



## Research article

UDC 34:004:346.6:004.8:347.78

EDN: <https://elibrary.ru/xeltpk>

DOI: <https://doi.org/10.21202/jdtl.2025.24>

# Copyright Facing the Challenges of Generative Artificial Intelligence: Judicial Practice and Legislative Strategies in India, the United States and the European Union

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## Keywords

artificial intelligence,  
blockchain,  
comparative legal studies,  
copyright,  
data analysis,  
digital technologies,  
generative artificial  
intelligence,  
judicial practice,  
law,  
legal regulation

## Abstract

**Objective:** to conduct a comparative analysis of the judicial interpretation of the fair dealing and fair use doctrines in the copyright law systems of India, the United States and the European Union in the context of the challenges posed by the development of generative artificial intelligence and blockchain technologies.

**Methods:** the work uses a set of scientific methods, including a comparative legal analysis of the legislation of three jurisdictions, a systematic analysis of judicial practice in India, a dogmatic method of interpreting regulations, as well as a structural and functional approach to the study of legal institutions. Special attention was paid to over sixty years of Indian judicial practice in applying the fair dealing doctrine, to the American fair use doctrine with its four-factor test, and to the European system of legislative exceptions in text and data mining. The research methodology includes a historical and legal method for identifying evolutionary trends in the judicial interpretation of copyright exceptions, a formal legal method for analyzing the normative content of legal institutions, and a legal modeling method for developing recommendations to improve legislation for regulation of generative artificial intelligence and blockchain technologies.

**Results:** the study convincingly demonstrates the structural inconsistency of the Indian closed-list system of copyright exclusions for regulating

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generative artificial intelligence and blockchain technologies. It was established that the Indian fair dealing doctrine is characterized by five fundamental limitations: excessively literal interpretation of the legislative text, lack of a transformative use concept, inability to adapt to digital formats, legal gap in the regulation of the artificial intelligence outputs, and significantly limited application. A comparative analysis revealed that the American system reaches structural limits when regulating the large-scale use of data, whereas the European model covers the data input but not the commercialization of artificial intelligence outputs.

**Scientific novelty:** the research presents a comprehensive comparative legal analysis of the application of the fair dealing and fair use doctrines to generative artificial intelligence and blockchain technologies. The study systematizes more than sixty years of judicial practice in three legal systems, which allowed identifying the structural limitations of both open and closed models of copyright exceptions and justifying the need to comprehensively regulate full cycle of the creation and commercialization of artificial intelligence content.

**Practical significance:** the results can be used to develop national strategies for regulating artificial intelligence; reform the system of copyright exceptions; introduce technologically neutral standards for text and data mining; create disclosure mechanisms for training datasets and registers of copyright holders' opt-outs; and modernize the system of collective rights management using blockchain.

## For citation

Amith Sriram, K. S. (2025). Copyright Facing the Challenges of Generative Artificial Intelligence: Judicial Practice and Legislative Strategies in India, the United States and the European Union. *Journal of Digital Technologies and Law*, 3(4), 598–635.  
<https://doi.org/10.21202/jdtl.2025.24>

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## Introduction

We shape our tools and thereafter our tools shape us.

Marshall McLuhan

With the advent of generative artificial intelligence (GenAI), which represents a paradigm shift in both technological capabilities and normative legal frameworks, this aphorism finds new relevance (Hauck, 2021; Li, 2024; Li & Wang, 2024). GenAI is a class of artificial intelligence systems that can learn patterns from vast amounts of training data to produce novel outputs like text, images, audio, or code on their own. These systems, particularly general-purpose AI models, are self-evolving systems that increasingly mediate the creation, organization, distribution, and monetization of information. They are more than just computational tools. Although human intent shaped their design, capabilities, and applications, their social impact is currently reshaping the limits of ethical responsibility, regulatory design, and intellectual property law (Lund & Samuelson, 2024; Mohammed, 2025; Rosati, 2025a, 2025b).

Since the release of OpenAI's GPT-3 in 2020, the sophistication, scope, and impact of GenAI models have increased significantly<sup>1</sup>. From writing simple prose, these models have developed multimodal fluency in text, image, code, and audio generation. The most recent generation of foundation models, including GPT-4, Claude 3, Gemini 1.5,

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<sup>1</sup> OpenAI, GPT-3 Technical Paper. (2020). arXiv:2005.14165.

and Mistral Mixtral, exhibit advanced capabilities in software development, legal summarization, scientific reasoning, and real-time multilingual translation<sup>2</sup>. These models are currently applied in AI tutoring in international universities to court assistance in New York<sup>3</sup>. Tools like Google's AI-integrated Workspace, Adobe Firefly, and Microsoft Copilot have incorporated Gen-AI capabilities into millions of people's productivity workflows<sup>4</sup>. However, these developments have also caused significant disruptions to the established principles of intellectual property law. While producing novel outputs, GenAI uses enormous amounts of training data sets composed of text, photos, audio, and video from online sources. These datasets include creative works authored by individuals, institutions, often without any consent, attribution and regimentation of right holders<sup>5</sup>. This practice raises critical legal question regarding unauthorized reproduction and the scope of permissible use in AI training and deployments (Xie et al., 2024; Yu et al., 2023).

These concerns have already been materialized across jurisdictions including the United States, the United Kingdom, the European Union and India and gave rise to litigations, where copyright holders sued AI developers, claiming infringement in both the training and output stages of generative AI systems. In nearly every instance, the core line of defense or judicial reasoning relied on the fair use doctrine (in the United States), or statutory exceptions and limitations (in Europe and India), to justify the use of copyrighted content in training corpora (Rosati, 2025a, 2025b; Sood, 2024; Volkova, 2021). In *New York Times Co v Open AI*, *Getty Images v Stability AI*, even in *ANI v OpenAI* in India, the defendant claimed that their use to train large language models (LLMs) falls under the exceptions of Copyright Act<sup>6</sup>.

This series of litigations reveals the pivotal role that copyright exception frameworks play in the generative AI ecosystem. The United States has a flexible fair use doctrine under 17 U.S.C. § 107 that allows courts to determine whether uses of copyrighted content, like algorithmic training, are allowed based on factors like purpose, nature, amount, and market effect<sup>7</sup>. U.S courts upheld such uses in *Authors Guild v. Google Inc. Sega Enters.*

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<sup>2</sup> OpenAI, GPT-4 Technical Report. (2023). arXiv:2303.08774; Anthropic, Claude 3 Model Card. (2024).

<sup>3</sup> Microsoft, Copilot Overview. (2024); NYSBA, AI Legal Pilot. (2025); ETH Zurich & University of Tokyo, Academic AI Report. (2025).

<sup>4</sup> Microsoft, Copilot Product Overview. (2024); Adobe, Firefly White Paper. (2024).

<sup>5</sup> European Parliament. (2025, January). Generative AI and Copyright: Training, Creation, Regulation, PE 774.095 (pp. 10–13).

<sup>6</sup> *The New York Times Co. v. OpenAI*, Case No. 1:23-cv-11195 (S.D.N.Y. 2023); *Getty Images v. Stability AI*, [2023] EWHC 2333 (Ch); *ANI Media v. OpenAI*, pending before Delhi High Court. (2024).

<sup>7</sup> 17 U.S.C. § 107. (2012).

Ltd. v. Accolade, Inc., and even in recent *Bartz v. Anthropic*<sup>8</sup>. Similarly, the European Union has modernized its copyright laws with Directive (EU) 2019/790, which added distinctive text and data mining (TDM) exceptions under Articles 3 and 4 to support AI development<sup>9</sup>. However, under Section 52 of the Copyright Act, 1957, India maintains a closed-list system of exceptions that only allow fair dealing for specific uses, such as private use, research, criticism, and reporting on current events, with no recognition of TDM or AI training uses<sup>10</sup>.

Even if Gen-AI use of copyrighted content during the training phase is considered permissible, the output stage raises distinct challenges, especially when the content is created as digital artworks or deployed within distributed ledger technologies (Buick, 2025; Chauhan, 2025; Chopra, 2025; Dornis, 2025; Grodzinsky et al., 2007). GenAI outputs that closely resemble protected characters or styles can give rise to direct copyright claims, as demonstrated by recent cases such as *Disney v. Midjourney*<sup>11</sup>. These instances clearly indicate that the focus of litigation has shifted from the training phase to the nature and legality of the outputs. As generative models are more capable of replicating the distinctive elements, the evaluation of output-stage infringement is evolving from a peripheral concern to a central legal challenge. Therefore, in the GenAI era, the output stage is becoming a growing focus of copyright enforcement rather than a theoretical issue. Figure 1 below indicates this shift, showing how Midjourney's output resembles the visual identity of Disney's Elsa.



**Figure 1. Visual comparison of Midjourney's output (left) and Disney's copyrighted character Elsa (right)<sup>12</sup>**

<sup>8</sup> Authors Guild v. Google Inc., 804 F.3d 202, 219–25 (2d Cir. 2015); Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1523–27 (9th Cir. 1992); *Bartz v. Anthropic* PBC, No. 3:23-cv-05867 (N.D. Cal. filed Nov. 14, 2023).

<sup>9</sup> Directive (EU) 2019/790, arts. 3–4; see also European Parliament, Generative AI and Copyright: Training, Creation, Regulation, PE 774.095 (2025, January), at 14–18.

<sup>10</sup> The Copyright Act, 1957, § 52, No. 14, Acts of Parliament, 1957 (India).

<sup>11</sup> Disney Enters., Inc. v. Midjourney, Inc., No. 2:25-cv-05275 (C.D. Cal. filed June 11, 2025).

<sup>12</sup> The Walt Disney Co. and Universal City Studios LLC, Hollywood Strikes Back: Disney and Universal Sue AI Platform Midjourney for Copyright Infringement. (2025, June 25). Mondaq. <https://clk.ru/3Qsv3d>

This research paper argues that India's closed-list fair dealing provision lacks potential to regulate generative AI systems and blockchain-based assets. It draws on structured judicial mapping of Indian fair dealing decisions from 1959 to 2025 to identify long-term patterns in which courts have construed copyright exceptions across different technologies. This analysis demonstrates that the problem is not merely an inconsistent judicial interpretation but a statutory rigidity that limits juridical adaptability in the face of emerging technologies.

