutes a transformative work protected under fair use or an infringement on copyright remains a contested legal and ethical issue.

This report examines the advent of generative AI, the copyright law surrounding it, and the ethical issues involved in the creation of AIGC.

## Definition of Key Terms

**Generative Artificial Intelligence (Generative AI; Gen AI)**
A type of artificial intelligence that learns from existing data and creates new content such as text, images, music, video, or code, in response to a user's prompt or request.

**Creative Content**
All types of artistic or expressive material produced for cultural, informational, or entertainment purposes, such as literature, music, films, visual art, and digital design.

**Commodification**
The process of turning something that originally has cultural, social, or artistic value into a marketable product or commodity.

**Intellectual Property**
The legal rights attached to creations of the mind, including artistic works, inventions, and designs. In the context of generative AI, it is central to questions of ownership, compensation, and unauthorized use of creative works.

**Copyright**
A legal protection granted to original works of authorship. It is especially important in debates over whether AI-generated outputs can be protected and whether AI systems may use copyrighted material for training.

**Limitations and Exceptions to Copyright**
Provisions in local copyright law or the Berne Convention that allow for copyrighted works to be used without a license from the copyright owner in order to balance the interests of copyright holders with the public interest in the wider distribution and use of creative works. Key examples of local copyright law include the Fair Use doctrine in the United States, the Fair Dealing exceptions in copyright law in countries such as Malaysia, Singapore, South Korea, Australia, Canada, and the United Kingdom.

## History

### The Advent of Machine Learning (1949-2014)

The term *'machine learning'* was coined by IBM employee Arthur Samuel in 1959, when he developed a computer program capable of calculating each side's chances of winning at checkers. The roots of machine learning, however, can be traced back to 1949, when Canadian psychologist Donald Hebb published <The Organization of Behavior>, in which he introduced a theoretical neural structure formed by interactions among nerve cells, laying the groundwork for how machine learning algorithms work, wherein connected artificial neurons adjust the strength of their connections based on data.

By the early 1960s, an empirical "learning machine" with punched tape memory, called Cybertron, had been developed by the Raytheon Company to analyze sonar signals, electrocardiograms, and speech patterns using rudimentary reinforcement learning. Beginning in the late 2000s and early 2010s, advances in deep learning yielded substantial improvements in image classification, speech recognition, and natural language processing. In 2014, Ian Goodfellow et al. introduced generative adversarial networks (GANs), which were capable of generating realistic synthetic data. The introduction of GANs enabled artificial intelligence systems to generate novel images, sounds, and text rather than merely classify or predict existing data.

### Algorithmically Generated Media and the Markov Chain (1906-1970):

The capacity to model natural language through algorithmically generated media is historically derived from the development of the Markov chain, a concept introduced by Russian mathematician Andrey Markov in 1906. Markov developed the model through a statistical analysis of vowel and consonant sequences in Pushkin's poem <*Eugene Onegin*> so that a Markov chain can generate probabilistic text sequences based on the observed patterns once trained on a text corpus.

The creation of AI-generated visual media began in the early 1970s, as artists began employing computers to extend generative techniques beyond these early probabilistic models. Harold Cohen developed and exhibited works produced by AARON, a computer program designed to create paintings autonomously. The concept of 'generative' AI also emerged during this period in reference to computer-aided process planning, a method for generating sequences of actions to reach a specified goal through state-space search and constraint satisfaction. Generative planning was subsequently applied to the generation of crisis action plans for military use, process plans for manufacturing, and decision plans for prototype autonomous spacecraft.

### The Development of Transformer (GPT) Models (2018-2022):

The introduction of the *'transformer'* architecture facilitated significant advances in generative modeling, as, in contrast to earlier recurrent neural networks (RNNs) and long short-term memory (LSTM) models, *transformers* could be trained on large-scale text corpora at a markedly greater speed, leading to the development of generative pre-trained transformer (GPT) models, beginning with GPT-1 in 2018. The successive releases of GPT-1 (2018), GPT-2 (2019), and GPT-3 (2020) demonstrated progressively sophisticated natural language generation, enabled by exponential increases in model parameters and training data. In November 2022, OpenAI released ChatGPT to the public, and by 2023, the platform had popularized generative AI for general-purpose text-based tasks.

