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The future of the movie industry in the wake of generative AI: A perspective under EU and UK copyright law☆

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EXECUTIVE SUMMARY

Like all sectors, the movie industry has been both affected by and exploring potential uses of generative Artificial Intelligence (`**AI**'). On the one hand, movie studios have detected and begun to add warnings against unlicensed third-party uses of their content, including for AI training,[1] and have taken enforcement initiatives through court action. On the other hand, the use of AI within and by the industry itself has been growing. Regarding the latter, some have emphasised the opportunities presented by the implementation of AI, including by advancing claims that AI tools can offer a `purer' form of expression. Others have instead warned against the potential displacement of industry workers, including workers employed in technical roles and younger and emerging actors.

Against the background illustrated above, this study maps and critically evaluates relevant issues facing the development, deployment, and use of AI models from a movie industry perspective. The legal analysis is conducted having regard to EU and UK copyright law and is divided into three parts:

- **Input/AI training**: By considering relevant legal restrictions applicable to the training of AI models on protected audiovisual content, the border between lawful unlicensed uses and restricted uses is drawn;
- **Protectability of AI-generated outputs**: Turning to the output generation phase, the protectability of such outputs is considered next, by focusing in particular on the requirements of authorship and originality under EU and UK copyright law;
- **Legal risks and potential liability stemming from the use of third-party AI models for output generation**: Still having regard to the output generation phase, relevant legal issues that might arise having regard to the use of AI models that `regurgitate' third-party training data at output generation are considered, alongside the question of style protection under copyright.

The main conclusions are as follows:

- **Input/AI training**: Insofar as model training on third-party protected content is concerned, there are no exceptions under EU/UK law that fully cover the entirety of these processes. As a result, lacking legislative reform, the establishment of a licensing framework appears unavoidable for such activities to be deemed lawful;
- **Protectability of AI-generated outputs**: The deployment of AI across various phases of the creative process does not render the resulting content unprotectable, provided that human involvement and control remain significant throughout, with the result that AI is relied upon as a tool that aids – rather than replaces – the creativity of industry workers.

☆ This study was prepared at the request of 4iP Council, but all views and errors are solely attributable to the Author. All internet sources were last accessed 16 September 2025.

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[1] W Cho, 'Universal Pictures to Big Tech: We'll sue if you steal our movies for AI' (6 August 2025) The Hollywood Reporter, available at https://www.hollywoodreporter.com/business/business-news/universal-pictures-big-tech-well-sue-if-you-steal-movies-ai-1236337712/.

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- **Legal risks and potential liability stemming from the use of third-party AI models for output generation**: The use of AI models that generate infringing outputs, such as by regurgitating input data or merely imitating style, may trigger the application of exclusive rights under copyright and related rights. The resulting liability may vest with the user of such models, as well as the model developer/provider. The latter aspect means that terms that exclude any such liability may ultimately be found to be unenforceable against users and ineffective against rightholders.

1. Introduction: Generative AI and the movie industry

Like all sectors, the movie industry has been both affected by and exploring potential uses of generative Artificial Intelligence (`**AI**'). Insofar as the former is concerned, movie studios have also detected and initiated litigation over the unauthorised use of their protected content in the training of AI models. For example, Disney and Universal have recently filed a complaint in the US District Court for the Central District of California, in which they claim that Midjourney seeks to reap their creative investment by selling an AI image-generating service "that functions as a virtual vending machine, generating endless unauthorized copies of Disney's and Universal's copyrighted works"[2] (Fig. 1). Warner Bros. Discovery has sued Midjourney before the same court too, claiming that the defendant company "thinks it is above the law" by selling "a commercial subscription service […], powered by artificial intelligence ("AI") technology, that was developed using illegal copies of Warner Bros. Discovery's copyrighted works", including Superman, Batman, Wonder Woman, Flash, Tweety, Bugs Bunny, and Scooby-Doo[3] (Fig. 2). Another lawsuit has been filed against Minimax.[4] Somewhat related to this, the recent unveiling of OpenAI's GPT-4o and the resulting possibility of creating images in the style of Studio Ghibli's animated productions has raised questions related to the lawfulness of model training with content whose use has not been authorised by relevant rightholders.[5]