By placing this mapping within a comparative framework, the paper analyzes the more flexible U.S. fair use doctrine and the developing statutory exception regime of the European Union under the DSM Directive. While the U.S. and EU frameworks are more flexible, the study finds that both remain structurally insufficient to adequately handle the legal complexities brought about by GenAI, especially when it comes to issues like the use of large amounts of training data, attribution of generated content, and the uniqueness of outputs produced by AI. In contrast, India's exception lacks transformative or output-focused reasoning and is purpose-bound, making it even less capable of addressing these developments.

To address these challenges, this paper presents a set of context-specific reform proposals that are intended to be in line with India's unique legal system and technological environment. These proposals include opt-out procedures, statutory licensing models, and an extension of public interest-based exceptions. Given the recent establishment of an expert committee on generative AI and copyright law by the Indian government following the interim proceedings in ANI Media Pvt. Ltd. v. OpenAI Inc. (Delhi High Court, 2024)<sup>13</sup>, these proposals become even more pertinent.

Similar to Volvo's 1959 decisions to open up its three-point seatbelt patent for public use in the interest of safety<sup>14</sup>, copyright holders should consider permitting limited use of their works for AI training, with appropriate safeguards. This study suggests compensation models, such as opt-out procedures and statutory licensing, to assist India in creating a fair and modern copyright framework.

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<sup>13</sup> Government of India. (2025). Constitution of Expert Committee on Generative AI and Copyright Law, Ministry of Electronics and Information Technology (following interim proceedings in ANI Media Pvt. Ltd. v. OpenAI Inc., Delhi High Court, C.S. (COMM) 97/2024).

<sup>14</sup> Volvo Cars, The Story of the Three-Point Seat Belt. (1959).

## 1. Judicial interpretation of fair dealing in India (1959–2025)

Over 60 years of judicial interpretation of Section 52 of the Copyright Act, 1957, reveals a structurally inflexible jurisprudence. India's fair dealing exception (Section 52(1)(a)) operates on a closed-list basis, restricted to specific uses like private study, criticism, review, research, and current event reporting. This section argues that the limitations in Indian fair dealing law stem not from unpredictable judicial interpretation, but from the restrictive architecture of the statute itself. This paper highlights five major trends demonstrating the statute's incapacity to support emerging technologies, such as generative AI and blockchain-based creativity, drawing on 19 decisions rendered between 1959 and 2025 (for a detailed chronological mapping of these cases, see Table in the Appendix)<sup>15</sup>.

### 1.1. Limited scope of fair dealing and judicial restraint

Consistent judicial restraint in India is demonstrated by strict adherence to the specific categories listed in Section 52(1)(a), which essentially prevents judicial expansion into related or developing uses. The early decision in *Blackwood & Sons Ltd. v. A.N. Parasuraman*, which severely limited reproduction to private study, is a clear example of this interpretive approach<sup>16</sup>. This strict construction continued to shape later decisions, like the Delhi High Court's decisions in *Super Cassettes v. Hamar Television* and *Yashraj Films v. RK Productions*. Despite their potential informational or public interest components, the courts in both cases interpreted the term "reporting current events" so narrowly that they disregarded media such as musical interludes in talk shows and TV shows<sup>17</sup>. This collective jurisprudence highlights a judicial reluctance to infer broader legislative intent beyond the text, thus creating a statutory bottleneck for unforeseen technological applications.

The judiciary itself has acknowledged this interpretive restraint. The Court acknowledged in *NDTV v. ICC* that any extension of the particular fair dealing purposes listed in Section 52(1)(a) requires legislative authority<sup>18</sup>. Similarly, the Delhi High Court acknowledged the statute's functional limitations in *Rameshwari Photocopy*, although with some leeway for educational access.

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<sup>15</sup> For detailed case information, see Table 1 in the Appendix.

<sup>16</sup> *Blackwood & Sons Ltd. v. A.N. Parasuraman*, AIR 1959 Mad. 410 (India)

<sup>17</sup> *Super Cassettes Indus. Ltd. v. Hamar Television Network Pvt. Ltd.*, 2010 SCC OnLine Del 2402; *Yashraj Films Pvt. Ltd. v. RK Productions*, 2012 SCC OnLine Del 1112.

<sup>18</sup> *NDTV v. ICC Dev. (Int'l) Ltd.*, 2012 SCC OnLine Del 4812, para 19.

## 1.2. The lack of transformative use

The lack of a transformative use framework is a persistent gap in Indian fair dealing. While U.S. jurisprudence assesses whether a secondary use fundamentally alters the original's intent or character, Indian courts remain anchored to a narrow consideration of whether the use falls strictly within the enumerated statutory purposes. For instance, in *Civic Chandran v. Ammini Amma*, while protecting a counter play for its critical stance, the Kerala High Court framed its reasoning around ideological intent rather than transformative expression<sup>19</sup>. This narrow focus was further exemplified by the Bombay High Court in *Shemaroo Entertainment Ltd. v. News Nation*, which refused to examine whether using archival film clips in a political show served any additional purpose<sup>20</sup>. Consequently, without a transformativeness standard, Indian law cannot accommodate uses where AI systems remix or reinterpret original works to produce something substantially new (Al-Busaidi, 2024; Balganesh, 2013, 2017; Bonadio & McDonagh, 2025).

## 1.3. Lack of adaptability to evolving formats and digital platforms

Indian courts have consistently struggled to reconcile fair dealing with digital platforms and new content formats. This difficulty is exemplified by the Delhi High Court ruling in *MySpace v. Super Cassettes*, which held that the platform was accountable for user-uploaded content, disregarding algorithmic distribution as either transformative or passive<sup>21</sup>. Subsequent decisions, such as *Star India v. Piyush Agarwal* (live tweeting of cricket score) and *Tips v. Wynk Music* (streaming vs broadcasting), further reinforced a limited understanding of current licensing categories and technological equivalency, disqualifying new digital uses. Together, these decisions show how the strict statutory language hinders judges' ability to adjust to the emerging digital landscape<sup>22</sup>. Importantly, this interpretive position implies that web-hosted data that is necessary for training generative AI systems is unlikely to be deemed legally acceptable under the current fair dealing standards in India. This effectively ignores crucial platform-based data ingestion and remix models, even for non-commercial or culturally significant uses.

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<sup>19</sup> *Civic Chandran v. Ammini Amma*, 1996 SCC OnLine Ker 417; AIR 1996 Ker 291.

<sup>20</sup> *Shemaroo Ent. Ltd. v. News Nation Network Pvt. Ltd.*, 2022 SCC OnLine Bom 930.

<sup>21</sup> *MySpace Inc. v. Super Cassettes Indus. Ltd.*, 2016 SCC OnLine Del 6386.

<sup>22</sup> *Star India Pvt. Ltd. v. Piyush Agarwal*, 2013 SCC OnLine Del 1469; *Tips Indus. Ltd. v. Wynk Music Ltd.*, 2019 SCC OnLine Bom 13063, paras.

## 1.4. Silence on output-stage infringement and AI generated authorship

The issue of whether AI-generated content could be considered infringement in and of itself has not yet been directly addressed by Indian copyright jurisprudence. The Delhi High Court considered whether teaching LLMs about news articles in ANI v. OpenAI infringed copyright, but it has not yet made a decision regarding the implications for the output stage<sup>23</sup>.

When AI outputs mimic or synthesize protected styles, this silence is concerning. Courts in the United States are currently debating whether AI outputs that closely mimic or replicate copyrighted content may give rise to liability in cases like Authors Guild v. OpenAI, Tremblay v. OpenAI, and Universal Music v. Anthropic<sup>24</sup>. There is no doctrinal guidance in Indian law to differentiate between acceptable synthesis and prohibited replication. Indian courts will probably not be able to handle new issues pertaining to AI-generated art, or deepfake-style content without legislative change.

## 1.5. Limited engagement with comparative fair use doctrine

Indian courts have occasionally looked at fair use or fairness standards from other countries. For instance, the U.K. ruling in Hubbard v. Vosper and the U.S. "four-factor test" were mentioned by courts in Super Cassettes, NDTV, and Gallata Media<sup>25</sup>. However, these were only used as helpful guides, not as legally binding rules. Even in cases involving advanced technologies or international companies, Indian courts must stick to the exact wording of Section 52, as the Delhi High Court confirmed in ANI v. OpenAI.

Even though this comparative caution is in line with long-standing Indian legal principles, it actually makes the current statutory framework even more restrictive. Therefore, India's legal system runs the risk of becoming stagnant as other jurisdictions broaden the definition of fair use or enact particular exemptions for artificial intelligence, making it more difficult for the country to keep up with the latest developments in both domestic and foreign technology.

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<sup>23</sup> ANI Media Pvt. Ltd. v. OpenAI Inc., CS(COMM) 1028/2024 (Del HC, pending), interim proceedings.

<sup>24</sup> Authors Guild v. OpenAI, Inc., No. 1:23-cv-08292 (S.D.N.Y. filed Sept. 2023), Compl. Tremblay v. OpenAI, Inc., No. 4:23-cv-03223 (N.D. Cal. filed June 2023), Compl. Universal Music Publ'g Grp. v. Anthropic PBC, No. 3:23-cv-01092 (C.D. Cal. filed Oct. 2023).

<sup>25</sup> Gallata Media Pvt. Ltd. v. Union of India, 2024 SCC OnLine Del 452.

## 2. Comparative analysis of copyright exceptions in the U.S. and the EU

The structural limitations of Section 52 of the Indian Copyright Act, 1957, emphasized in the preceding analysis, make it necessary to look at how other jurisdictions have handled limitations and exceptions in the face of technological disruption. The United States and European Union offer two significant and divergent approaches regulating the relationship between copyright and innovation. The U.S. fair use doctrine, primarily judge-made and open-ended, is characterized by its adaptability and contextual balancing of interests. In contrast, the EU framework is more codified, rooted in directive-based harmonization and specific statutory exceptions, including provisions for text and data mining under Directive (EU) 2019/790<sup>26</sup>. Currently, both systems are under pressure to address the legal ambiguity surrounding blockchain-based assets and generative AI. Regarding AI training and dissemination, courts and policymakers in these jurisdictions are debating issues of scope, permissibility, and compensation with conflicting outcomes<sup>27</sup>.