However, the scope of generative AI development was not limited to the written word. In March 2020, the release of 15.ai, a complimentary web application created by an anonymous MIT researcher capable of generating convincing character voices from minimal training data, became one of the earliest publicly available applications of generative AI. Subsequently, DALL-E, a closed-source transformer-based generative model developed by OpenAI, drew widespread attention to text-to-image generation.

### Copyright and the Capitalization of AI-Generated Content (AIGC) (2021-2026):

Beginning in 2021, the mass proliferation of AIGC brought into contention both the use of copyrighted works for generative AI training without fair remuneration for original creators and the diminishing market value of human creative labour. Creative sectors,

including music, film, literature, and design, raised formal objections to the inclusion of their works in AI training datasets, confronted with concerns that AIGC was contributing to market saturation and displacing human artists. Generative AI companies' selection of copyrighted works as training data has, in some cases, resulted in generated outputs that substantially resemble copyrighted material on which the models were trained, a phenomenon known as style mimicry.

The monetization of AIGC has also raised questions of authorship on whether AI-generated content can be copyrighted at all (Thaler v. Perlmutter) and how much human input is required for a work to qualify for copyright protection.

(Due to the vast quantity and mutable nature of related intellectual property cases, we advise visiting the following link for concurrent legislative developments: https://www.mishcon.com/generative-ai-intellectual-property-cases-and-policy-tracker)

### Regulatory Structures On Copyright and Generative AI (1886–2026):

The Berne Convention, established in 1886, specified that copyright protection requires no formal registration and is based on the concept of "original works of authorship." The World Intellectual Property Organization (WIPO), which has administered the Convention since its founding in 1967, has struggled to update this framework for generative AI, as most member states interpret "authorship" as requiring a human author. Compounded by the absence of AI-specific provisions in subsequent treaties such as the TRIPS Agreement, and the lack of international binding regulations, international copyright has failed to accommodate the cultural lag caused by AIGC.

## Key issues

### Copyright and Ownership of AI-Generated Content

The first key issue concerns copyright and ownership of AI-generated content, centering on whether works produced by generative AI systems are eligible for copyright protection and, where they are, to whom such protection accrues. Current legal frameworks across numerous jurisdictions, including guidance issued by the U.S. Copyright Office, hold

that copyright protection is contingent upon meaningful human authorship. Works generated entirely by a machine with minimal human input may therefore fail to qualify for protection altogether. Compounding this difficulty is the unresolved question of whether training AI models on copyrighted material without authorization constitutes infringement or falls within the bounds of fair use, a persistent ambiguity that leaves both creators and companies operating without clear legal footing.

### Platform Monetization and Market Concentration

The second issue concerns platform monetization and market concentration, as generative AI enables platforms to saturate markets with low-cost content while consolidating power among a small number of large technology firms. By reducing the cost of production and expanding supply, AI-generated content places downward pressure on human creators' income and visibility. Compounding this dynamic, platforms typically control the algorithms governing content distribution, affording them substantial influence over which works achieve prominence. The result is a structural imbalance in which platforms capture a disproportionate share of value generated by creative activity, while creators—particularly independent or smaller ones—retain diminished leverage to negotiate fair compensation or safeguard their market position.

### Creative labor and ethical governance

The third issue concerns creative labor and ethical governance, encompassing concerns over whether AI will automate or devalue creative work and what ethical principles should govern the relationship between human creators and machine systems in creative production. As AI systems grow increasingly capable, they may displace human creators across various domains, contributing to job loss, diminished artistic integrity, and reduced cultural diversity. Policymakers must therefore determine how to reconcile continued innovation with adequate ethical safeguards, including transparency, proper attribution, and fair remuneration for creators. Absent robust ethical governance, the creative economy risks growing increasingly dominated by private technology actors, thereby undermining the long-term sustainability of human creative labor and the broader social value of cultural expression.