Movie industry workers have not stayed still either. Not only have they taken action against the alleged unauthorised appropriation of their personal attributes (including voice[6]) by model developers, but also against studios regarding the perceived threat that the adoption and integration of AI within the industry poses to their professional livelihood. The latter was for example a key issue in the context of the 2023 Writers Guild of America and SAG-AFTRA strikes targeting movie studios,[7] as well as the 2024–2025 SAG-AFTRA strike involving video game actors' strike.[8] Some movie directors have been also taking a position regarding the use of AI that has been described along the lines of a "pro-human vehemence".[9] The ever-increasing implementation of AI, including actors' avatars for the purpose of advertising and marketing, has been also resulting in new types of contracts, the fairness of which is the subject of discussion.[10]

The use of AI by movie studios is indeed growing overall[11] (with guidance on content production entailing the use of AI also being released publicly[12]), whether it is to achieve results usually made possible by special effects (as was recently the case in Netflix's 2025 series *The Eternaut*), or to save on time and costs,[13] or to alter the accent and appearance of actors playing the same character spanning several different decades. The former was for example what was done for Adrien Brody's spoken Hungarian in 2025 Oscar-winning movie *The Brutalist*; the latter was implemented in, e.g., the Robert Zemeckis–directed 2024 movie *Here*, starring Tom Hanks and Robin Wright (Fig. 3).

On the one hand, some have stressed the opportunities presented by the implementation of AI, including by advancing claims, like those made by AI video studio The Dor Brothers,[14] that AI tools "are actually a purer form of expression, offering the most direct link between the artist's brain and the end result, without the compromises required in large productions or the constraints that come with complex shoots".[15] It is probably along these lines (as well as in the aftermath of the Oscar award won by Adrien Brody for his AI-altered performance in *The Brutalist*) that the Academy of Motion Picture Arts and Sciences decided in spring 2025 that – while consideration of human involvement remains

[2] *Disney Enterprises, Inc., et al. v. Midjourney, Inc.*, C.D. Cal. Case No. 25-5275 (filed 11 June 2025).

[3] Warner Bros. Entertainment Inc, *et al. v. Midjourney, Inc.*, C.D. Cal. Case No. 2:25-cv-08376 (filed 4 September 2025).

[4] *Disney Enterprises, Inc., et al. v. Minimax, et al.*, C.D.Cal. Case No. 25-8768 (filed 16 September 2025).

[5] T Spangler, 'OpenAI CEO responds to ChatGPT users creating Studio Ghibli-style AI images' (26 March 2025), Variety, available at https://variety.com/2025/digital/news/openai-ceo-chatgpt-studio-ghibli-ai-images-1236349141/.

[6] *Paul Lehrman, et al., v. Lovo, Inc.*, S.D.N.Y. 24-CV-3770 (JPO) (filed 10 July 2025).

[7] W Lee - M James, 'WGA and the studios reach tentative deal to end writers' strike' (24 September 2023), Los Angeles Times, available at https://www.latimes.com/entertainment-arts/business/story/2023-09-24/writers-strike-over-wga-studios-reach-deal-actors; M James – W Lee – C Carras, 'SAG-AFTRA committee approves deal with studios to end historic strike' (8 November 2023) Los Angeles Times, available at https://www.latimes.com/entertainment-arts/business/story/2023-11-08/actors-strike-sag-aftra-amptp-contract-deal-ai-streaming.

[8] R Ugwu, 'Video game actors end contract dispute over A.I.' (10 July 2025) The New York Times, available at https://www.nytimes.com/2025/07/10/arts/video-game-actors-contract-ai.html.

[9] S Zeitchik, 'The AI movie factory is ramping up' (10 September 2025) The Hollywood Reporter, available at https://www.hollywoodreporter.com/business/digital/ai-movie-factory-is-ramping-up-1236366567.

[10] See, e.g., S Maheshwari 'He sold his likeness. Now his avatar is shilling supplements on TikTok' (17 August 2025) The New York Times, available at https://www.nytimes.com/2025/08/17/business/tiktok-ai-avatars.html.