By analyzing the legal reasoning, statutory developments, and emerging responses in both the U.S. and the EU, this section critically evaluates how various exception regimes are accommodating or failing to accommodate demands of the generative AI and blockchain-driven creative economy.

### 2.1. Fair use in United States

The United States' fair use doctrine, codified in 17 U.S.C. § 107, is an open-ended exception to copyright infringement that permits limited uses of copyrighted content without prior consent. It contrasts with the European Union's directive-based statutory exceptions and India's closed-list model under Section 52.

U. S. Court assesses fair use by applying a four-factor test:

- (1) the purpose and character of the use, including whether it is transformative;
- (2) the nature of the copyrighted work;
- (3) the amount and substantial portion used; and
- (4) the effect of the use upon the potential market for the original work<sup>28</sup>.

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<sup>26</sup> Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market, 2019 O.J. (L 130) 92.

<sup>27</sup> See, e.g., *Andersen v. Stability AI Ltd.*, No. 3:23-cv-00201 (N.D. Cal. filed Jan. 13, 2023); European Copyright Society, *Generative AI and Copyright Law: A Position Paper*, (Feb. 2024). <https://clck.ru/3QsxbW>

<sup>28</sup> 17 U.S.C. § 107 (2012).

Although courts consider all four factors, contemporary jurisprudence has increasingly prioritized the first one, particularly the notion of transformativeness, as central to the fair use analysis. While the four factors are statutorily enumerated, the fair use doctrine has evolved through judicial interpretation with minimal legislative intervention. The modern fair use analysis is based on the concept of transformativeness, which was explicitly stated by the U.S. Supreme Court in *Campbell v. Acuff-Rose Music, Inc.*<sup>29</sup>

Fair use has exhibited notable adaptability in responding to technological change, owing to its open-text statutory language, which affords courts the necessary interpretive latitude to assess novel uses on a case-specific basis. One of the earliest cases that demonstrates such judicial engagement was *Sony Corp. of America v. Universal City Studios, Inc.*<sup>30</sup> In it, the U.S. Supreme Court ruled that the use of videocassette recorders (VCRs) for time-shifting television broadcasts qualified as fair use. The court emphasized the value of technological innovation in the face of strict copyright enforcement and stressed that private, non-commercial copying for later viewing did not reduce the market for the original work. This reasoning was expanded by the Ninth Circuit in *Sega Enterprises Ltd. v. Accolade, Inc.*, where the court held that reverse engineering copyrighted code to gain access to unprotected functional elements constituted fair use, as it encouraged market competition and interoperability in the software sector<sup>31</sup>.

In contrast to the closed-list system, fair use's flexibility has continuously provided judges with the ability respond to evolving technologies. In *Campbell v. Acuff-Rose Music, Inc.*<sup>32</sup>, the Supreme Court identified transformativeness as the primary issue, stating that a use can be considered fair even if it is commercial as long as it adds new expression, meaning, or message. This notion of transformativeness evolved into a crucial analytical tool for evaluating new applications pertaining to software and the digital world. Similarly, in *Kelly v. Arriba Soft Corp.*, the United States Court of Appeals for the Ninth Circuit held that, a search engine's production and display of smaller "thumbnail" images amounted to highly transformative use, because it made indexing and retrieval easier, which was completely different from the expressive intent of the original photos<sup>33</sup>. This reasoning was reaffirmed in *Perfect 10, Inc. v. Amazon.com, Inc.*, where it was held that Google's creation of low-resolution thumbnail images of copyrighted photos for its search results served

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<sup>29</sup> *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

<sup>30</sup> *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 447–56 (1984).

<sup>31</sup> *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992).

<sup>32</sup> *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

<sup>33</sup> *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818–22 (9th Cir. 2003).

a novel and distinct purpose rather than reproducing the original aesthetic or commercial value of the image. Accordingly, the production and presentation of thumbnails qualified as fair use under 17 U.S.C. §107<sup>34</sup>.

Fair use doctrine continued to evolve as courts addressed increasingly complex digital use case. The Second Circuit upheld the mass digitization of millions of books for the Google Books project in Authors Guild, Inc. v. Google, Inc., concluding that displaying a small number of book excerpts and establishing a full-text searchable database was a distinctly transformative use that promoted public research and discovery without replacing the original market<sup>35</sup>. By imposing an affirmative duty on copyright holders to consider potential fair use before issuing DMCA takedown notices, the Ninth Circuit further expanded fair use protections in Lenz v. Universal Music Corp., building on this digital context and protecting legitimate user-generated content on online platforms<sup>36</sup>. The application of fair use to evolving technologies was reaffirmed in Supreme Court's decision in Google LLC v. Oracle America, Inc., where court held that Google's reimplementation of Oracle's Java API declaring code for the Android platform was revolutionary since it allowed for the creation of a completely new software environment for mobile devices<sup>37</sup>. These decisions illustrate a consistently evolving judicial approach to fair use, marked by a positive interpretation that evolves with technology and gives transformative public benefit precedence over rigid reproduction-based restrictions.

However, the emergence of generative AI and blockchain-based assets has posed unprecedented challenges, testing the scope of fair use. In Bartz v. Anthropic PBC and Kadrey v. Meta Platforms<sup>38</sup>, Inc., the Northern District Court of California for the very first time in the world determined that using copyrighted works to train large language models constituted fair use because machine learning goal and output (producing statistical models of language) are essentially different from expressive and creative objectives of the original works<sup>39</sup>. Despite these decisions, boundaries of fair use remain unsettled. A growing wave of disputes such as Silverman v. OpenAI, Inc., Tremblay v. OpenAI, Inc., Doe v. GitHub, Inc., Andersen v. Stability AI Ltd. and other pending cases continues to challenge the fair use doctrine. In each of these cases, the defendants consistently argue that their

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<sup>34</sup> Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1165–68 (9th Cir. 2007).

<sup>35</sup> Authors Guild v. Google, Inc., 804 F.3d 202, 214–25 (2d Cir. 2015).

<sup>36</sup> Lenz v. Universal Music Corp., 815 F.3d 1145, 1153–55 (9th Cir. 2016).

<sup>37</sup> Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1202–10 (2021).

<sup>38</sup> The organization is recognized as extremist, its functioning is prohibited in the territory of the Russian Federation.

<sup>39</sup> Bartz v. Anthropic PBC, No. 3:23-cv-03122, slip op. at 12–18 (N.D. Cal. June 23, 2025); Kadrey v. Meta Platforms\*, Inc., No. 3:23-cv-04744, slip op. at 8–15 (N.D. Cal. June 25, 2025). (\* The organization is recognized as extremist, its functioning is prohibited in the territory of the Russian Federation.).

systems' outputs are the product of essentially distinct computational processes rather than derivative works<sup>40</sup>.

These lawsuits focus in their initial rulings predominately on the input stage, particularly the use of copyrighted material for model training, while paying limited attention to output uses of generated content and commercialization through digital outputs. The controversy surrounding *Zarya of the Dawn*, a comic book with AI-generated illustrations, raised concerns about the potential for unapproved replication of AI-generated (and thus potentially uncopyrightable) styles or likenesses. Complaint allegations in *Andersen v. Stability AI* clearly illustrate the growing concern over output-stage uses of generative AI and the commercialization of such content<sup>41</sup>. Commercializing generated outputs transforms them into monetizable digital assets with commercial intent. When fair use arguments and analysis are framed around the input stage, the legal status of inputs and the subsequent commercialization of outputs remain unsettled.

Large-scale commercial AI training and the expressive, high-fidelity pushes fair use beyond its traditional limits. Earlier decisions such as *Sony, Sega, Google Books*, and *Oracle* showed how flexible fair use could be to new technological developments, but they were mostly limited to specific, intermediate features like allowing software interoperability, time shifting for private viewing, or developing searchable indexes and snippet displays to make information discovery easier. In contrast to the mass consumption, internalization, and recombination of creative expression, these cases involved ancillary, non-expressive uses.

Copyright has been established to control individual instances of illegal use or copying. However, generative models do not replicate recognizable works directly; instead, they extract and synthesize patterns from large datasets. As a result, conventional copyright systems designed to regulate individual reproductions find it difficult to handle this use of aggregate, pattern-based data. The emergence of so-called "commercially safe" systems, like *Getty Images*' diffusion-based AI platform and *Adobe's Firefly*, that are trained solely on licensed or owned datasets, makes this limitation clear<sup>42</sup>. Due to their avoidance of unlicensed scraping, these models are completely exempt from the usual

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<sup>40</sup> See *Silverman v. OpenAI, Inc.*, No. 3:23-cv-03416, 2023 WL 4824158 (N.D. Cal. filed July 7, 2023); *Tremblay v. OpenAI, Inc.*, No. 3:23-cv-03223, 2023 WL 4824145 (N.D. Cal. filed June 28, 2023); *Doe v. GitHub, Inc.*, No. 4:22-cv-06823, 2022 WL 16840396 (N.D. Cal. filed Nov. 3, 2022); *Andersen v. Stability AI Ltd.*, No. 3:23-cv-00201, 2023 WL 7132064 (N.D. Cal. filed Jan. 13, 2023).

<sup>41</sup> See *Andersen* complaint para (67–72); Medium, "Artificial Intelligence, NFTs & Copyright: Can AI-Generated Art be Copyrightable?" (2023, June 27).

<sup>42</sup> Weatherbed, J. (2023, May 23). Adobe Is Adding AI Image Generator Firefly to Photoshop. *The Verge*.

infringement claims. Yet they continue to produce low-cost, adaptable, and stylistically accurate products that undermine established markets and replace human creative labor. This shows that the wider structural and economic harms posed by generative AI cannot be addressed by copyright, which is intended to control specific instances of unlawful copying.

