Trends in Intellectual Property Research

Innovative

Research Article

From Inspiration to Remuneration: Fair Compensation of Fashion Designers for Generative AI Training and Outputs by EU IP Law

Isheta Boruah[1,*] and Aminesh Nayan Gogoi[2]

[1] School of Law, Queen Mary University of London, United Kingdom
[2] National Law University and Judicial Academy, Assam, Guwahati, Assam, India; amineshnayangogoi@gmail.com
* Correspondence: ishetaboruah.nluassam@gmail.com

Abstract: The rapid integration of Generative AI in the fashion industry has created a critical value-distribution crisis, as developers scrape digital fashion archives to train models that probabilistically synthesize new garments without directly copying protected expressions. Current European Union intellectual property frameworks, particularly the text and data mining exceptions under Article 4 of the Copyright in the Digital Single Market Directive, rely on a structurally inadequate opt-out mechanism that places an insurmountable logistical burden on individual creators. To resolve this market failure, current study contends that the EU must transition from an exclusion-based rights-reservation framework to a positive right of equitable remuneration to ensure fashion designers are fairly compensated for their involuntary infrastructural contributions. The authors propose a hybrid compensation formula combining a baseline collective fee applied at the data-training stage with a supplemental royalty for high-value commercial outputs. By leveraging Extended Collective Licensing (ECL) and the transparency obligations of the EU Artificial Intelligence Act, this framework aims to harmonize technological innovation with the fundamental intellectual property rights of human creators.

Keywords: generative AI; intellectual property rights; EU copyright law; fashion law; equitable remuneration; text and data mining (TDM); extended collective licensing (ECL); aesthetic imitation; EU AI act; AI training data

Citation: Isheta Boruah and Aminesh Nayan Gogoi. 2026. From Inspiration to Remuneration: Fair Compensation of Fashion Designers for Generative AI Training and Outputs by EU IP Law. *Trends in Intellectual Property Research* 4(4), 23-34. https://doi.org/10.69971/tipr.4.4.2026.161

Copyright: © 2026 by the authors. This article is licensed under a Creative Commons Attribution 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0

1. Introduction

Generative AI (GenAI) refers to the computational systems that can produce new text, images, patterns, videos, or other content from prompts or learned relationships in a large pool of datasets. In fashion, these systems can generate textile prints, garment silhouettes, styling concepts, colorways, virtual models, product visualization, and entire collections. This production does not mean that generative AI can create independent fashion culture. Its originality depends on prior creative materials (prior art) from which it learns visual patterns and relationships between words and images. The central economic and perhaps the legal question is thus not whether an AI-generated image resembles an existing fashion work but also whether the underlying fashion work could fairly and lawfully have been used to build the system in the first place for equitable remuneration. Training a generative model involves collecting, copying, processing, and analyzing very large quantities of digital material. In the fashion sector, relevant training material includes fashion photographs from magazines, runway archives, garment designs, textile prints, images of models, museum and institutional archives documenting historical garments, brand names, product descriptions, and commercial datasets licensed by image agencies and trend forecasters, or fashion platforms.

GenAI training normally involves at least temporary copies and computational extraction of information from protected material. Under Article 4 of the EU Copyright Directive, Directive (EU) 2019/790,[1] encapsulates that data mining and text can mean the automated analysis of works that can be lawfully accessed, including finding patterns, trends, and correlations. However, when a reservation of rights is effective, the rightsholders and or creators may wish to reserve their rights in a proper machine-readable manner, and therefore authorization may be necessary (Marcelin and Cassetti 2025).

[1] 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 and amending Directives 96/9/EC and 2001/29/EC (DSM Directive), OJ L 130, 17.5.2019, 92–125, https://eur-lex.europa.eu/eli/dir/2019/790/oj

It has been observed that the legal status of fashion materials are not uniform. A photograph may be protected by copyright, while the depicted garment may raise separate questions concerning design rights, copyright, trademarks, trade secrets, publicity rights, or contractual restrictions. A historical archive may also contain layered rights belonging to photographers, designers, models, publishers, museums, estates, or collecting societies. Consequently, "fashion data" is not a single legal category. It is a bundle of works, images, information, personal attributes, and commercial identifiers subject to different rules.

During the process of training AI, the usage of fashion material creates a value-distribution problem because the economic and remuneration benefits and the creative contributions are separated. Fashion creators and rightsholders may supply the photographs, designs, archives, and cultural knowledge that make a model commercially useful. Yet the principal financial gains may accrue to AI developers, technology platforms, fashion companies, and downstream users who can produce content at lower cost and greater scale.

Current study examines how the EU legal framework responds to the use of creative works related to fashion as training material for GenAI and whether that framework adequately addresses the distribution of value between AI developers, fashion businesses, and human creators.

2. The Fashion Creative Corpus and the Fragmentation of IP Protection

The contemporary fashion ecosystem operates fundamentally through digital mediation. Physical garments are translated into two-dimensional visual data, encompassing lookbooks, digitized archives, runway photography, and social media imagery, which collectively comprise a massive, distributed repository of aesthetic expression. For human creators, this digital corpus serves as a mood board and historical archive. For generative AI, however, this repository is reduced to a machine-readable dataset.

During the training of latent diffusion models, fashion works are stripped of their physical materiality and individual authorship, transforming instead into statistical correlations between pixels and descriptive text metadata (Gervais 2020). The AI does not perceive a dress, rather, it processes the mathematical probabilities of specific silhouettes, fabric draping, and stylistic vocabularies occurring together in a latent space (Sobel 2017). Consequently, the digital creative corpus becomes a raw infrastructural resource. The aggregate value of this dataset is immense, and it functions completely independently of the individual garments that constitute it, creating a new digital common that private AI developers exploit for commercial gain (Geiger 2021).

Historically, fashion occupied a precarious position within IP regimes, often relegated to the less robust protection of design rights due to its utilitarian nature. However, under European Union law, the Court of Justice of the European Union definitively realigned the protection of applied arts in *Cofemel – Sociedade de Vestuário SA v G-Star Raw CV*.[2] The Court established that clothing designs are eligible for full copyright protection under the Information Society Directive,[3] provided they meet the autonomous EU standard of originality.

To achieve this protection, the fashion work must satisfy two specific criteria, namely originality and expression. The work must be the author's own intellectual creation, reflecting their personality and free creative choices (Rosati 2020) and the design cannot be dictated solely by technical function, and it must manifest in an identifiable, objective form.

Despite this harmonized threshold, fashion copyright is inherently fragmented. Protection extends only to the specific, original expression of a garment, not to the underlying trends, styles, or functional concepts (Senftleben 2023). Therefore, while a specific floral print or an asymmetric hemline may attract protection, the broader bohemian or minimalist aesthetic it belongs to resides firmly in the public domain. This idea-expression dichotomy, a foundational tenet of copyright law, is deeply problematic when applied to algorithmic extraction, as AI systems are specifically designed to mine these unprotectable underlying patterns rather than copy specific expressions (Samuelson 2021).

Machine learning paradigms fundamentally disrupt the ontological premise of traditional copyright law, which focuses on the relationship between an individual creator and a discrete work. When generative models train on the fashion corpus, they execute a radical separation between the individual copyrighted work and the aggregate stylistic knowledge derived from it.