## Major Parties Involved and Their Views

## United States

### *The U.S. Copyright Office*

The U.S. Copyright Office has stated that works created entirely by artificial intelligence cannot receive copyright protection, and has claimed that although AI-assisted works can technically qualify for copyright, the usage of AI must be properly stated. In Part 3 of its report *Copyright and Artificial Intelligence*, released in pre-publication form in May 2025, the Office examined whether training AI models on protected works constitutes fair use. It concluded that the analysis is highly fact-dependent and must be conducted case by case, and that the transformation of protected works into model weights is not, in itself, automatically fair use.

### *Authors Guild (USA)*

The Authors Guild has emerged as a leading advocate for writer rights in the AI era, demanding consent, attribution, and fair compensation when literary works are used to train AI systems. The organization has filed lawsuits against major AI developers, arguing that generative AI threatens the market value of original writing and undermines human creativity. The Guild's initiatives include public awareness campaigns, legal challenges, and lobbying for stronger copyright protections, demonstrating how creator-led advocacy can shape policy.

### *Recording Industry Association of America (RIAA)*

The RIAA has taken a strong stance against AI training on copyrighted music, calling it the largest act of copyright infringement in history. The organization represents major record labels and artists, pushing for licensing agreements, compensation mechanisms, and legal safeguards to protect musical works from unauthorized AI use. RIAA's enforcement efforts include litigation against AI companies and advocacy for federal legislation that ensures fair remuneration for rights holders.

### *Motion Picture Association (MPAA)*

The MPAA advocates for film and television industry rights, demanding that AI companies obtain consent and provide compensation before using copyrighted audiovisual content for training. The association has filed major lawsuits against AI developers, arguing that generative AI risks devaluing original creative work and displacing human creators in the entertainment sector. MPAA's priorities include stricter copyright enforcement, transparency requirements for AI datasets, and protections for visual and narrative creativity.

## European Union

### *European Commission*

The European Commission leads EU policy on AI and intellectual property, emphasizing creator rights, transparency, and accountability through the EU AI Act. The Commission requires disclosure of datasets used to train AI models and offers an opt-out mechanism for rights holders to prevent their works from being included in training data. The agency works to balance innovation with ethical safeguards, favoring human-centered AI and cultural diversity protection across member states.

### *Authors' Licensing and Collecting Society (ALCS) – UK*

The ALCS represents UK writers and advocates for fair compensation when literary works are used in AI training. The organization has pushed for licensing frameworks that ensure creators receive royalties for AI use of their content, arguing that unauthorized training undermines the economic value of writing. ALCS conducts research on AI's impact on creative labor and lobbies for policy changes that protect authors' rights in the digital age.

## China

### *National Copyright Administration of China (NCAC)*

The National Copyright Administration of China (NCAC), alongside the China National Intellectual Property Administration and the Cyberspace Administration of China (CAC), oversees AI-related intellectual property policy. China supports balanced frameworks

that protect creators while enabling AI development, emphasising transparency in training data and fair compensation for rights holders. The CAC's Interim Measures for the Management of Generative Artificial Intelligence Services (2023) require providers to use training data obtained from lawful sources and to respect the intellectual property rights of others, making China one of the first states to impose binding obligations on generative AI providers.

## Japan

### *Ministry of Economy, Trade and Industry (METI)*

The Ministry of Economy, Trade and Industry leads Japan's AI policy, prioritizing innovation-friendly copyright exceptions that allow broad use of copyrighted material for AI training. METI views AI as critical for economic competitiveness and technological leadership, advocating for flexible legal frameworks that reduce barriers to AI development. The ministry supports industry partnerships and international collaboration to strengthen Japan's position in the global AI market.

## Singapore

### *Intellectual Property Office of Singapore (IPOS)*

The Intellectual Property Office of Singapore oversees AI and IP policy, adopting innovation-friendly copyright exceptions that prioritize AI development over strict creator protections. IPOS supports broad exceptions for AI training to attract tech investment and foster domestic AI innovation. The office emphasizes economic growth and technological leadership while maintaining minimal regulatory barriers for AI companies.