In light of aforementioned analysis, the development of U.S. fair use indicates its flexibility to technological change, from search engines and VCRs to mass digitization and software interoperability. However, generative AI pushes fair use to the very edge of its doctrinal bounds by introducing unprecedented large-scale, high-fidelity uses that internalize and recombine creative expression without direct reproduction. The inability of copyright to address the wider economic and systemic harms of generative technologies is revealed by the fact that even “commercially safe” models trained only on licensed datasets can displace human labor and disrupt creative markets without giving rise to traditional infringement claims.

Courts in the United States have evaluated the fourth factor under 17 U.S.C. § 107 (effect on the market) through the lens of direct substitution or measurable license revenue loss. Cases like *Harper & Row v. Nation Enterprises* and *American Geophysical Union v. Texaco*, clearly indicate this approach, finding market harm where unauthorized use disrupted existing licensing agreements<sup>43</sup>. However, generative AI introduces a qualitatively distinct kind of market interference. These systems absorb and recombine expressive content at scale instead of reproducing or disseminating preexisting works, which causes enormous economic displacement in the creative industries. The rise of “commercially safe” models that are only trained on licensed or proprietary datasets indicates this. Even in the absence of infringement, such models can erode demand for human-created content, exposing copyright’s inability to address systemic disruption that occurs without unauthorized copying.

While courts in cases like *Bartz v. Anthropic* have suggested that using legally obtained books for training may be considered fair use<sup>44</sup>, this reasoning avoids the issue of whether it should be acceptable to consume expressive works in large quantities and without consent just because no direct reproduction takes place. The fair use test also lacks the potential to address the compensation crisis posed by GenAI. The microscopic

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<sup>43</sup> *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 566 (1985); *Am. Geophysical Union v. Texaco Inc.*, 60 F.3d 913, 929 (2d Cir. 1994).

<sup>44</sup> *Bartz*, No. 3:23-cv-05867.

contribution of each individual work in model training makes proposals for licensing or compensation, like collective management or opt-out mechanisms, practically untenable.

A comparable challenge arises with the commercialization of generative AI outputs, especially when integrated with distributed ledger technologies, which puts additional pressure on the limits of fair use. Despite calls to expand fair use in virtual environments to foster creativity, the legal status of novel digital content remains unsettled. Policy commentary has emphasized the need for additional case law to clarify how fair use and First Amendment defenses apply to digitally distributed content<sup>45</sup>.

The limitation of fair use is even more evident in the context of generative AI. The U.S. Copyright Office has explicitly observed that the current framework is “not well-suited to address the kinds of uses at issue in generative AI training” and that “fair use was developed for individualized, case-by-case application”, making it challenging to scale to the automated, aggregate ingestion of millions of works<sup>46</sup>. Similarly, Judge Araceli Martínez-Olguín recognized the doctrinal strain imposed by GenAI in *Andersen v. Stability AI*, noting that “traditional infringement doctrines may not adequately capture the diffuse harms caused by AI training processes that do not replicate content in the conventional sense”<sup>47</sup>.

Despite its historical flexibility in adapting to emerging technologies, the fair use doctrine is now confronting the outer limits of its normative design, not due to judicial misapplication, but because it was never conceived to regulate generative processes that blur the distinction between transformation and replication at scale.

## 2.2. Copyright exceptions in the European Union

Unlike the United States open-ended fair use model, EU adheres to a closed-list, statutory model for copyright exceptions. This framework was codified in Directive 2001/29/EC (the “InfoSoc Directive”) and further updated through Directive (EU) 2019/790 (Digital Single Market Directive). A comprehensive list of permissible exclusions and limitations is provided under Article 5(1)–(3) of the InfoSoc Directive<sup>48</sup>. All exceptions are additionally subject to the three-step test outlined in Article 5(5), which states that an exception must: (i) only be applicable in specific special circumstances, (ii) not interfere

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<sup>45</sup> U.S. Copyright Office & U.S. Patent & Trademark Office, NFTs, Copyright, and Intellectual Property (2023, July).

<sup>46</sup> U.S. Copyright Office, Copyright and Artificial Intelligence: Notice of Inquiry, 88 Fed. Reg. 51389, 51391 (2023, Aug. 3).

<sup>47</sup> *Andersen v. Stability AI Ltd.*, No. 3:23-cv-00201, Transcript of Proceedings at 34 (N.D. Cal. May 3, 2024).

<sup>48</sup> Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, OJ L 167, 22.6.2001, pp. 10–19, Art. 5(1)–(3).

with the work's regular exploitation, and (iii) not unreasonably jeopardize the rights holder's legitimate interests<sup>49</sup>.

While this statutory model maintains a closed list, courts have applied three-factor test to interpret copyright exceptions and accommodate digital technologies. In *Football Association Premier League v QC Leisure*, confirming that temporary technical reproductions, including on-screen display and browser caching satisfies three-factor test, Court upheld its legality<sup>50</sup>. Similarly in hyperlinking cases like *Svensson v. Retriever Sverige AB* and *GS Media v. Sanoma Media Netherlands*, CJEU ruled that hyperlinking to publicly accessible works does not qualify as "communication to the public" when it fails to meet essential components of the three-factor test<sup>51</sup>. However, the digital uses such as text and data mining and large-scale digitization outpaced the interpretative potential; the European Commission formally recognized this short fall in its 2016 impact assessment, identifying it as a barrier to innovation and cross-border research<sup>52</sup>.

In response to this, DSM Directive was enacted, with several new mandatory exceptions such as text and data mining (TDM) (which allows computers to analyze large volumes of text and data for research or commercial use, unless right holders expressly reserved their rights)<sup>53</sup>, digital teaching (which allows educators to use copyrighted content for online and cross-broader teachings)<sup>54</sup>, and cultural heritage preservation (which allows libraries and archives to reproduce copyrighted work solely for the purpose of long term preservation)<sup>55</sup>.

Following the DSM Directive, the European Union passed the Artificial Intelligence Act in response to the rapid growth of generative AI technologies, especially to address the large language models' (LLMs') complex output production capabilities<sup>56</sup>. This act mandates the providers of general-purpose AI (GPAI) models to adopt a copyright compliance policy and to publish detailed summaries of training data, specifically identifying any rights-holder opt-outs<sup>57</sup>. In Recital 105, the Act clarifies that training an AI model using copyrighted

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<sup>49</sup> Ibid, Art. 5(5).

<sup>50</sup> *Football Ass'n Premier League v. QC Leisure*, Case C-403/08, 2011 E.C.R. I-9079.

<sup>51</sup> *Svensson v. Retriever Sverige AB*, Case C-466/12, 2014 E.C.R. I-0000; *GS Media v. Sanoma Media Netherlands*, Case C-160/15, 2016 E.C.R. I-0000.

<sup>52</sup> Commission Staff Working Document, Impact Assessment on the Modernisation of EU Copyright Rules, SWD (2016) 301 final (Sept. 14, 2016).

<sup>53</sup> Directive (EU) 2019/790, Articles 3–4, on copyright and related rights in the Digital Single Market, OJ L 130, 17.5.2019, pp. 92–125.

<sup>54</sup> Ibid, Article 5.

<sup>55</sup> Ibid, Article 6

<sup>56</sup> Waem, H., & Deircan, M. (2023, Nov. 13). A Deeper Look into the EU AI Act Trilogues: Fundamental Rights Impact Assessments, Generative AI and a European AI Office. Kluwer Competition Blog. <https://clck.ru/3Qsxe4>

<sup>57</sup> Artificial Intelligence Act (Regulation 2024/1689), art. 53(5); Directive (EU) 2019/790, art. 4(3), on copyright and related rights in the Digital Single Market, OJ L 130, 17.5.2019, pp. 92–125.

material, even outside the EU, must comply with TDM rules, and that silence from rights holders does not equal consent<sup>58</sup>. These transparent obligations enable AI developers to establish lawful reliance on the TDM exception in court, thereby reinforcing it as a viable legal defense.

As of July 2025, the Court of Justice of the European Union (CJEU) has not made a decision that specifically addresses whether generative AI systems' output or training phases are protected by Articles 3 or 4 of the DSM Directive. A conclusive court interpretation is still pending, despite the pending case like *Company v. Google Ireland*<sup>59</sup>. Despite these legislative developments in EU, the TDM exceptions outlined in Articles 3 and 4 of the DSM Directive remain limited in their applicability to generative AI<sup>60</sup>. A closer analysis of the legal framework indicates these clauses were not intended for the broad and expressive characteristics of general-purpose AI models, but rather for specific, limited-use cases, mainly data analytics for scientific research and low-risk commercial applications. While Article 3 focuses on non-commercial scientific research, Article 4 allows limited commercial uses with tight restrictions. The opt-out mechanism allows right holders to exclude their work from being used by deploying "machine-readable means," signals such as robots.txt. In practice, this means the publicly available content cannot be lawfully used for training generative AI if right holders have issued such exclusions. The output stage of generative AI, or the reuse, replication, or public dissemination of AI-generated content derived from copyrighted materials, is not expressly permitted or regulated by any corresponding exception under EU law.

These exceptions fail to address the issues of outputs; the scope of these exceptions is limited to input stage of AI development, which is the ingestion and analysis of datasets. In addition to being analytical tools, generative models are made to internalize patterns, replicate style, and produce high-fidelity content that frequently mimics expressive aspects of works protected by copyright. This limitation is evident in several cases. Stability AI's Stable Diffusion and OpenAI's DALL-E have generated outputs that closely mimic the visual styles of copyrighted artists, including Greg Rutkowski, whose name was commonly used in image-generation prompts. These results are not ambiguous derivatives; rather, they frequently mimic unique visual characteristics that are essential to the original works'

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<sup>58</sup> Artificial Intelligence Act (Regulation 2024/1689), Recital 105.