During the training phase, algorithmic processes analyze millions of protected fashion works to extract underlying rules, patterns, and styles. Intellectual property frameworks are generally ill-equipped to govern this extraction because traditional copyright protects expressive output, not statistical ideas or non-expressive data (Margoni and Kretschmer 2022). Once the neural network weights are adjusted based on this training data, the original works are typically discarded from the system's active memory. The resulting model retains the stylistic essence of the corpus without retaining any identifiable fragment of the individual works, successfully severing the legal tether between the original human author and the resulting technological asset (Guadamuz 2021).

This algorithmic separation precipitates a profound value-distribution crisis for the fashion industry. Generative AI models can instantly synthesize novel fashion designs that compete directly with human designers in the commercial market. These outputs generate immense economic value by leveraging the collective aesthetic labor embedded in the training corpus. Yet, because the AI synthesizes these images probabilistically rather than copying them verbatim, the outputs rarely qualify as actionable reproductions or derivative works under traditional infringement doctrines.

Under the standard established in *Infopaq International A/S v Danske Dagblades Forening*,[4] infringement requires the reproduction of elements that express the intellectual creation of the author. Generative fashion outputs typically evade this threshold for several reasons, mostly by aesthetic amalgamation and mimicry of style. The AI blends thousands of influences so thoroughly that no single intellectual creation is reproduced in a recognizable form (Craig 2021; Guadamuz 2021). The outputs generally mimic

---

2 Case C-683/17, *Cofemel – Sociedade de Vestuário SA v G-Star Raw CV*, ECLI:EU:C:2019:721 (CJEU, 12 September 2019), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62017CJ0683

3 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), OJ L 167, 22.6.2001, 10–19, https://eur-lex.europa.eu/eli/dir/2001/29/oj

4 Case C-5/08, *Infopaq International A/S v Danske Dagblades Forening*, ECLI:EU:C:2009:465 (CJEU, 16 July 2009), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62008CJ0005

unprotectable styles or public domain concepts rather than replicating specific, copyrighted expressions. The resulting paradigm allows AI developers to capture the economic value of the fashion corpus entirely legally. This leaves human creators without recourse or remuneration for the indispensable foundational data they provided, thereby necessitating a reevaluation of how legal systems compensate diffuse creative contributions (Trapova and Mezei 2022).

3. Generative AI Training under the EU Copyright Framework

Training a generative AI model typically involves several acts that fall within the scope of EU copyright law. At first, the collection and ingestion of fashion photographs, designs, archives, and other materials require the making of copies, whether temporary or permanent, while downloading, crawling, scraping, or licensing datasets. Then second, the processing of those materials for training such as normalizing file formats, resizing, tokenizing, or embedding may involve further reproductions and adaptations. At last, third, the retention of copies for iterative training, evaluation, or fine-tuning also constitutes reproduction (Dornis and Lucchi 2025).

Under the InfoSoc Directive, Directive 2001/29/EC,[5] the reproduction right is broad. It covers any temporary or permanent reproduction by any means and in any form, in whole or in part, where the copied elements express the author's own intellectual creation. The Court of Justice of the European Union has confirmed that even transient or partial copies can amount to reproduction if they retain protected elements in a recognisable form (Riaz 2026).

Thus, if anyone wants to train an AI, they don't tread into a copyright-free zone just since the final output can be transformative or because the model stores weights rather than images, which are raw. Initial computational extraction and copying of the information from works which are already protected require either authorization or a statutory exception.

The EU's primary legal response to AI training is found in the Copyright in the Digital Single Market Directive, Directive (EU) 2019/790 (DSM Directive).[6] The Directive introduces two distinct text and data mining (TDM) exceptions in Articles 3 and 4. TDM is defined as "any automated analytical technique aimed at analyzing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations" (Marcelin and Cassetti 2025).

The definition of TDM is broad enough to cover the computational analysis of fashion images, designs, and archives for the purpose of training generative models. The main burning question is which exception applies under what conditions.

3.1 Article 3: Cultural Heritage and Research Use

Article 3 of the EU Directive on Copyright in the Digital Single Market mandates a mandatory exception for extractions and reproductions made by research organizations or institutions and cultural heritage institutions for the purposes of scientific research. The exception applies only where the institution has access, which is lawful, towards the subject matter or the work. It is designed to facilitate non-commercial and academic research, including projects by universities, public research bodies, and museums.[7]

For fashion, Article 3 can be relevant where a fashion department of a university, a museum archive, or a public research institute uses its lawfully accessible collections/work to train models for scholarly purposes. Article 3 is not the primary route for commercial remuneration for AI developers or fashion companies that train models for market deployment. Its scope is limited to specific beneficiaries and to scientific research (Niyompatama and Lapatoura 2025).

3.2 Article 4: Commercial Text and Data Mining

However, Article 4 of the EU Directive on Copyright in the Digital Single Market establishes a much broader, general purpose TDM exception (Senftleben 2026).[8]

The usage of generative AI in fashion, Article 4, is the central provision. It potentially authorizes the copying and computational analysis of fashion photographs, designs, and archives for training, provided two conditions are met:

i. **Lawful access:** the person or entity carrying out TDM must have lawful access to the works. This may be through public availability, contractual licenses, database subscriptions, or other lawful means.

ii. **No rights reservation:** the rightsholder must not have expressly reserved their rights in an appropriate manner, including machine-readable means for online content.

Article 4 is thus an exception which is conditional. It does not grant an unconditional right to mine all publicly available content. It creates a framework in which commercial TDM is permitted unless rightsholders actively opt out. The exception is also subject to the general three-step test of international and EU copyright law.[9] Any use must be limited to certain special cases, must not conflict with normal exploitation of the work and must not unreasonably prejudice the legitimate interests of the rightsholder. There is academic debate as to whether broad commercial TDM under Article 4 satisfies these conditions, especially where the training data is used for services that compete with or substitute for the original works (Senftleben 2026).

3.3 The Rights Reservation and Opt-Out Model

---

5 InfoSoc Directive, art. 2.

6 DSM Directive, arts. 2(2), 3 and 4.

7 DSM Directive, art. 3.

8 DSM Directive, art. 4.

9 Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886, as revised at Paris on July 24, 1971, art. 9(2), https://www.wipo.int/wipolex/en/text/283698; Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), April 15, 1994, art. 13, https://www.wto.org/english/docs_e/legal_e/27-trips.pdf; InfoSoc Directive, art. 5(5); DSM Directive, art. 7(2).

Article 4(3)[10] provides that the exception applies only where the use of works "has not been expressly reserved by their rightsholders in an appropriate manner, such as machine-readable means in the case of content made publicly available online" (Senftleben 2026).

This opt-out mechanism has several features:

i. **Form of reservation:** reservations may be expressed through contracts/contractually, by terms of use, or via technical or machine-readable signals (for example, metadata, robots.txt-like protocols, or other standardized markers).

ii. **Online content:** for content which is made publicly available online, the Directive explicitly envisages machine-readable means as an appropriate method. This reflects the practical reality that individual licensing negotiations for billions of images or designs would not be feasible.

iii. **Effect of reservation:** where a valid reservation exists, the Article 4 exception cannot be applied. The AI developer must then rely on a license or another exception or risk infringement (ECIJA 2025).[11]

To understand this in simplified language, Article 4 allows any person or organisation to carry out text and data mining on lawfully accessible copyrighted works for any purpose, including commercial purposes, unless the rights holder has expressly reserved that use in an appropriate manner (Arthur Cox 2020; Marcelin and Cassetti 2025).[12] But there exists the "unless" clause, which says this permission applies unless the rights holder has expressly reserved their rights; thus, the opt-out mechanism pertains to content available publicly online. Rights holders must state their reservation in a machine-readable format (such as metadata tags or robotic exclusion protocols) so automated software can detect it (ECIJA 2025). For creators in fashion, the opt-out model shifts part of the burden onto rightsholders. For photographers, designers, archives, and publishers, they must actively signal that they do not consent to commercial TDM. If they do nothing, the law presumes permission for TDM, subject to lawful access.