[11] See generally: B Dodman – D Rich, 'Cannes 2025: Cinema urged to ride 'unstoppable' AI wave as critics warn of slippery slope' (19 May 2025), France 24, available at https://www.france24.com/en/culture/20250519-cannes-2025-film-industry-urged-ride-unstoppable-artificial-intelligence-critics-warn-slippery-slope-ai; S Zeitchik, 'Rise of the machines: Inside Hollywood's AI civil war' (16 July 2025) The Hollywood Reporter, available at https://www.hollywoodreporter.com/business/digital/ai-future-hollywood-creativity-1236315046/; A Nicoud, 'Rewriting the script—and data—for AI in the movies' (25 July 2025) IBM, available at https://www.ibm.com/think/news/moonvalley-ethical-ai-movies. Specifically regarding the UK movie sector, see A Finney – B Tarran – R Coupland, *AI in the Screen Sector: Perspectives and Paths Forward A Foresight Lab Report* (June 2025), available at https://core-cms.bfi.org.uk/media/40967/download, §1.2.

[12] Netflix, *Using Generative AI in Content Production*, available at https://partnerhelp.netflixstudios.com/hc/en-us/articles/43393929218323-Using-Generative-AI-in-Content-Production.

[13] But see S Lake, 'TV and movies are so expensive to produce not even AI will make a significant financial difference—and the streaming wars are to blame' (24 June 2025) Fortune, available at https://fortune.com/2025/06/24/tv-movies-production-ai-streaming-wars/, submitting that the deployment of AI tools would not generally reduce production costs.

[14] See https://www.thedorbrothers.com/.

[15] SA Thompson, 'How a video studio embraced A.I. and stormed the Internet' (18 July 2025) The New York Times, available at https://www.nytimes.com/2025/07/18/technology/dor-video-studio-ai.html.

Fig. 1. Examples of outputs generated by Midjourney (source: Case No. 2:25-cv-05275).

key – movies containing parts generated with the aid of AI are also eligible for Oscar nominations and awards,[16] as well as having dedicated contests like the Reply AI Film Festival.[17] On the other hand, critics have emphasised the potential displacement of industry workers, including workers employed in technical roles[18] and younger and emerging actors.[19]

Against the background illustrated above, this study intends to map and critically evaluate relevant legal issues facing the development, deployment, and use of AI models from a movie industry perspective. The principal objective is thus to conduct a survey of the main legal issues facing copyright, AI development, and the movie industry, rather than undertaking an in-depth discussion of the various matters individually considered. The analysis is conducted having regard to EU and UK copyright law and is divided into three parts:

- Input/AI training: By considering relevant legal restrictions applicable to the training of AI models on protected audiovisual content, Part 2 seeks to draw the border between lawful unlicensed uses and restricted uses. In so doing, it inter alia considers the interplay between available exceptions under EU and UK law, including but not limited to those allowing text and data mining (`**TDM**'), as well as the relevance of the recently adopted Regulation 2024/1689[20] (`**AI Act**');
- Protectability of AI-generated outputs: Turning to the output generation phase, Part 3 considers the protectability of such outputs, focusing particularly on the requirements of authorship and originality under EU and UK copyright law. In relation to the latter, no significant attention is devoted to s9(3) of the Copyright, Designs and Patents Act (`**CDPA**'). This is so considering it more appropriate to

[16] L McMahon, 'Films made with AI can win Oscars, Academy says' (22 April 2025) BBC, available at https://www.bbc.com/news/articles/cqx4y1lrz2vo.

[17] See https://www.reply.com/en/artificial-intelligence/reply-ai-film-festival . See also F Cella, 'Gabriele Muccino premia a Venezia i film fatti con l'AI: <<Una rivoluzione, come il passaggio dal muto al sonoro>>' (6 September 2025) Corriere della Sera, available at https://tinyurl.com/yeukz5sm, with director Gabriele Muccino describing the implementation of generative AI in movies as a shift comparable to that caused by the introduction of synchronised sound.

[18] M Towfighi, 'Generative A.I. destroys a building in its Netflix debut' (18 July 2025) The New York Times, available at https://www.nytimes.com/2025/07/18/arts/television/netflix-ai-eternaut.html.

[19] N Barber, 'New Tom Hanks film Here and the unsettling 'de-aging' technology keeping stars forever young' (2 July 2024) BBC, available at https://www.bbc.com/culture/article/20240701-new-tom-hanks-film-here-and-the-unsettling-new-de-aging-technology-keeping-stars-forever-young.

[20] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L 2024/1689, 12 July 2024.