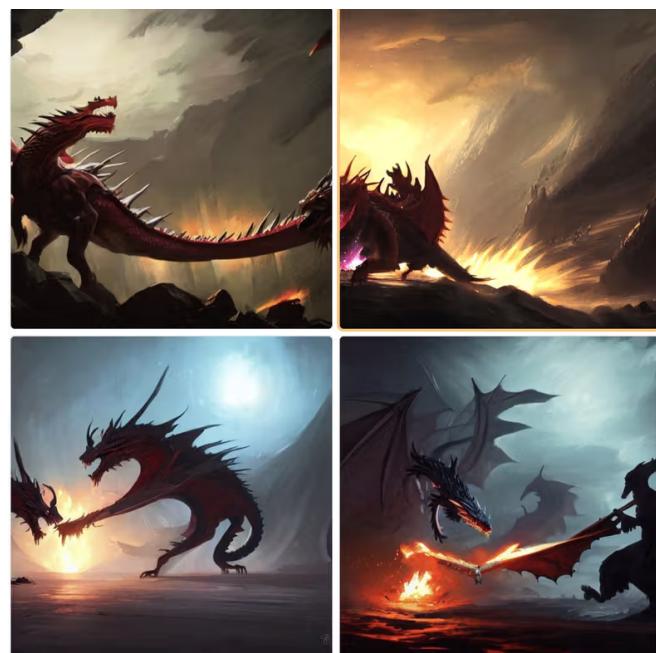
<sup>59</sup> Like *Company v. Google Ireland*, Case C-250/25, request for preliminary ruling from Fővárosi Törvényszék (Budapest Metropolitan Court), filed Apr. 2025; see also "CJEU to Rule on AI and Copyright in Landmark Case Against Google," Stephenson Harwood Technology Insight (2025, Apr.). <https://clck.ru/3Qsvhr>

<sup>60</sup> Directive (EU) 2019/790, arts. 3–4; European Copyright Society, Generative AI and Copyright: Training, Creation, Regulation, PE 774.095 (2025, Jan.), at 22–23.

identity. Figures 2 and 3 below show how a prompt that invokes Rutkowski's style produces visual outputs that closely resemble the aesthetic qualities of his original works<sup>61</sup>.



**Figure 2.** Original artwork by Greg Rutkowski: this picture exemplifies Rutkowski's unique aesthetics, which is distinguished by dramatic lighting, dynamic fantasy compositions, and fine texture details



**Figure 3.** Image produced by AI "in the style of Greg Rutkowski". A text prompt that specifically invoked Rutkowski's name in a generative model (such as Stable Diffusion) produced this image.

Such uses raises concerns about the originality, expressive appropriation, and the boundaries of copyright exceptions. The DSM Directive does not clarify whether such outputs fall within the scope of permissible use, leaving a significant regulatory gap and exposing developers and downstream users to infringement risks.

<sup>61</sup> Rutkowski, G. (2022). Fantasy Artwork, Sideshow Blog. <https://clck.ru/3QsxmM>; Lexica, AI-generated Image in the Style of Greg Rutkowski. <https://clck.ru/3Qsvna>

This ambiguity extends to the ethos of AI-generated content, particularly when using distributed ledger technologies. Following complaints by European artists regarding the commercial utilization of their artistic styles roughly generated without authorization, The European Union Intellectual Property Office (EUIPO) noted increasing concern over the unauthorized use of artistic style in AI-generated content. While developers and markets have used the exceptions for text and data mining (TDM) extensions through Articles 3 and 4 of the Directive on Copyright in the Digital Single Market (DSM Directive) to endorse upstream data uses, the exceptions were simply never intended to be extended to fixation, public communication, and distribution of outputs, for example, digital artworks or AI-rendered visual media<sup>62</sup>. These uses might fall outside of typical TDM expectations, because the creation and effects likely interfere with the regular use of the underlying work and would cause degrees of harm under the third prong of the international three-factor test. Moreover, more recent decisions in Europe determined that fair-dealing-type defenses do not extend to using AI to duplicate a visual work of art and then distributing it, as this is itself held to be illegal public communication and reproduction<sup>63</sup>. Lastly, the commercialization of AI-generated and recontextualized content on blockchain platforms emphasizes an important disparity between the closed-list, input-based exceptions under the EU and the life cycle of generating content with generative AI and blockchain. Such commercialization introduces a kind of public dissemination and economic fixation beyond what is permitted under the DSM's TDM regime.

In addition to the DSM Directive, the AI Act (Regulation (EU) 2024/1689) imposes binding obligations on general purpose AI providers (GPAI), particularly concerning technical compliance, transparency, and documentation, especially with regard to machine-readable opt-out signals such as those found in robots.txt files<sup>64</sup>. These statutory obligations are reinforced by recent soft-law documents. In July 2025, the European Commission published the General-Purpose AI Code of Practice. It is non-binding but directs GPAI providers to minimize memorization risks, refrain from scraping from piracy domains, and set up easily accessible channels for right holders

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<sup>62</sup> European Writers' Council et al., Joint Letter to the European Parliament: Protecting the Rights of Creators and Artists vs Generative AI (2025, June 19). <https://clk.ru/3Qsvsf>; European Union Intellectual Property Office, Development of Generative Artificial Intelligence from a Copyright Perspective (2025). <https://clk.ru/3Qsvtw>

<sup>63</sup> Punto FA S.L. v. VEGAP, Juzgado Mercantil No. 11 de Barcelona, Judgment No. 102/2024 (2024, Apr. 3) (Spain).

<sup>64</sup> Regulation 2024/1689 of the European Parliament and of the Council of 13 June 2024 on Artificial Intelligence (AI Act), 2024 O.J. (L 213) 1, arts. 50, rec. 133–137.

to file complaints<sup>65</sup>. Since its publication, the Code of Practice has been endorsed and is being operationalized by several GPAI developers including OpenAI, Microsoft, Alphabet (Google), Anthropic, and Mistral<sup>66</sup>.

Subsequently, pursuant to Article 53(1)(d) of the AI Act, the Commission published a mandatory disclosure template. This enforceable document requires GPAI providers to make structured summaries of their training data available to the public kinds and sources of information utilized, if any DSM Directive Article 4 opt-outs were respected, and additional metadata necessary for copyright accountability<sup>67</sup>.

Additionally, as stated in Article 50 and Recitals 133–137 of the AI Act, it requires that watermarking be used for synthetic content. These tools work together to offer an operational compliance framework that improves the enforceability of the few exceptions allowed by the DSM Directive, particularly with regard to text and data mining (TDM).

However, these obligations are procedural rather than substantive; they govern how legal activities must be carried out but do not allow for unlawful uses<sup>68</sup>. Acts of text and data mining that are not covered by Articles 3 and 4 of the DSM Directive cannot be retrospectively validated by compliance with transparency duties or datasets documentation. Notably, rights holders can use machine-readable opt-outs to exclude their works under Article 4(3). Even complete compliance with the AI Act or the General-Purpose AI Code of Practice does not permit the use of those works for training in cases where such exclusions are applicable.

The three-step test codified in Article 5(5) of the InfoSoc Directive continues to shape the structure of EU copyright law<sup>69</sup>. While it serves as a safeguard to guarantee that copyright exceptions are applied narrowly, the test's structure is not capable of addressing high-volume expressive AI-outputs. In instances where AI systems consume millions of diverse works at scale, without focusing on any specific genre or rights holder group, it is challenging to meet the requirement that exceptions only apply to certain special

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<sup>65</sup> European Commission, General-Purpose AI Code of Practice (2025, July 10). <https://clk.ru/3QsxnW>

<sup>66</sup> Anthropic, Anthropic Signs EU Code of Practice on General Purpose AI, (July 10, 2025). <https://clk.ru/3Qsvyx>; The Indian Express, Microsoft Likely to Sign EU AI Code of Practice, Meta Rebuffs Guidelines. (2025, July 12). (\* The organization is recognized as extremist, its functioning is prohibited in the territory of the Russian Federation). <https://clk.ru/3QsxoG>

<sup>67</sup> European Commission, Explanatory Notice and Template for the Public Summary of Training Content Required by Article 53(1)(d) of Regulation (EU) 2024/1689, C(2025) 5235 final (2025, July 24).

<sup>68</sup> Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market (DSM Directive), 2019 O.J. (L 130) 92, art. 4(3).

<sup>69</sup> Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society (InfoSoc Directive), art. 5(5), 2001 O.J. (L 167) 10.

cases. Additionally, the lack of remuneration or attribution to rights holders creates an imbalance that may “unreasonably prejudice” their legitimate interests.

Therefore, while the EU copyright framework has made great progress in modernizing, it is still insufficient to control the full spectrum of generative AI activities, especially when it comes to output-stage uses. As affirmed in 2025 European Parliament study, the current system of exceptions, including those under the DSM Directive, was not designed to support the expressive replication and autonomous content generation features of general-purpose AI models.<sup>70</sup>

### 2.3. Observation

Upon comparing the copyright exception in the US and the EU, it is evident that both countries have taken action to address the changing relationship between copyright and emerging technologies; however, neither framework has provided a comprehensive or proactive solution. Courts can evaluate cases individually under the U.S. fair use model, which gives it the adaptability to emerging technologies. However, this adaptability frequently leads to unpredictable outcomes. It is still unclear how far such use can go, as demonstrated by generative AI cases, particularly when AI-generated content is used in commercial settings or closely resembles original human works. The European Union, in contrast, has a rule-based framework with well-defined exceptions. Although it is a step forward, its more recent provisions, especially those that permit text and data mining, remain narrowly focused. These regulations primarily deal with the training of AI systems, but they fall short in addressing the content that these systems generate or how that content might be made profitable, for example, by using distributed ledger technologies or other digital commercialization avenues.

Therefore, it is evident that the conflict between preserving copyright holders and permitting innovation has not been entirely resolved by either system. Each model has advantages, but given the speed and scope of technological advancement, it also has apparent limitations. These findings merit serious consideration by jurisdictions such as India, where similar normative tensions are beginning to surface but have yet to be meaningfully addressed in either statute or jurisprudence.

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<sup>70</sup> European Parliament, Policy Dept. for Just., Civ. Liberties & Institutional Affs., Generative AI and Copyright: Training, Creation, Regulation, PE 774.095, at 159–60 (2025, July).