This discussion raises practical and normative questions. Many individual creators may not be aware of the reservation mechanism or lack the technical capacity to implement it effectively. Then there are large platforms, and agencies may adopt different policies, leading to fragmentation. Moreover, the effectiveness of machine-readable signals depends on their adoption by AI developers and their integration into data-collection pipelines (ECIJA 2025).[13]

3.4 Adequacy of the Existing Framework for Fashion Creators

The DSM Directive's framework of TDM provides legal clarity for AI training in principle, but its adequacy for fashion creators is contested and debated. Several concerns arise:

i. **Non-symmetry of information and power:** large AI developers and data aggregators are better positioned to understand and implement reservation systems than individual photographers, designers, or small labels.

ii. **Opt-out burden:** the requirement to reserve rights actively may disadvantage creators who lack resources, legal advice, or technical infrastructure.

iii. **Lawful access ambiguity:** the concept of lawful access is not exhaustively defined. It may depend on contractual terms, policies of platforms, or national implementations, creating uncertainty for both creators and AI developers.

iv. **No remuneration mechanism:** Article 4 permits commercial TDM without any obligation to pay remuneration, even where the training data significantly contributes to the model's value.

v. **Limited transparency:** before the AI Act, there was no EU-wide obligation for AI developers to disclose which works or categories of works were used for training.

The Court of Justice European Union (CJEU) has established that exceptions must be interpreted in the light of their purpose and must not deprive the right of reproduction of its substance. The three-step test requires exceptions not to conflict with normal exploitation or unreasonably prejudice the interests of rightsholders. Where commercial TDM enables artificial intelligence systems which compete with or substitute for licensed fashion imagery or design services, the question arises whether the exception stays within these limits (Senftleben 2026). The main issue for fashion creators is not only whether training is lawful but also understanding whether the current legal framework ensures that fashion creators obtain/retain meaningful control and receive fair value when their works contribute to AI systems in commercial areas.

3.5 Relevance of the EU Artificial Intelligence Act

The EU AI Act, Regulation (EU) 2024/1689, introduces more obligations for providers of general-purpose AI (GPAI) models that are relevant to copyright and training data.[14] Article 53 imposes specific duties on GPAI providers, including:

i. **Copyright-compliance policy: providers** must implement a policy to comply with EU copyright law, including the identification and enforcement of reservations of rights expressed under Article 4(3) of the DSM Directive.[15]

---

10 DSM Directive, art. 4(3).

11 DSM Directive, arts. 4(1) and 4(3).

12 DSM Directive, arts. 4(1) and 4(3). See also https://www.copyrightexceptions.eu/#dsm4.

13 DSM Directive, arts. 4(1) and 4(3).

14 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), OJ L, 2024/1689, 12.7.2024, art. 53, https://eur-lex.europa.eu/eli/reg/2024/1689/oj

15 AI Act, art. 53(1)(c). See also CASRAI Editorial Board, EU AI Act Article 53 (General-Purpose AI Model Obligations), CASRAI Dictionary, July 23, 2026, https://casrai.org/dictionary/term/eu-ai-act-article-53-general-purpose-ai-model-obligations

ii. **Training-content summary:** providers must draw up and make publicly available a sufficiently detailed summary of the content used to train the GPAI model, following a template provided by the AI Office.[16]

These obligations are proposed to aim to increasing transparency and encouraging respect for rightsholders' reservations. In principle, they should enable fashion creators and their representatives to identify whether their works or categories of works have been used and to assert opt-out rights where appropriate.[17]

However, there are several limitations that remain:

i. **Level of detail:** the overall requirement is for a "sufficiently detailed" overview, not a full dataset disclosure. It may describe categories, sources, or proportions rather than identifying or disclosing specific works.

ii. **Enforcement gaps:** the AI Act does not create a direct remuneration right for rightsholders. It focuses on transparency and policy, not on payment or licensing.

iii. **Timing and effectiveness:** the practical impact depends on how the AI Office template is implemented, how rigorously providers identify and respect reservations, and how effectively creators can use the information to enforce their rights.

The key question is whether transparency and opt-out, as currently structured, are indeed good enough to protect fashion creators or not. Transparency might assist awareness and some enforcement of reservations, but it does not solve the underlying problem of equitable remuneration distribution. Creators may still find that their works are lawfully being used for training without compensation and that the burden of opting out remains on them. The framework may therefore be important and necessary but insufficient to ensure fair outcomes for fashion photographers, designers, and archives in the age of generative AI.[18]

4. Rights Reservation to Remuneration

Should an analysis of the limitations be undertaken, the current European Union copyright framework relies heavily on an exclusion-based model, primarily through the opt-out mechanism established in Article 4 of the Directive on Copyright in the Digital Single Market. While this mechanism grants rightsholders the theoretical ability to reserve their rights against text and data mining, its practical application within the fast-paced fashion industry is severely limited. Fashion relies on the rapid, widespread dissemination of visual content across digital platforms, making comprehensive rights reservation technologically and logistically insurmountable for individual designers. Automated text and data mining methods extract hidden patterns in information to generate new knowledge, yet the laws governing the lawfulness of these extraction methods remain critically unclear (Vrakas 2024). By the time a creator successfully implements machine-readable opt-outs for a specific collection, the images have often already been ingested into training datasets. As a result, unauthorized text and data mining processes threaten the economic rights of right holders and transmute traditional copyright debates into an unbalanced paradigm where the romanticized human author is systematically substituted (Tyagi 2024).

Given the structural inadequacies of the opt-out mechanism, a paradigm shift from rights reservation to a positive remuneration right is increasingly necessary. Generative artificial intelligence systems are anticipated to substantially disrupt creative industries, artists, and professional designers by producing works that substitute the very human creators from whom they learn (Tyagi 2024). A positive remuneration right acknowledges that while preventing the machine ingestion of public data may be futile, the creators of that data are nonetheless entitled to a fair share of the wealth it generates. This model shifts the regulatory focus from blocking artificial intelligence development to ensuring that human fashion creators are equitably compensated for their involuntary infrastructural contributions. Such a balanced framework is essential to preserve the incentives for human innovation while safeguarding the interests of the original creators in the age of text and data mining (Tyagi 2024).

Despite the equitable appeal of a remuneration right, several substantial counterarguments exist within contemporary intellectual property discourse. Proponents of generative artificial intelligence argue that machine learning constitutes a non-expressive use focused on extracting correlations and patterns rather than appropriating protected expression. From this perspective, mandating a remuneration scheme could introduce prohibitive transaction costs and create a chilling effect on European artificial intelligence innovation. There are ongoing debates among academics and practitioners regarding what constitutes lawful text and data mining, with some arguing that stringent regulatory frameworks might stifle the technological advancements needed for competitive digital economies (Vrakas 2024). Furthermore, critics contend that because fashion outputs generated by algorithms predominantly replicate unprotectable styles rather than specific expressions, mandating remuneration essentially creates a quasi-monopoly over the public domain.