## International Organizations

### *United Nations Educational, Scientific and Cultural Organization (UNESCO)*

UNESCO advocates for human-centered AI, transparency, attribution, and fair remuneration for creators in the age of generative AI. The organization emphasizes the

importance of protecting cultural diversity and ensuring AI systems do not reinforce bias or concentrate power in private tech actors. UNESCO promotes international cooperation and policy frameworks that balance innovation with creative labor protection.

### *World Intellectual Property Organization (WIPO)*

WIPO facilitates global discussions on AI and intellectual property, including whether AI-generated works deserve copyright protection. The organization promotes balanced frameworks that protect rights while ensuring access and development for all countries. WIPO serves as a neutral platform for international dialogue between governments, industry, and civil society on AI governance.

### *South Centre*

The South Centre represents 54 developing countries and warns that strong IP protection combined with AI technology concentration in a few nations will widen the global technological gap. The organization advocates for a development-oriented, human-rights-based approach to AI and IP regulation, emphasizing access to AI technology and equitable international cooperation for sustainable development goals.

## Private Sector Entities

### *OpenAI*

OpenAI has emerged as a leading developer of generative AI, arguing that training on large copyrighted datasets is necessary for model performance and falls under fair use or research exemptions. The company has entered licensing agreements with rights holders including the Associated Press, Axel Springer, News Corp, Condé Nast, and Getty Images in order to reduce legal risk, while remaining in litigation with others, among them the New York Times Company.

### *Microsoft*

Microsoft integrates generative AI across its product suite and emphasizes innovation,

efficiency, and broad access to AI tools. The company has formed partnerships with major content owners, including licensing deals with broadcasters and publishers, to address copyright concerns. Microsoft supports balanced regulatory frameworks that enable AI development while acknowledging creator rights through compensation and transparency measures.

### *Google*

Google develops large-scale AI models and argues that training on copyrighted material is essential for building accurate and useful systems. The company emphasizes fair use principles and research exemptions, while also pursuing licensing agreements with some rights holders. Google advocates for flexible policies that support AI innovation while acknowledging the need for creator compensation in certain contexts.

### *Meta*

Meta develops open-source AI models and emphasizes broad access to AI technology, often supporting flexible legal frameworks for AI training. The company argues that open models and dataset access drive innovation and democratize AI development. Meta resists overly restrictive regulations that could limit access to AI tools, while acknowledging the need for some creator protections through transparency and licensing.

## Civil Society and Public Interest Groups

### *Electronic Frontier Foundation (EFF)*

The EFF advocates for digital rights, transparency, and ethical AI governance, focusing on preventing exploitation of creators by large platforms and AI companies. The organization supports open access to knowledge while demanding safeguards for creators, labor protection, and public accountability in AI development. EFF conducts research, public campaigns, and legal advocacy to promote fair AI policies.

### *Access Now*

Access Now focuses on digital inclusion, human rights, and ethical AI governance, emphasizing the need for transparency and accountability in AI systems. The organization advocates for policies that protect vulnerable stakeholders from displacement and unfair treatment while ensuring equitable access to AI technologies. Access Now supports international cooperation and civil society engagement in AI policy development.

## Timeline of Relevant Resolutions, Treaties and Events

### Foundation of International Treaties

- Berne Convention (1886): The establishment of international copyright law based on “original works of authorship” with no registration requirement.
- World Intellectual Property Organization (WIPO): The establishment of WIPO as the administrator of the Berne Convention.
- TRIPS Agreement (1994): The creation of international copyright standards by the World Trade Organization (WTO).