### 3. Comparative overview of copyright exceptions in India, the United States, and the European Union

The preceding sections have traced the interpretation and application of copyright exceptions across three major jurisdictions. The following table emphasizes structural characteristics, technological flexibility, and the changing role of legislatures and courts in resolving copyright issues brought on by blockchain and artificial intelligence:

Country	Legal Basis	Interpretation	Judicial Engagement	Legislative Responses	Licensing Framework	Adaptability to Emerging Tech
India	Closed-list (Sec. 52, Copyright Act, 1957)	Narrow, text-bound; limited fair dealing	No rulings on GenAI, TDM, NFTs; OpenAI v. ANI pending	Digital India Act in draft; DPIIT copyright review inconclusive; no roadmap	No licensing scheme; no collective rights model	Structurally rigid; fails to address GenAI or tokenized works
USA	Open-ended (17 U.S.C. § 107 – Fair Use)	Flexible, precedent-led; tech-adaptive	Courts ruled on NFTs (Miramax, Dash); GenAI (Bartz, Kadrey, Thaler)	GenAI Disclosure Act (2024), AI Accountability Act (2025); Copyright Office guidance (2023–25)	Fragmented, voluntary market emerging; no statutory scheme	Adaptive via courts; no unified GenAI/ Digital outputs legal framework
EU	Closed-list (InfoSoc, DSM Directives)	Institutional/national court-led	CJEU & LAION (TDM); GenAI referral pending; Juventus (NFTs)	DSM TDM exceptions; AI Act (2024); GPAI Code of Practice & Article 53(1) (d) disclosures	No structured licensing regime; provenance-focused compliance	Input-stage focused; no output-stage/NFT-specific copyright coverage

### 4. Results and recommendations on reforming the fair dealing regime

As the comparative analysis demonstrates, India's copyright system continues to be the least adaptable to new technologies. In contrast to the EU's closed-list model backed by specific reforms and the precedent-driven fair use doctrine in the United States, India's fair dealing regime under Section 52 of the Copyright Act, 1957, has not evolved to address generative AI or digital content generated and commercialized through new technologies. No judicial interpretation has clarified the application of copyright to AI-generated, except for on-going OpenAI v. ANI case. No specific amendments have followed despite the Ministry of Electronics and Information Technology and the Parliamentary Standing Committee on Commerce acknowledging the need for legislative reform<sup>71</sup>. In response to recent litigation, the Department for Promotion of Industry and

<sup>71</sup> Parliamentary Standing Committee on Commerce. (2021, July). Review of Intellectual Property Rights Regime in India; Meit, Y. (2021). National Strategy on Blockchain.

Internal Trade (DPIIT) has started a review process; however, there is currently no formal legislative roadmap<sup>72</sup>.

By applying judicial mapping and comparative analysis, this study has demonstrated that India's Section 52 fair dealing framework is structurally inadequate to handle the complexity brought about by GenAI and existing framework does not even provide rights holders opt-out rights or exceptions for text and data mining (TDM), which are critical to regulate GenAI. These shortcomings are not merely theoretical; they carry substantial economic implications. According to NASSCOM, by 2035, GenAI will contribute USD 957 billion to India's GDP, or more than 15% of the country's gross value added,<sup>73</sup> and the adoption of AI may also result in a short-term 2.5% increase in GDP<sup>74</sup>.

The recent constitution of an expert committee on generative AI and copyright by the Indian government provides a timely opportunity to integrate the below mentioned reforms. The following section offers targeted recommendations to reform the scope and application of fair dealing, in the light of the complex realities of generative AI and blockchain-based content creation.

#### 4.1. Foundational reform of Section 52

The Indian government has repeatedly acknowledged its intention to modernize the Copyright Act, 1957, through official policy instruments (Parliamentary Standing Committee Report (2021), MeitY's 2024 advisory on AI governance, and the recent committee formation following the OpenAI litigation)<sup>75</sup>. However, this legislative intent has not resulted in actual statutory reform.

The effective modernization of India's copyright regime must commence with a foundational reform of Section 52 of the Copyright Act, 1957, particularly its provisions concerning fair dealing. As demonstrated in Section 3 of this paper, the development of fair dealing jurisprudence is limited by the strict, comprehensive structure of Section 52, not by judicial inconsistency. As seen in Oxford University Press (2008), Civic Chandran (1996), ESPN Software (2008), and Shemaroo Entertainment Ltd. (2022), the existing provision restricts judicial discretion and leads to fact-specific, profit-driven decisions, by failing to define key terms like "reporting," "instruction," and "criticism and review," and by providing no guidance on acceptable reproduction thresholds<sup>76</sup>. This legislative obsolescence has

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<sup>72</sup> DPIIT. (2025, Apr. 28). Constitution of Committee on AI and Copyright.

<sup>73</sup> NASSCOM. (2024). The Economic Potential of Generative AI in India, at 6.

<sup>74</sup> Ibid.

<sup>75</sup> Ibid.

<sup>76</sup> See case mapping and judicial analysis in Section 2.

led courts to decide that modern content formats such as chat shows on television do not qualify for protections due to conceptual inconsistency with the language of the statute, thereby leaving the status of AI-generated outputs similarly uncertain. As such, in order to reflect modern forms of content creation and consumption, such as text and data mining, AI training, and digital reuse, Section 52 needs to be reorganized to incorporate precisely defined, technologically relevant exceptions.

#### 4.2. Integrating comparative lessons

Building on the necessity of defining key terms in Section 52, a comparative analysis of the European Union's statutory exception framework and the US fair use doctrine yields a second important recommendation for India's copyright reform. For interpretive guidance, Indian courts have occasionally referred to foreign jurisprudence. Courts made implicit references to the U.S. four-factor fair use test in *ESPN Software* (2008) and *Yashraj Films v. India TV* (2012), while the three-step test included in the EU's InfoSoc Directive was used in *Super Cassettes v. Hamar TV Network* (2010). However, as the judicial mapping clarifies, these comparative borrowings have frequently served more as rhetorical support than as substantive legal reasoning; they have been used cautiously when statutory ambiguity is allowed<sup>77</sup>.

Despite three distinct approaches to copyright exceptions, the U.S and EU frameworks face substantial limitations when applied to generative AI and blockchain-based assets. In this paper, Section 3 "Comparative overview of copyright exceptions in India, the United States, and the European Union" demonstrates that fair use doctrine struggles to accommodate high-fidelity outputs and systemic economic disruption, while the EU's TDM exceptions and three-step test remain input-focused and lack the potential to regulate commercial AI outputs<sup>78</sup>. India currently lacks dedicated TDM exceptions. Section 52 of Copyright Act, 1957 fair dealing provision in India does not offer certainty for large-scale automated data analysis such as text and data mining and commercially motivated uses. However, recent developments indicate that TDM and related reforms is under consideration<sup>79</sup>.

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<sup>77</sup> See judicial analysis in Section 2. (referencing *ESPN Software India Pvt. Ltd.*, *Yashraj Films Pvt. Ltd.*, *Super Cassettes Industries Ltd.*, *NDTV Ltd.*, *ANI Media Pvt. Ltd.*, and *Galatta Media Pvt. Ltd.*).

<sup>78</sup> Ibid.

<sup>79</sup> India's Copyright Law and Artificial Intelligence: Time for a Rethink, Maheshwari & Co. (2025, Apr.). <https://clck.ru/3QswPX>; Balancing Innovation & Rights: A Copyright Policy Proposal for AI Training in India, IIPRD (2025, Apr.). <https://clck.ru/3QswNf>

To ensure Indian copyright law continues to uphold both the creator's rights and foster innovation, India must create a specific, technology-neutral exception for data and text mining. A clause must be added as a new clause under Section 52. It should specifically permit automated tools to replicate and extract copyrighted content for computational analysis, including machine learning system deployment, testing, and training. The statutory wording should also make it clear that such actions shall not be considered infringement if (a) the user has legal access to the underlying content and (b) the output produced, in any format, is not a direct reproduction of the protected expression or does not violate other specific copyright limitations.

In India, a model that is input-only and narrowly drafted, like the EU DSM Directive, would be ineffective, as Lucchi (2025) points out in his analysis for the European Parliament. The European Union's TDM framework has proven structurally incapable to control generative outputs that imitate style or turn datasets into expressive content<sup>80</sup>. Unlike Article 4 of DSM, which is incompatible with decentralized technologies<sup>81</sup>, India's TDM exception should be forward-thinking and output-conscious. It must offer legal certainty for data ingestion and use in AI system development, as well as for the legitimate distribution of AI system outputs, in other commercial digital forms.

Instead of frequently relying on the fair use principle developed under U.S copyright law, India should pursue a statutory approach that emphasizes legislative clarity without sacrificing technological flexibility. As seen in Section 2.1 "Fair use in the United States", the open-ended nature of fair use has proven flexible but structurally inadequate when applied to generative technologies that operate through large scale ingestion<sup>82</sup>. As such, India should adopt a purpose-based statutory exception that expressly permits the use and reproduction of copyrighted works for computational applications, including information analysis, model evaluation, and machine learning, as long as (a) the use is not meant for the primary consumption or enjoyment of the content itself, and (b) the outputs do not amount to direct reproduction of protected expression. As long as the user has legal access, such a model can allow legitimate TDM for all subjects and for all uses, including commercial and legitimate digital use. This approach reduces the reliance on case-by-case judicial balancing and minimizes interpretive uncertainty.

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<sup>80</sup> European Parliament, *supra* note 12 6 at 22–25.

<sup>81</sup> Chauhan, K. (2025). Text and Data Mining Under Indian Copyright Law: Need for Reform. *J. Intell. Prop. Rts.*, 30(1), 8–9.