Establishing a remuneration right requires a robust legal foundation that balances the rights of creators with the imperative of technological development. The rapid growth of generative models, which reached unprecedented user adoption rates within months of their public launch, highlights the urgent need for scalable legal solutions (Tyagi 2024). Several potential models present viable pathways:

a) **Statutory Licensing:** A legislative intervention could create a statutory license for artificial intelligence training, removing the right to prohibit use but guaranteeing equitable remuneration.

b) **Extended Collective Licensing:** By leveraging collective management organizations, this framework could allow representative bodies to negotiate remuneration on behalf of all fashion designers, thereby solving the transaction cost problem.

---

16 AI Act, art. 53(1)(d).

17 AI Act, art. 53(1)(c)–(d).

18 See AI Act, art. 53.

c) **A Charter-Based Framework:** A more flexible regulatory approach grounded in the Charter of Fundamental Rights[19] could be developed to harmonize the text and data mining framework across the European Union, balancing technological expansion with fundamental intellectual property rights (Tyagi 2024).

Ultimately, the reliance on an exclusion-based opt-out mechanism under the current European Union framework proves fundamentally incompatible with the digital realities of the fashion industry. The rapid algorithmic ingestion of the creative corpus necessitates a transition toward a positive remuneration right, ensuring equitable compensation for designers without entirely stifling technological progress (Senftleben 2023). While concerns regarding transaction costs and the preservation of the public domain are valid, structural solutions like extended collective licensing offer viable pathways to balance these competing interests (Gervais 2020).

5. Determining the Remuneration

One of the central design choices in any remuneration scheme for fashion designers and creators is the point at which payment is executed. Two broad models can be distinguished: compensation at the output stage, when AI-generated results are commercially exploited, and compensation at the training stage, when works are ingested into an AI system. Each strategy has unique benefits and drawbacks, and a combined model might provide a more well-rounded solution (Senftleben 2023).

5.1 Training-Stage Remuneration

During the training stage, compensation would require AI developers or deployers to pay when they use fashion works which are protected for commercial training. Payment could be structured as a flat rate per dataset, a per-work license rate, or a collective charge on commercial text and data mining (TDM) activities, administered by collecting societies or more extensive collective licensing schemes (Senftleben 2023).

The key benefits of this model are reliable predictability and administrative ease of use. Rightsholders would receive compensation at a clearly defined point in time, linked to the act of reproduction and computational extraction that is already recognized under copyright law. Collective management would be relatively straightforward: societies could negotiate blanket licenses with AI developers, distribute royalties based on sampling or usage reports, and apply existing distribution keys for visual works, designs, or archives. This approach also aligns with the belief that training itself creates value: the model's capabilities depend on the quality, diversity, and cultural significance of the training data (Senftleben 2023).

Nonetheless, training-stage remuneration also raises challenges and complications. First, it may be difficult to determine which works contribute meaningfully to a model's optimum performance. Not all ingested/inserted images or designs have equal influence; some may be irrelevant or redundant. A flat fee risks overpaying for low-value inputs and underpaying for high-value ones. Second, tracing and examining training data is complex. AI developers may rely on multiple datasets, some licensed, some scraped, and some transformed. Confirming the presence and use of specific works may be technically challenging. Third, training-stage payments may not reflect downstream value. A model trained on fashion archives may generate outputs that generate far more revenue than the initial training fee estimates, particularly where the outputs are used in worldwide advertising, merchandising, or licensing (Rai et al. 2025).

5.2 Output-Stage Remuneration

Remuneration at the output stage would link payment to the commercial exploitation of AI-generated fashion content. Rightsholders could receive a share of revenues when an AI-generated image, design, or campaign is marketed, licensed, or used in advertising, e-commerce, or product packaging. This could be implemented through mandatory remuneration rights, contractual royalty clauses, or extended collective licensing tied to output categories (Rai et al. 2025).

The primary advantage of output-stage remuneration is its link to actual economic value rather than flat fee. If the AI-made content makes a lot of money or becomes very successful, the creators will get paid more money. Hence, when their work is used for highly profitable projects, they get a fair share of those earnings. If the AI content does well (gets more views, sales, or users), the payout goes up. If the AI uses a creator's work for a massive, expensive, or highly profitable project, the creator won't be left out. It would also create a direct link between the output and the remuneration, which may be perceived as fairer by both creators and users (Bensamoun and Groffe-Charrier 2025).

However, output-stage remuneration faces significant challenges especially regarding attribution and cause. Generative outputs are usually composites that are influenced by multiple inputs rather than exact copies of training works. It is technically and legally challenging to determine which rightsholders should be compensated for a specific output. It would take complex provenance systems to trace lineage from output back to training data, and the results might still be ambiguous. Administrative costs could be high, especially for high-volume, low-value uses such as social media imagery or fast-fashion e-commerce visuals. Additionally, there is a chance of under-enforcement and many commercial uses might go unreported in the absence of thorough monitoring and reporting, depriving creators of adequate compensation (Bensamoun and Groffe-Charrier 2025).

5.3 A Combined Model Approach

The goal of a combined model is to minimize the drawbacks of both strategies while capturing their advantages. In this framework, commercial AI training would result in a base payment, which would be augmented by additional compensation in cases where an AI-generated output leads to discernible additional exploitation.

During the training phase, the baseline payment would be used. The right to use protected fashion works in training would be paid for collectively by AI developers or commercial deployers. Regardless of downstream success, this fee would acknowledge the intrinsic value of the training data and give creators a steady income stream. Additionally, it would make enforcement easier

---

[19] Charter of Fundamental Rights of the European Union, OJ C 326, 26.10.2012, 391–407, art. 17(2), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT

because the AI Act's dataset declarations and licensing agreements can be used to monitor the obligation, which arises at the point of copying (Senftleben 2023).

Additional payment would operate at the output stage, but only in defined circumstances. Where an AI-generated fashion output is used in high-value contexts such as major advertising campaigns, flagship product lines, or licensing deals and where a sufficient link can be established to specific training works or categories of works, an extra royalty or lump-sum payment would be due. This could be initiated by contractual clauses, collective agreements, or legal presumptions for certain types of exploitation. Evidence-based tools, metadata standards, and AI Act transparency obligations could help identify relevant outputs and allocate payments (Rai et al. 2025).

This combined approach provides both certainty and fairness. The baseline payment ensures that all commercial training contributes to remuneration to the creators, addressing the value-distribution problem at its source. The output-stage supplement guarantees that creators share in exceptional value where it can be reasonably allocated. Additionally, since these aspects may have an impact on both baseline and supplemental payments, it encourages AI developers to make investments in improved data governance, provenance tracking, and respect for reservations (Rai et al. 2025).

In the fashion industry, a model as such could be established through sector-specific agreements between AI providers, fashion brands, image or PR agencies, museums, and collecting societies. Thus, by including a compensation layer that the DSM Directive and AI Act do not currently provide, such a combined model would enhance the EU's current copyright and AI frameworks (Quintais 2025).