### The Development of Generative AI Technology

- 1959: The coining of the term ‘machine learning’ by Arthur Samuel
- 1960s: The creation of Raytheon's Cybertron through rudimentary reinforcement learning
- 1970s: The establishment of generative process planning assisted by Harold Cohen's AARON
- 2014: The introduction of GANs by Goodfellow et al.
- 2017: The introduction of *transformer* architecture by "Attention Is All You Need"
- 2018: The release of GPT-1
- March 2020: The release of 15.ai
- 2021: The release of DALL-E
- November 2022: The public release of ChatGPT

### Policy Developments and Copyright Cases

- 2019: Stephen Thaler's registration of *A Recent Entrance to Paradise*, an artwork listing AI as its author, is denied by the Copyright Office for lack of human authorship.
- January 2023: Andersen v. Stability AI
- February 2023: Getty Images v. Stability AI
- September 2023: Authors Guild v. OpenAI
- December 2023: New York Times Co. v. Microsoft/OpenAI
- 2024: The creation of the EU AI Act, the world's first comprehensive legal framework for artificial intelligence, which will thereafter undergo phased implementation through 2025-2027. The EU AI Act bans manipulative practices, social scoring, and the untargeted scraping of biometric databases, and mandates assessments and human oversight for high-risk systems used in healthcare, critical infrastructure, and HR (CV-scanning).
- 2024: The creation of South Korea's AI Basic Act, effective 2026. The AI Basic Act mandates the clear labeling of AI-generated content, and obligates the report of implementation outcomes to the Ministry of Science and ICT (MSIT) concerning systems trained on extremely large computing resources.
- June 2026: The signing of a multi-year licensing deal with OpenAI by Getty Images, allowing Getty images to appear within ChatGPT, contrasting Getty's earlier role as a lead litigant against AI image generators.

## Evaluation of Previous Attempts to Resolve the Issue

1. Copyright Evaluation of AIGC Through Litigation

Litigation has produced fragmented, sometimes contradictory results rather than a coherent legal standard. *Thaler v. Perlmutter* permanently resolved whether non-human leadership constitutes copyright after the Supreme Court denied certiorari, but explicitly declined to address the question of AI-assisted human work. Meanwhile, whether training on copyrighted works is itself infringing, remains unsettled across parallel cases with different outcomes. *Thomson Reuters v. Ross Intelligence* rejected a fair use defense for AI training, but the

Copyright Office itself has concluded that fair use determinations will have to be made case-by-case rather than categorically.

While litigation is helpful in resolving individual disputes, producing legal clarity on the international scale is unreasonable, as litigation is nation-specific, and because cases are being decided on narrower grounds (standing, jurisdiction, trademark) that sidestep the core question of copyright.

2. Direct Licensing

The shift towards direct licensing deals (AP--OpenAI, Axel Springer--OpenAI, Getty's 2026 licensing partnership with OpenAI) suggests the market is resolving the dispute faster than courts or legislatures. While this is efficient for large, well-resourced rightsholders who can negotiate directly, it does little for individual artists and writers, and risks entrenching a system where institutional content owners get compensated while individual creators do not.

## Possible Solutions

1. Implementation of Statutory Licensing

A government-mandated licensing rate (similar to the mechanical license system in U.S. music copyright) could set a fixed, non-negotiable fee AI companies pay per unit of training data used, removing the need for case-by-case negotiation entirely. However, due to the political nature of this implementation, it may become a de facto barrier to entry that only well-capitalized firms can pay, or on the other hand, fail to meaningfully compensate creators.

2. Implementation of Standardized Watermarks or Flags

Standardized machine-readable "do not train" flags (already partially implemented via robots.txt-style signals, and more formally via emerging standards like the "TDM Reservation Protocol") could let creators exclude their work from scraping by default, requiring affirmative opt-in for inclusion. This would lessen the burden away from individual creators having to litigate, but it relies heavily on AI companies voluntarily respecting these signals, since—unlike DRM—there's no technical mechanism forcing compliance once content is publicly accessible.

3. Implementation of Content Labeling Standards

Standards like C2PA (Coalition for Content Provenance and Authenticity) allow content to carry verifiable metadata about its origin. However, content labels can easily be stripped, and they do not account for the aggregated commodification of an artist's style discussed above.

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