<sup>82</sup> See 2.1 Fair use In U.S

### 4.3. Enhancing legal accountability in generative AI through training data disclosure

India's existing regulatory approach to artificial intelligence (AI) remains largely concerned with controlling the results of AI systems, especially with regard to the distribution and labeling of AI-generated content. The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, which impose due diligence obligations on online platforms to moderate harmful or misleading outputs, and the 2024 MeitY Advisory on Responsible AI, which requires the labeling of synthetic content, are recent policy instruments that reflect this approach<sup>83</sup>. While these measures address issues such as misinformation, electoral interference, and reputation harm, they do not meaningfully regulate the input-side of AI, particularly the use of copyrighted or sensitive data during model training. Recent policy documents, including the Press Information Bureau's 2023 National Strategy for Artificial Intelligence and the 2024 MeitY Advisory, highlight the importance of accountability, transparency, and equity. However, they fail to consider the ethical and legal ramifications of data collection methods used during the model-training phase<sup>84</sup>.

While copyright exceptions in the EU and U.S. face challenges in addressing generative AI, legislative frameworks, especially in European Union, have started to take a more direct approach to the creation and training of AI models. India's approach to AI regulation needs to evolve beyond existing limitations. India must adopt mandatory disclosures for AI developers, particularly with regard to the generative model training datasets. These requirements need to be similar to the EU AI Act's Article 53(1)(d), which requires developers of general-purpose AI (GPAI) to publish structured summaries of the sources of their training data,<sup>85</sup> and U.S. proposals such as the Generative AI Copyright Disclosure Act (2024), which aims for similar transparency regarding copyrighted works<sup>86</sup>. Given

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<sup>83</sup> Ministry of Electronics and Information Technology (MeitY), Advisory for Responsible Use of Artificial Intelligence, 2024 [hereinafter MeitY Advisory]; Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, G.S.R. 139(E) (Feb. 25, 2021), amended by G.S.R. 228(E) (2023, Apr. 6).

<sup>84</sup> Press Information Bureau. National Strategy for Artificial Intelligence, 2023.

<sup>85</sup> Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act), art. 53(1)(d), 2024 O.J. (L 1689) 1; see also Explanatory Notice and Template for the Public Summary of Training Content for GPAI Models, European Commission, C(2025) 5235 (approved 24 July 2025), described by commentators as introducing mandatory template-based data summaries under Article 53(1)(d).

<sup>86</sup> Accountability and Personal Data Protection Act, S. 2367, 119th Cong. § 3 (2025) (introduced July 21, 2025).

the limitations in the Information Technology Act, 2000, such disclosure rules could be introduced as part of a future omnibus Digital India Act<sup>87</sup>.

The General-Purpose AI Code of Practice in EU, which is not legally binding, provides a useful model for best practices in sourcing datasets, stopping illegal copying, setting up complaint procedures, and guaranteeing accountability<sup>88</sup>. MeitY and the Department for Promotion of Industry and Internal Trade (DPIIT) could work together to create a comparable Code adapted to India's particular legal and technological environment and imposing auditability requirements for developers utilizing sizable datasets that contain user-generated or copyrighted content, much like the record-keeping requirements outlined in Articles 10 and 53 of the EU AI Act<sup>89</sup>.

#### 4.4. Remuneration based model

In addition to controlling AI outputs and enhancing training data transparency, a forward-thinking licensing framework is necessary to ensure that authors receive fair compensation for their creations when they are incorporated into generative AI systems. However, the absence of a functional licensing market for AI training data in India poses a structural barrier for equitable remuneration<sup>90</sup>. MEP Axel Voss's 2025 draft report on Copyright and Generative AI, which suggests a temporary compensation mechanism whereby general-purpose AI (GPAI) developers pay a 5–7% levy on their global revenues, is the first step in this direction taken by the European Union<sup>91</sup>. By providing rights holders with instant compensation without presenting it as a "global license," this model aims to address the absence of a licensing market. India could adopt this model by instituting a statutory compensation plan for major AI developers, with licensing and distribution management handled by the Copyright

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<sup>87</sup> Phillips, P., & Avasarala, S. (2023, Mar. 27). Digital India Act: Evolving Clarity & Challenges (Lakshmikumaran & Sridharan Attorneys). (discussing how the Digital India Act has been proposed to overhaul the IT Act and establish a standardized, future-proof digital governance regime).

<sup>88</sup> European Commission. (2025, July 10). General-Purpose AI Code of Practice. covering transparency, copyright, and safety obligations for providers of general-purpose AI models under the EU AI Act; see also EU Code of Practice helps industry comply with AI Act rules on general-purpose AI models, press release (2025, July 11).

<sup>89</sup> Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 March 2024 Laying Down Harmonised Rules on Artificial Intelligence (AI Act), arts. 10, 53, 2024 O.J. (L 230) 1 (EU) (on data governance and transparency obligations for general-purpose AI models).

<sup>90</sup> IIPRD, Balancing Innovation & Rights: A Copyright Policy Proposal for AI Training in India (2024, Sept. 4). (noting that "individual licensing for AI training data is impractical"). <https://clck.ru/3Qsy58>

<sup>91</sup> European Parliament. (2025, 10 July). Draft Report on Copyright and Generative AI, Rapporteur Axel Voss, Committee on Legal Affairs (JURI), at 5–7.

Office or another designated organization. Similar to Article 53(1)(d) of the EU AI Act, a rebuttable presumption that copyright-protected works have been used in training could improve legal enforceability unless developers provide structured disclosures of their data sources. This would encourage transparency and lessen the evidentiary burden on creators.

#### 4.5. Blockchain technology for accountability and licensing in generative AI

To ensure accountability, fair remuneration, and enforceability of the suggested reforms establishing a technology infrastructure that can facilitate transparent licensing, data provenance, and automated rights management is equally important. Blockchain technology has the potential to address the same, by creating unchangeable records of training inputs, licensing terms, and output provenance; it can improve accountability, transparency, and compensation throughout the generative AI life cycle. Smart contracts can automate licensing and compensation through a blockchain-based registry of training datasets, guaranteeing that authors receive payment when their creations are utilized to build models or produce derivative outputs. For example, copyright metadata can be embedded in hashed dataset logs and verifiable blockchain-based licenses, allowing developers to reveal inputs and initiating automatic payments upon commercialization of outputs<sup>92</sup>. This approach aligns with proposal in EU, where blockchain is being investigated for provenance tracking, licensing under the AI Act, and copyright modernization initiatives<sup>93</sup>. It directly addresses the limitations of conventional copyright enforcement, which remains ineffective and retroactive in digital settings where large-scale training of generative AI models occurs without sufficient transparency or licensing frameworks. To enforce dataset disclosures, monitor model usage, and implement statutory compensation schemes in India, the Copyright Office or MeitY could combine blockchain-backed systems with the proposed Digital India Act. This would ensure compliance through clear, tamper proof audit trails<sup>94</sup>.

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<sup>92</sup> Lai, T., & De Filippi, P. (2025, Jan. 31). A Collaborative Effort to Design and Promote Blockchain-Based IP Tools and Standards for Rightful Generative AI, Medium.

<sup>93</sup> European Parliament. (2025, July). Generative AI and Copyright: Training, Creation, Regulation, Policy Dept. for Legal Affairs, PE 774.095, at 22–26.

<sup>94</sup> Mishra, T. (2025, June 3). Reversing the Opt-Out Burden: Why AI Firms Should Bear Licensing Obligations for Training Data, SpicyIP. <https://spicyip.com>

## Conclusions

The analysis showed that generative AI and blockchain-based creative systems expose deep structural gaps in existing copyright frameworks, especially in India. While courts in multiple jurisdictions are already struggling with cases like *Getty Images v. Stability AI*, *Bartz v. Anthropic*, and *ANI v. OpenAI*, India's closed-list fair dealing model and the architecture of Section 52 of the 1957 Act leave judges with even fewer doctrinal tools than their counterparts in the United States or European Union. A comparison with the U.S. fair use doctrine and the EU's text and data mining exceptions demonstrates that Indian law is currently ill equipped to deal with either the training phase of GenAI systems or the attribution and exploitation of their outputs. Against this backdrop, the paper's proposals (introducing tailored TDM exceptions, optout mechanisms, statutory licensing for training datasets, and blockchain-based accountability) are not merely desirable but necessary preconditions for a workable GenAI copyright settlement in India. These reforms align with, and should inform, the work of the expert committee on generative AI and copyright established by the Indian government in 2025, offering a concrete legislative roadmap for reconciling technological innovation with the protection of creative labor.

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## Appendix

## Chronological mapping of Indian fair dealing cases (1959–2025)

No.	Case Name & Citation	Year	Key Legal Issue(s)	Judicial Interpretation of Fair Dealing	Critical Observation	Relevance to Emerging Technologies
1	Blackwood and Sons Ltd. v. A.N. Parasuraman	1959	Unauthorized reproduction of textbooks for educational use	Educational purpose acknowledged, but fair dealing narrowly applied; no foreign comparative references adopted	Early judicial restraint; protection of commercial interests even in academic use; no willingness to evolve fair dealing via international influence	Offers little flexibility for AI/ML or TDM exceptions in academic or non-commercial contexts
2	Shyam Lal Paharia v. Gaya Prasad Gupta, AIR 1971 All 192	1970	Copying of a compilation with partially original and partially copied content	Recognized infringement even though some portions were original; protection seemed to hinge on labor and effort	Reflects "sweat of brow" approach; effort-based originality doctrine dominant; lacks modern creative threshold	Reliance on effort over creativity misaligns with AI outputs where reproduction is not tied to human labor
3	V. Ramaiah v. K. Lakshmaiah	1988	Use of textbook content in a guidebook	Emphasized educational use and proportionality; accepted fair dealing as defense	Set precedent for proportionality, but gave vague guidance on what counts as "independent contribution"	No clarity on threshold for transformative use or independent input, relevant for generative remixing or summarization tools
4	Civic Chandran v. Ammini Amma, AIR 1996 Ker 291	1996	Use of prior drama in a counter-drama with criticism	Court adopted activist approach; invoked transformative purpose and fairness; avoided rigid quantitative tests	Progressive turn; relied on UK judgment (Hubbard v. Vosper); qualitative fairness; restraint in not setting rigid rules	Closest early adoption of transformative use; yet lack of codification makes it fragile for AI/deep remix culture
5	Eastern Book Co. v. D.B. Modak, (2008) 1 SCC 1	2008	Originality of headnotes and editorial contributions	Adopted "minimal creativity" standard; used Canadian and UK precedents; cautious fair dealing	Shows willingness to adopt global doctrine, but limited support in Indian law; weak transformative framework	Inconsistent guidance for algorithmic summaries, annotations, or AI-edited material
6	Oxford Univ. Press v. Narendra Publishing House	2008	Reproduction of educational content in guides	Liberal interpretation of fair dealing; invoked U.S. transformative use; ignored market harm	Progressive, but structurally weak due to absence of statutory transformative test; dismissive of economic impact	Courts inclined toward AI-enabling logic, but lack clarity on how much transformation suffices
7	ESPN Software India v. T.V. Today Network	2008	Use of sports footage in news	Applied four-factor fair use test implicitly; rejected fixed time benchmarks; prioritized market harm	Acknowledges foreign doctrines; courts rely on context-specific factors; inconsistencies remain	Highlights risk of judicial borrowing without harmonization; key for AI video summarizers, remixers