6. AI-Generated Fashion and Aesthetic Imitation

The traditional framework of IP relies heavily on the dichotomy between ideas and expressions. Under established European Union copyright jurisprudence, protection extends exclusively to the specific, original expression of a work, leaving the underlying ideas, methods of operation, and overarching styles firmly in the public domain. In the realm of clothing design, the Court of Justice of the European Union clarified in *Cofemel*[20] that while a specific silhouette or unique fabric draping may attract copyright protection as an author's own intellectual creation, the broader stylistic genre it belongs to remains unprotected (Rosati 2020). Consequently, aesthetic concepts such as dark, minimalist, and Japanese-inspired design aesthetics cannot be monopolized by any single creator. This legal boundary was intentionally designed to foster continuous innovation, ensuring that the fundamental building blocks of fashion remain accessible for future human inspiration. However, generative artificial intelligence challenges this conventional framework, as the algorithmic replication of a creative style blurs the line between unprotectable inspiration and actionable appropriation.

Generative models introduce a novel paradigm by enabling the extraction and reproduction of overarching creative styles without necessarily copying any single pre-existing garment. When these systems are trained on extensive portfolios of fashion designs, they analyze the mathematical correlations between specific visual elements, learning the unique stylistic vocabulary of the original creator. Users by targeted text prompts, can instruct the algorithm to generate entirely new outfits that mimic a targeted creator's aesthetic signature. The resulting outputs are probabilistically synthesized rather than directly copied, meaning they often bypass traditional infringement tests established in *Infopaq*[21] that look for substantial similarity in specific expressions (Craig 2021; Guadamuz 2021). This creates a regulatory gap where the technological capacity to precisely imitate a cohesive stylistic identity far outpaces the legal mechanisms available to govern it, raising profound questions about whether artificial intelligence outputs constitute an infringing reproduction when the original work's essence is recognizable.

Within the competitive landscape of the fashion industry, a recognizable aesthetic identity operates as a core commercial asset. For many independent labels and avant-garde creators, market value is intrinsically tied to their distinctive visual signatures, encompassing everything from specific structural silhouettes to curated, visually cohesive compositions. When generative models democratize the ability to produce stylistically identical works, they threaten to dilute the commercial value of these carefully cultivated identities. By flooding the market with algorithmic imitations that substitute the original human creator, artificial intelligence developers can capitalize on the aesthetic labor and reputational goodwill embedded in the training data. This phenomenon intercepts fundamental rights, particularly the freedom of artistic expression and the right to fair remuneration for intellectual efforts, as human creators find their novel uses compensated poorly while developers maximize free harvesting.

6.1 Aesthetic Imitation and Remuneration

The economic disruption caused by algorithmic imitation necessitates a critical inquiry into whether the large-scale appropriation of style warrants financial remuneration. Adherents to traditional copyright theory argue that because style resides in the public domain, imposing a remuneration requirement for aesthetic imitation would create a quasi-monopoly over ideas, stifling the cumulative nature of fashion design (Sag 2019). Conversely, a growing body of scholarship contends that the scale, speed, and precision of generative imitation create a distinct market failure. Unlike human designers who are naturally limited in their capacity to perfectly replicate another's style, algorithms can do so instantaneously and at scale. Therefore, extending a remuneration right to cover systemic aesthetic imitation may be justified as a statutory compromise grounded in fundamental rights, ensuring an attractive environment for artificial creativity without jeopardizing the right of the human authors to be remunerated.

If a remuneration framework for aesthetic imitation is to be established, a precise legal threshold is paramount. It will ensure fair compensation for targeted stylistic extraction while safeguarding the public domain for genuine human inspiration. Legal scholars have proposed several criteria to distinguish lawful algorithmic inspiration from compensable imitation. A viable threshold could

---

20 *Cofemel*, C-683/17.

21 *Infopaq*, C-5/08.

be triggered when an AI system explicitly uses a creator's distinct aesthetic signature as a guiding prompt, or when empirical evidence demonstrates a high risk of discrimination against artists whose specific styles are imitated by algorithms. Implementing such a threshold would require courts and regulatory bodies to adapt traditional infringement analyses, potentially incorporating broader assessments of overall commercial substitution and targeted stylistic replication to ensure that the human authors of the fashion corpus are compensated.

7. Licensing and Fashion-AI Remuneration

7.1 Individual Licensing

Individual licensing is inappropriate compared to the scale and complexity of generative AI training in fashion. A single model may take in millions of fashion photographs, designs, textile patterns, and archival images from diverse sources like magazines, advertising campaigns, e-commerce platforms, museum collections, stock-image agencies, and social media. Each work may have multiple rightsholders like photographers, designers, stylists, models, publishers, estates, and collecting societies, each holding different rights in the same image or design (Havlíková 2026).

It will be prohibitively costly and slow negotiating separate licenses with every rightsholder. In situations where a single image has a negligible impact on the model's overall performance, transaction costs would be greater than the value of many individual works. Many rightsholders are hard to find or identify, especially when it comes to older archival material or works by designers who have passed away. Others might not have the means or know-how to bargain with AI developers (Havlíková 2026). Furthermore, individual licensing is made more difficult by the dynamic nature of AI training. New versions are constantly released, models are improved, and datasets are updated. Future uses might not be covered by a license negotiated today, and it would be difficult to monitor compliance across several model versions. These factors make it impractical for individual licensing to be the main method of approving and compensating the use of fashion works in AI training (Havlíková 2026).

7.2 Collective Licensing

A more practical option is collective licensing. In this model, rightsholders give a collective management organization (CMO) permission to negotiate licenses with AI developers or deployers on their behalf. The CMO collects compensation, distributes it to members in accordance with predetermined distribution keys, and grants blanket or sectoral licenses covering extensive collections of works (Huss-Ekerhult and Baris 2025).

In the context of fashion and AI, collective licensing offers several advantages. First, by combining negotiations, it lowers transaction costs. Instead of obtaining authorization for thousands of separate contracts, an AI developer can obtain authorization for millions of works through a single agreement. Second, it gives legal certainty because both AI developers and rightsholders are aware of which works are protected and under what conditions. Thirdly, it makes administrative and enforcement economies of large scale possible. CMOs already have the infrastructure needed to license, track, and distribute royalties for designs, photographs, and other fashion-related content (Havlíková 2026).

The Article 4 text-and-data-mining exception can coexist with voluntary collective licensing without the need for legislative change. While those who object to commercial TDM can reserve their rights, rightsholders who would rather license their works than opt out can do so through CMOs. The European Union Intellectual Property Office (EUIPO) has been urged by the European Parliament to support sector-based voluntary collective licensing agreements to be augmented (Foged 2026).

7.3 The Extended Collective Licensing Model

By extending the impact of a collective licensing to non-member rightsholders within a specified category, unless they specifically opt out, extended collective licensing (ECL) goes one step further. A CMO may negotiate a license under ECL that covers both its members and non-members in a specific class of rightsholders, such as fashion photographers or textile designers. Although inclusion is the default, non-members are free to exclude their works or request separate compensation (Foged 2026).

ECL tackles the issue of incomplete representation, which is a major flaw in voluntary collective licensing. In fragmented industries like fashion, where many creators operate independently or internationally, even a well-established CMO might not be able to represent all pertinent rightsholders. By guaranteeing that a license covers an extensive repertoire, ECL lowers the possibility of non-member infringement claims and gives AI developers more legal certainty (Foged 2026).

As part of its national implementation of Article 4 of the DSM Directive, Denmark has already authorized an extended collective license for text and data mining and AI uses. The license shows that ECL can be modified for TDM and AI training scenarios and covers literary works for internal AI uses in institutional and educational contexts. Fashion-related mechanisms could be created through industry specific agreements or national legislation (Foged 2026).

7.4 Existing Collective-Management Infrastructure

The established infrastructure of collective management already helps the fashion industry. In many EU member states, CMOs and photo agencies oversee the rights of photographers. Design collectives or multidisciplinary organizations may manage certain copyright interests and design rights in applied art. To control access to historical fashion collections, museums and archives frequently collaborate with licensing organizations (Huss-Ekerhult and Baris 2025).

7.5 A Fashion-Specific Mechanism

The degree of sector-specificity determines whether a fashion-specific mechanism is required. Fashion imagery and designs are very visual and frequently involve layered rights in photographs, clothing, and personalities and are frequently associated with brands or seasonal collections. These characteristics set them apart from literary works and music. Additionally, rather than being distributed equally, the commercial value of fashion training data may be concentrated in specific categories, such as runway photography, luxury campaigns, and iconic designer archives (Havlíková 2026).

A fashion-specific mechanism could be a multi-stakeholder organization that brings together photographers, designers, brands, museums, and AI developers, or it could be a dedicated CMO or a sectoral working group within already-existing CMOs. A body

like this could create customized distribution keys, provenance guidelines, and licensing templates that consider the unique characteristics of fashion pieces. Additionally, it could negotiate sectoral agreements that deal with the value chains in fashion AI, from output exploitation to training (Huss-Ekerhult and Baris 2025).

However, if current CMOs can modify their frameworks, a separate mechanism is not strictly required. Photography and design collectives already oversee a lot of fashion projects. The main prerequisite is that these organizations acquire the ability to implement reservation systems, license AI training, and fairly distribute compensation. Without establishing completely new organizations, sectoral cooperation through the EUIPO or industry associations might be adequate to address issues unique to the fashion industry (Huss-Ekerhult and Baris 2025).

7.6 Non-Members and Distribution of Remuneration

The representation of non-members is a crucial issue for any collective scheme. Non-members must negotiate separately or rely on the Article 4 exception in voluntary collective licensing since they are not covered. Non-members are assumed to be included in ECL, but they still have the option to opt out. Clear protocols for identifying works, informing rightsholders, and handling reservations or claims are necessary for both models (Foged 2026).

The distribution of remuneration raises further questions. CMOs would need to find ways to allocate, considering the relative values of different works. That might be sampling, usage reports from AI developers, or statistical models based on the composition of the dataset. In fashion, distribution keys could be related to the relevance of a photograph in a data set, the cultural value of a design archive, or the commercial success of outputs associated with certain training categories (Havlíková 2026).

Accountability and transparency are crucial. Reports on licensing income, distribution standards, and the usage of their works should be sent to rightsholders on a regular basis. It should be possible for AI developers to confirm that licenses cover the resources they use. By offering more details about dataset composition, the AI Act's training-content summary requirement could supplement collective licensing, allowing CMOs to improve distribution and rightsholders to determine whether their works have been used (Havlíková 2026).

To put it simply, collective licensing, whether voluntary or extended, provides a viable and legal framework for remuneration in the fashion-AI context. It tackles the impracticality of individual licensing, builds on existing infrastructure and can be adapted to the specific characteristics of fashion works. Remaining challenges relate to representation, distribution and transparency, but these can be addressed through sectoral or industry specific cooperation, EUIPO support and alignment with the transparency framework of the EU AI Act.

8. Amount of Remuneration

Transitioning from the doctrinal justification of a positive remuneration right to its practical implementation requires the development of sophisticated, qualitative valuation frameworks. Resolving the emerging value-distribution problem necessitates bridging the gap between the fashion creative corpus and technological developers, yet calculating equitable compensation remains a complex economic challenge. The quantification of this right must synthesize multiple variables to ensure proportional justice, preventing market failure without simultaneously stalling algorithmic innovation.

8.1 Dataset Scale, Number of Works, and Commercial Value

The most intuitive baseline for calculating remuneration is the raw volume of copyrighted works ingested during the data training phase. Evaluating the number of works provides a foundational metric for the scale of extraction. However, within the context of generative models trained on datasets comprising billions of images, a strict per-work calculation quickly becomes administratively burdensome. Recent scholarship highlights that the gigantic transaction costs associated with one-to-one licensing negotiations make individual authorization frameworks highly inefficient (Geiger 2025). While the aggregate scale of the dataset establishes the scope of use, relying solely on this quantitative metric fails to capture the qualitative importance and specific commercial weight of individual fashion portfolios.

To ensure equitable compensation, the remuneration model must reflect the intrinsic market value of the ingested data and its economic substitution effect. High-quality, curated fashion datasets possess a distinct commercial value compared to generic web scrapes, as they drive the aesthetic precision of generative outputs. Valuation methodologies, such as the Cost-to-Recreate approach, emphasize the expenses saved by developers through the unauthorized extraction of human-annotated, structured creative works. To operationalize this market value within the European Union, legal proposals increasingly advocate for Extended Collective Licensing frameworks under Article 12 of the Directive on Copyright in the Digital Single Market[22] (Senftleben 2023). This mechanism empowers collective management organizations to negotiate remuneration based on the established market position of the utilized fashion portfolios, effectively mitigating power imbalances between individual creators and technology conglomerates.

8.2 Use and the Economic Value of the AI Model

Beyond mere ingestion, the extent to which an algorithmic system relies on specific works during its training process is a vital metric for fair compensation. There is a significant technical and legal distinction between a model that merely scans an image once to analyze basic fabric textures and a model that heavily weights a specific portfolio to replicate a distinct aesthetic signature. Remuneration frameworks must account for the depth of algorithmic extraction, ensuring that portfolios subjected to intense, targeted data mining receive proportionally higher royalties. This requires stringent transparency obligations, enabling collective management organizations to audit the frequency of use and accurately distribute collected levies.

Simultaneously, a sustainable remuneration system cannot ignore the commercial realities and vast capitalization of the technological sector. Royalties should ideally be tied to the downstream revenue generated by the artificial intelligence systems, rather than imposing prohibitive, static costs strictly at the data collection stage. Using an Income Capitalization method, valuation models

---

22 DSM Directive, art. 12.

can project the future cash flows enabled by high-quality training data (Jureta 2024). Implementing a statutory remuneration right, potentially functioning similarly to a private copying levy, would charge developers based on overall model usage or enterprise licensing revenues. This ensures that the compensation structure scales dynamically with the economic success of the technology.

8.3 Output Attribution and the Hybrid Remuneration Formula

Linking the training data directly to the final generative output offers another critical layer of valuation. This approach focuses on commercial substitution, shifting the emphasis from the opaque stage of data training to the tangible, market-competing output. If a system produces an output that explicitly mimics a protected work or heavily leverages a specific aesthetic signature identified in the training corpus, a higher royalty rate should logically apply. This output-centric metric aligns compensation directly with the most visible instances of economic harm, ensuring that designers are compensated when artificial intelligence generates direct market substitutes.

Relying exclusively on a single metric is analytically inadequate to capture the multifaceted nature of machine learning extraction. Consequently, an optimal regulatory approach demands a qualitative, hybrid remuneration framework that abandons rigid mathematical equations in favor of flexible, multi-variable assessments. This hybrid approach synthesizes the volume of input extraction, the qualitative market value of the ingested data, the overall capitalization of the generative model, and the substitution effect of the final outputs. By coupling a statutory licensing system for data training with a robust, fundamental rights-based approach to fair compensation, this integrated model ensures that creators share directly in the technological prosperity they help facilitate. Such a framework establishes a balanced architecture for fair compensation within the digital single market, fulfilling the need to distribute value fairly while fostering continued innovation.