8	Cambridge Univ. Press v. B.D. Bhandari	2009	Use of grammar exercises and model answers in student books	Held use fell under fair dealing; invoked transformative use; no standard defined for "extent"	Permits extensive copying without clarity; undermines predictability in education-related AI training	Ambiguity can complicate AI datasets that rely on textbook or exam-content reuse
9	Super Cassettes v. Hamar TV Network	2010	Use of songs in news/reporting programs	Rejected transformative use; followed Berne/ TRIPS 3-step test; stressed substantiality	Rigid interpretation; restrained from recognizing evolving uses; conservative benchmark	Not friendly to AI-driven quotation, commentary, or hybrid content creation
10	India TV v. Yashraj Films, FAO(OS) 583/2011	2012	Use of clips in talk shows and ads; claimed de minimis	Denied fair use under S.52; accepted de minimis without expanding S.52; applied U.S. four-factor test	Judicial restraint; emphasized Parliament's role in reform; relied on quantitative de minimis	Sign of judiciary limiting its scope; highlights structural inflexibility for emerging tech, especially AI/media overlaps
11	ICC Development (International) Ltd. v. NDTV	2012	Unauthorized use of sports footage in reporting	Prioritized broadcaster's commercial rights over evolving fair use norms; declined to apply flexible foreign interpretations	Confirms judicial preference for literal statutory reading over public interest or tech evolution	Undermines AI access to public interest content in commercial broadcast archives
12	Chancellor v. Rameshwari Photocopy Services	2016	Fair use for educational copying (Trial & Division Bench)	Court refused to impose quantitative limits; emphasized parliamentary intent; cautious approach to fair dealing	Affirmed broader educational access; restrained from legislating; lacked detailed economic analysis	Crucial precedent supporting AI/ML training on academic corpora; judicial caution means future scope still uncertain
13	Ravinder Singh v. Evergreen Publications	2018	Use of question papers in guidebooks	Rejected transformative claims; emphasized substitution and market competition	Restrictive and commercially protective; no innovation space for adaptive educational AI	Reduces scope for training models using test-prep or academic simulation data
14	Super Cassettes v. Shreya Broadcasting	2019	Use of song in TV satire/criticism	Followed Hamar; refused to analyze transformation; focused on literal criticism	Avoided market analysis or editorial transformation; narrow interpretive method	Not suitable for evolving formats like AI parody, review, satire, or auto-generated mashups
15	Tips Industries v. Wynk Music	2019 / 2022	Applicability of S.31-D to streaming platforms	Declared streaming non-broadcast; fair dealing inapplicable to on-demand use	Refused to adapt S.52 to digital consumption; deferred to Parliament	Restrictive for generative music AI; reinforces analog-specific interpretations
16	Shemaroo Ent. Ltd. v. News Nation Network	2022	Post-license revocation use of copyrighted clips	Emphasized license history over nature of use; burden on defendant at interim stage	Contractual history prioritized over fair dealing logic; ignored editorial justification	Burdens AI-driven broadcasters relying on secondary content reuse or commentary

17	St+Art Indian Foundation v. Acko Gen. Insurance	2023	Use of celebrity photos in ad campaigns	Required proof at interim stage; deferred trial for S.52; rejected foreign fair use analogies	Strong formalism; limits experimental or editorial reuse unless clear from start	Problematic for AI-generated collages, memes, or image-based editorial uses
18	Galatta Media (P) Ltd. v. Nian Media (P) Ltd., 2024 SCC OnLine Mad 5682	2024	Use of film clips and celebrity commentary in online shows	Court declined to apply foreign transformative use standards; placed early evidentiary burden on defendant	Judicial restraint; refused to expand S.52 despite digital format and foreign precedents; reversed burden at interim stage	Illustrates limits of fair dealing for AI-generated commentary, celebrity content remix, and social video platforms
19	ANI Media Pvt. Ltd. v. Mohak Mangal	2025	Use of news footage in critical explained content	At interim stage; fair dealing argued as transformative; court showed doctrinal tension	Highlights structural struggle in applying narrow statutory fair dealing to dynamic digital expression	Test case for whether Indian courts can stretch S.52 to fit YouTube* explainers, AI-driven news summaries

\* The foreign person owning the YouTube informational resource violates the legislation of the Russian Federation.

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## Conflict of interest

The author declares no conflict of interest.

## Financial disclosure

The research had no sponsorship.

## Thematic rubrics

**OECD:** 5.05 / Law

**PASJC:** 3308 / Law

**WoS:** OM / Law

## Article history

**Date of receipt** – August 13, 2025

**Date of approval** – August 26, 2025

**Date of acceptance** – December 20, 2025

**Date of online placement** – December 25, 2025



Научная статья

УДК 34:004:346.6:004.8:347.78

EDN: <https://elibrary.ru/xeltpk>

DOI: <https://doi.org/10.21202/jdtl.2025.24>

# Авторское право перед вызовами генеративного искусственного интеллекта: судебная практика и законодательные стратегии в Индии, США и Европейском союзе

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## Ключевые слова

авторское право,  
анализ данных,  
блокчейн,  
генеративный  
искусственный интеллект,  
искусственный интеллект,  
право,  
правовое регулирование,  
сравнительное  
правоведение,  
судебная практика,  
цифровые технологии

## Аннотация

**Цель:** проведение сравнительного анализа судебной интерпретации доктрины добросовестного ведения сделок и добросовестного использования в системах авторского права Индии, Соединенных Штатов и Европейского союза в контексте вызовов, порождаемых развитием генеративного искусственного интеллекта и технологий блокчейна.

**Методы:** в работе использован комплекс научных методов, включающий сравнительно-правовой анализ законодательства трех юрисдикций, систематический анализ судебной практики Индии, догматический метод толкования нормативных актов, а также структурно-функциональный подход к исследованию правовых институтов. Особое внимание уделено изучению индийской судебной практики применения доктрины добросовестного ведения сделок за более чем 60 лет, анализу американской доктрины добросовестного использования с ее четырехфакторным критерием и исследованию европейской системы законодательных исключений для интеллектуального анализа текстов и данных. Методологическая основа исследования включает историко-правовой метод для выявления эволюционных тенденций судебного толкования исключений из авторского права, формально-юридический метод для анализа нормативного содержания правовых институтов, а также метод правового моделирования для разработки рекомендаций по совершенствованию законодательства в области регулирования генеративного искусственного интеллекта и блокчейн-технологий.

**Результаты:** проведенное исследование убедительно демонстрирует структурное несоответствие индийской системы исключений из авторского права по принципу закрытых списков для регулирования генеративного искусственного интеллекта и блокчейн-технологий.

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Установлено, что индийская доктрина добросовестного ведения сделок характеризуется пятью фундаментальными ограничениями: чрезмерной привязанностью к буквальному толкованию законодательного текста, отсутствием концепции трансформирующего использования, неспособностью адаптироваться к цифровым форматам, правовым пробелом в регулировании результатов работы искусственного интеллекта и существенно ограниченным применением. Сравнительный анализ выявил, что американская система достигает структурных пределов при регулировании масштабного использования данных, тогда как европейская модель ограничивается этапом ввода данных и не охватывает коммерциализацию результатов работы искусственного интеллекта.

**Научная новизна:** впервые проведен комплексный сравнительно-правовой анализ применения доктрин добросовестного ведения сделок и добросовестного использования к генеративному искусственному интеллекту и блокчейн-технологиям на основе систематизации более чем шестидесятилетней судебной практики трех правовых систем, позволивший выявить структурные ограничения как открытых, так и закрытых моделей исключений из авторского права и обосновать необходимость перехода к комплексному регулированию полного жизненного цикла создания и коммерциализации контента, генерируемого искусственным интеллектом.

**Практическая значимость:** результаты исследования могут быть использованы при разработке национальных стратегий регулирования искусственного интеллекта, реформировании системы исключений из авторского права, внедрении технологически нейтральных норм для интеллектуального анализа данных, создании механизмов раскрытия информации об обучающих наборах данных и реестров отказа правообладателей, а также при модернизации системы коллективного управления правами с применением инструментов блокчейна.

## Для цитирования

Амит Шрирам, К. С. (2025). Авторское право перед вызовами генеративного искусственного интеллекта: судебная практика и законодательные стратегии в Индии, США и Европейском союзе. *Journal of Digital Technologies and Law*, 3(4), 598–635. <https://doi.org/10.21202/jdtl.2025.24>

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## Конфликт интересов

Автор сообщает об отсутствии конфликта интересов.

## Финансирование

Исследование не имело спонсорской поддержки.

## Тематические рубрики

**Рубрика OECD:** 5.05 / Law

**Рубрика ASJC:** 3308 / Law

**Рубрика WoS:** OM / Law

**Рубрика ГРНТИ:** 10.19.31 / Право на информацию

**Специальность ВАК:** 5.1.3 / Частно-правовые (цивилистические) науки

## История статьи

**Дата поступления** – 13 августа 2025 г.

**Дата одобрения после рецензирования** – 26 августа 2025 г.

**Дата принятия к опубликованию** – 20 декабря 2025 г.

**Дата онлайн-размещения** – 25 декабря 2025 г.