9. Towards an EU Framework for Fashion-AI Remuneration

Transparency, training-stage compensation, collective administration, output-stage compensation, and safeguards should all be incorporated into a cohesive system in an EU framework for fashion-AI compensation. The proposal adds a compensation layer that solves the value-distribution issue while maintaining the DSM Directive's balance between access and protection, rather than trying to replace the current copyright and text-and-data mining (TDM) regulations.

9.1 Transparency as the Foundation

Article 53 of the EU AI Act already speaks about the requirement for providers of general-purpose AI models to publish a sufficiently detailed summary of the content used for training their models, following a template provided by the AI Office. This summary must describe the categories and sources of training data, enabling rightsholders to identify whether their works or sectors have been used. Then, Recital 107 emphasises that the summary should be "generally comprehensive in its scope" to assist copyright holders in operating their rights.[23]

9.2 Training-Stage Remuneration

The foundation building should be on transparency; the framework would introduce a solution decided by law or a collectively negotiated responsibility/obligation to pay remuneration for commercial TDM (Text and Data Mining) involving fashion works. This would operate alongside Article 4 of the DSM Directive, which permits commercial TDM subject to lawful access and reservation of rights. The remuneration duty/obligation would not dismiss or negate the exception but would attach a payment duty to its commercial use, like existing statutory remuneration rights in other copyright contexts.

The means of payment could be structured as a collective license fee or levy on commercial AI training activities that use fashion repertoires, libraries, and collections. Collective Management Societies (CMOs) would negotiate sectoral or section-based industry agreements with AI developers, covering photographs, designs, and archives represented in their repertoires. The fee would recognize or speak for itself the intrinsic value of training data and provide a predictable income stream for creators, regardless of downstream success (WIPO 2025).

9.3 Collective Administration

Collective management organizations would look after and administer the training-stage remuneration collection. The existing CMOs for photographers, designers, and multi-repertoire rights could expand their mandates to cover AI training, leveraging their licensing infrastructure and distribution systems. Distribution keys would be developed to allocate/distribute remuneration based on dataset composition, sampling, or usage reports from AI developers.

The previously discussed extended collective licensing could be used to ensure overall comprehensive coverage, extending the effect of collective agreements to non-member rightsholders within defined categories unless they bargain to opt out. This would reduce the risk of incomplete representation and increase legal certainty for developers in AI. The EUIPO could support coordination, maintain registries of reservations, and facilitate cross-border licensing.[24]

9.4 Output-Stage Remuneration

In addition to payment at the training stage, the framework would provide for additional remuneration at the output stage where AI-generated fashion content is exploited in high-value contexts. This could include important advertising campaigns, flagship product lines, or licensing deals where a sufficient link can be established to specific training works or categories.

Contractual provisions, collective bargaining agreements, or statutory presumptions for specific forms of exploitation would initiate output-stage compensation. The AI Act's transparency requirements, metadata standards, and provenance tools would all aid

---

[23] AI Act, art. 53(1)(d) and recital 107.

[24] See AI Act, art. 53.

in identifying pertinent outputs and allocating funds. Without placing undue administrative burdens on low value uses, this guarantees that creators share in exceptional value where it can be attributed.[25]

9.5 The Safeguard Framework

Article 4(3) and the opt-out mechanism of the commercial TDM framework would include safeguards to protect all parties. AI developers would receive legal certainty through blanket or sectoral and sector-specific industry licenses that cover large repertoires, reducing infringement risk. Rightsholders would retain the ability to reserve rights under Article 4(3) and opt out of commercial TDM entirely if they choose. Non-members would be represented through ECL mechanisms but could exclude their works or claim separate remuneration.

Accountability and transparency would be ensured through regular reporting by CMOs on licensing revenues, distribution criteria, and the use of works. The AI Act's training-content summary would supplement collective licensing by providing additional information about dataset composition. Mechanisms like dispute resolution would be available for rightsholders who believe their works have been used without authorization or remuneration.[26]

9.6 Operation alongside Existing Rules

Importantly, this framework operates alongside, not in place of, existing copyright and TDM rules. The DSM Directive's Article 4 exception remains the legal basis for understanding commercial TDM. The remuneration obligation and duty attaches to that exception without negating it, like how statutory remuneration rights coexist with exceptions in other areas of copyright law. The AI Act's transparency and copyright-compliance obligations provide the informational infrastructure that makes collective licensing and rights enforcement feasible.[27]

In this way going forward, the proposal respects the EU's existing copyright law while also addressing its gap: the absence or non-existence of a mechanism to ensure that fashion designers and creators receive fair value when their works contribute to commercially successful AI systems in the world.

10. Conclusion

Generative AI has fundamentally disrupted the fashion ecosystem, transforming physical garments, digital lookbooks, and historical archives into raw infrastructural resources for machine learning. Because algorithmic systems probabilistically synthesize unprotectable underlying patterns and creative styles rather than copying specific expressions, traditional copyright paradigms fail to adequately govern this extraction of value. Standards established in foundational jurisprudence, such as *Cofemel* and *Infopaq*,[28] address the systemic replication of a creator's distinct aesthetic identity. This technological capacity creates a profound value-distribution crisis where artificial intelligence developers capitalize on human aesthetic labor without providing equitable compensation, leaving designers with diluted commercial value and limited legal recourse. The European Union's current regulatory response, primarily anchored in the text and data mining exceptions of the Directive on Copyright in the Digital Single Market, is structurally inadequate for the rapid dissemination realities of the fashion industry. The exclusion-based opt-out mechanism under Article 4 places a disproportionate and insurmountable logistical burden on individual creators, functioning more as an illusory safeguard than a practical shield. Furthermore, while the transparency obligations introduced by Article 53 of the EU Artificial Intelligence Act offer necessary visibility into dataset composition, they remain focused on policy rather than solving the underlying necessity of financial compensation.

To rectify this distinct market failure, a paradigm shift is necessary, transitioning from an ineffective rights-reservation model to a robust, positive right of equitable remuneration. This research proposes a comprehensive framework grounded in collective administration, specifically advocating for Extended Collective Licensing to overcome the prohibitive transaction costs inherent in individual negotiations. Equitable compensation should ideally function through a combined model. It is a baseline fee applied at the data training stage to acknowledge the intrinsic commercial value of the ingested fashion corpus, supplemented by an output-stage royalty triggered when generated content operates as a high-value commercial substitute. The exact quantum of this remuneration must be calculated through a qualitative, hybrid formula that weighs dataset scale, commercial positioning, frequency of algorithmic use, and direct output attribution. Ultimately, this proposed remunerative layer can operate cohesively alongside existing EU copyright rules, ensuring that the fundamental rights of fashion designers are safeguarded without stifling artificial intelligence innovation. By mandating transparency, embracing collective management, and bridging the gap between algorithmic inspiration and fair compensation, the European Union can foster a sustainable and equitable digital single market for the future of fashion.

References

Arthur Cox. 2020. Mining for Exceptions in the New Copyright Directive. Arthur Cox Knowledge. https://www.arthurcox.com/knowledge/mining-for-exceptions-in-the-new-copyright-directive/

Bensamoun, Alexandra, and Julie Groffe-Charrier. 2025. *Rémunération des contenus culturels utilisés par les systèmes d'intelligence artificielle: Partie juridique*. Report presented to the plenary session of the Conseil supérieur de la propriété littéraire et artistique (CSPLA), Paris, June 23. English version: *Task Force Report on Remuneration for Cultural Content Used by AI Systems – Legal Component*. https://www.culture.gouv.fr/Media/medias-creation-rapide/cspla-ai-cultural-content-remuneration-legal-component-english.pdf

Craig, Carys J. 2021. AI and Copyright. In *Artificial Intelligence and the Law in Canada*, edited by Florian Martin-Bariteau and Teresa Scassa. Toronto: LexisNexis Canada. https://ssrn.com/abstract=3733958

---

25 AI Act, art. 53.

26 AI Act, art. 53(1)(c)–(d).

27 AI Act, art. 53.

28 *Cofemel*, C-683/17; *Infopaq*, C-5/08.

Dornis, Tim W., and Nicola Lucchi. 2025. Generative AI and the Scope of EU Copyright Law: A Doctrinal Analysis in Light of the Referral in *Like Company v. Google*. *IIC – International Review of Intellectual Property and Competition Law* 56: 1800–1840. https://doi.org/10.1007/s40319-025-01649-7

ECIJA. 2025. General-Purpose AI Models and Opt-Outs: Legal Key for IPR Holders. Briefing note, ECIJA Madrid TMT Area, August 1. https://www.ecija.com/en/news-and-insights/modelos-de-ia-de-uso-general-y-opt-out-claves-legales-para-los-titulares-de-derechos-de-propiedad-intelectual/

Foged, Terese. 2026. Artificial Intelligence and Copyright: A Danish Perspective. International Bar Association, October 13, 2026. https://www.ibanet.org/AI-and-copyright-a-Danish-perspective

Geiger, Christophe. 2021. The Missing Goal-Scorers in the Artificial Intelligence Team: Of Big Data, the Fundamental Right to Research and the Failed Text and Data Mining Limitations in the CSDM Directive. PIJIP/TLS Research Paper Series, no. 66. Washington, DC: American University Washington College of Law. https://digitalcommons.wcl.american.edu/research/66

Geiger, Christophe. 2025. Statutory Remuneration for Generative AI. *Infojustice*, October 2, 2025. https://infojustice.org/archives/46644

Gervais, Daniel J. 2020. The Machine as Author. *Iowa Law Review* 105 (5): 2053–2106.

Guadamuz, Andres. 2021. Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works. In *Artificial Intelligence and Intellectual Property*, edited by Jyh-An Lee, Reto Hilty, and Kung-Chung Liu. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780198870944.003.0008

Havlíková, Štěpánka. 2026. Collective Licensing for Gen AI Training: Feasible or Flawed? – Part 1. *Kluwer Copyright Blog*, May 17, 2026. https://legalblogs.wolterskluwer.com/copyright-blog/collective-licensing-for-gen-ai-training-feasible-or-flawed-part-1/

Huss-Ekerhult, Anita, and Antonios Baris. 2025. Pro-Copyright, Pro-AI: The Power of Collective Licensing. *Columbia Journal of Law & the Arts* 48 (4): 416–33. https://doi.org/10.52214/jla.v48i4.13923

Jureta, Ivan. 2024. Valuation of an AI Training Dataset. Ivan Jureta (blog). https://ivanjureta.openos.me/

Marcelin, Tristan, and Filippo Cassetti. 2025. *AI and Copyright: The Training of General-Purpose AI*. At a Glance, PE 769.585. Brussels: European Parliamentary Research Service. https://www.europarl.europa.eu/RegData/etudes/ATAG/2025/769585/EPRS_ATA(2025)769585_EN.pdf

Margoni, Thomas, and Martin Kretschmer. 2022. A Deeper Look into the EU Text and Data Mining Exceptions: Harmonisation, Data Ownership, and the Future of Technology. *GRUR International* 71 (8): 685–701. https://doi.org/10.1093/grurint/ikac054

Niyompatama, Mark Jetsaphon, and Ioanna Lapatoura. 2025. Generative AI in Fashion Design Creation: A Copyright Analysis of AI-Assisted Designs. *Journal of Intellectual Property Law & Practice* 20 (10): 654–66. https://doi.org/10.1093/jiplp/jpaf045

Quintais, João Pedro. 2025. Generative AI, Copyright and the AI Act. *Computer Law & Security Review* 59: 106107. https://doi.org/10.1016/j.clsr.2025.106107

Rai, Priyanshi, Kartik Gupta, Lubna Abdelkhreim Gabralla, and Tanupriya Choudhury. 2025. A Royalty Framework for Copyright Protection and Accountability in AI-Generated Art. *Discover Computing* 28: 252. https://doi.org/10.1007/s10791-025-09766-0

Riaz, Chaudhary Hamza. 2026. The Legal Status of AI Training Data: A Cross-Jurisdictional Analysis of Copyright, Fair Use, and Text-and-Data Mining. *International Journal of Science and Research Archive* 18 (1): 935–49. https://doi.org/10.30574/ijsra.2026.18.1.0166

Rosati, Eleonora. 2020. The *Cofemel* Revolution: The New EU Copyright Standard for Applied Arts. *Journal of Intellectual Property Law & Practice* 15 (5): 348–56. https://doi.org/10.1093/jiplp/jpaa018

Sag, Matthew. 2019. The New Legal Landscape for Text Mining and Machine Learning. *Journal of the Copyright Society of the U.S.A.* 66: 291–367.

Samuelson, Pamela. 2021. Text and Data Mining of In-Copyright Works: Is It Legal? *Communications of the ACM* 64 (11): 20–22. https://doi.org/10.1145/3486628

Senftleben, Martin. 2023. Generative AI and Author Remuneration. *IIC – International Review of Intellectual Property and Competition Law* 54 (10): 1535–60. https://doi.org/10.1007/s40319-023-01399-4

Senftleben, Martin. 2026. Text and Data Mining, Generative AI, and the Copyright Three-Step Test. *IIC – International Review of Intellectual Property and Competition Law* 57 (1): 67–107. https://doi.org/10.1007/s40319-026-01680-2

Sobel, Benjamin L. W. 2017. Artificial Intelligence's Fair Use Crisis. *Columbia Journal of Law & the Arts* 41 (1): 45–97. https://doi.org/10.7916/jla.v41i1.2036

Trapova, Alina, and Péter Mezei. 2022. Robojournalism – A Copyright Study on the Use of Artificial Intelligence in the European News Industry. *GRUR International* 71 (7): 589–602. https://doi.org/10.1093/grurint/ikac038

Tyagi, Kalpana. 2024. Copyright, Text & Data Mining and the Innovation Dimension of Generative AI. *Journal of Intellectual Property Law & Practice* 19 (7): 557–70. https://doi.org/10.1093/jiplp/jpae028

Vrakas, Giorgos. 2024. A Literature Review of 'Lawful' Text and Data Mining. *Open Research Europe* 4: 153. https://doi.org/10.12688/openreseurope.18013.2

WIPO (World Intellectual Property Organization). 2025. *Copyright in the Digital Environment*. Standing Committee on Copyright and Related Rights, 49th Session, SCCR/49/6. Geneva: WIPO. https://www.wipo.int/edocs/mdocs/copyright/en/sccr_49/sccr_49_6.docx