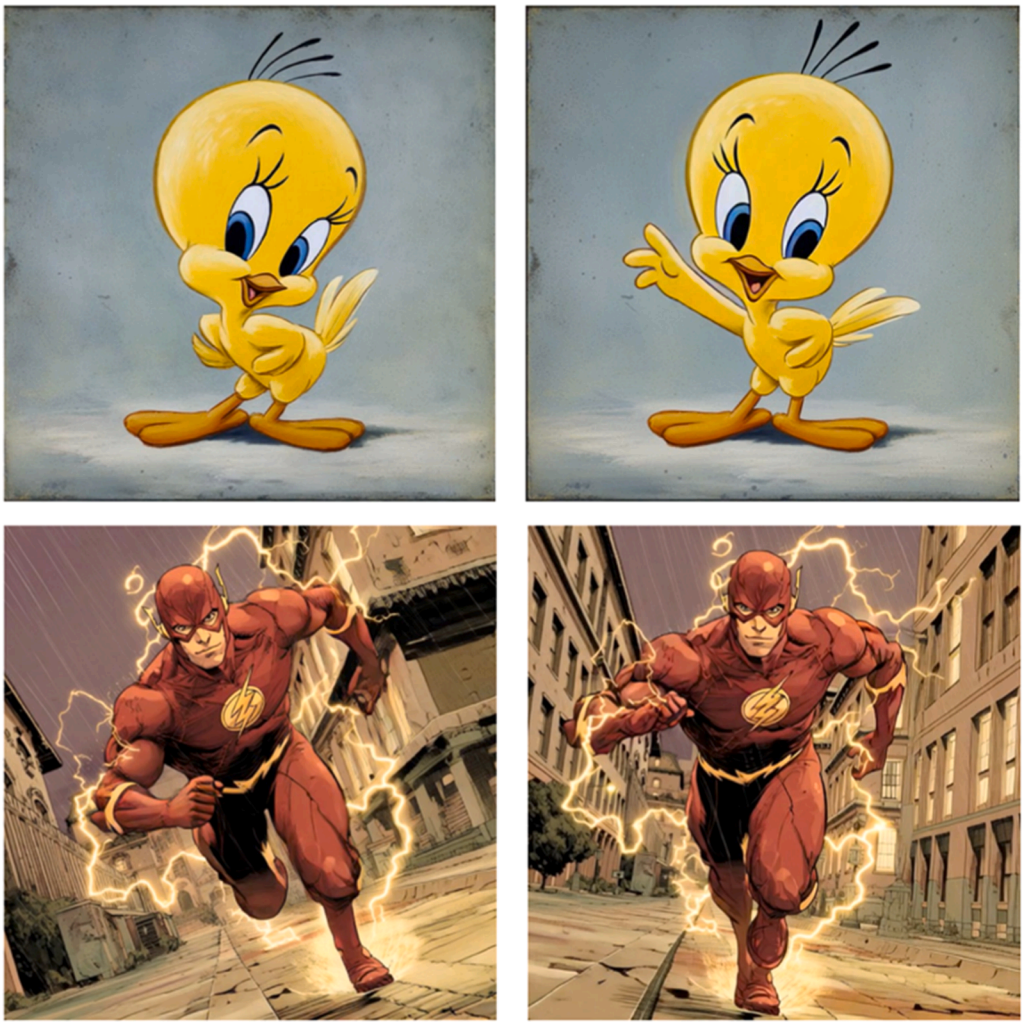

Fig. 2. Examples of outputs generated by Midjourney (source: Case No. 2:25-cv-08376).

characterise such a provision as a sui generis or related right rather than `copyright',[21] as well as the abundance of literature vis-à-vis the very limited consideration thereof in case law to date[22];

- Legal risks and potential liability stemming from the use of third-party AI models for output generation: still having regard to the output generation phase, Part 4 reviews relevant legal issues that might arise having regard to the use of AI models that `regurgitate' third-party training data at output generation and the allocation of any resulting liability under copyright and related rights. Prior to this, a discussion of the protectability of styles under copyright and related rights and the relevance of style `imitation' under the EU and UK right of reproduction is also undertaken.

As stated, the analysis is limited to copyright and related rights under EU and UK law. It is nevertheless clear that the phases described above raise legal issues that considerably exceed this relatively narrow focus, including consideration of the protection of likeness and other personal attributes. Such a limitation appears, however, justified on consideration of the substantial divergences in national laws across Europe regarding the tools available to protect one's own persona.

While an EU level playing field has been partly established through the harmonisation of privacy and data protection laws, self-standing rights over one's own image either are either not recognised as such (one such example being the UK[23]) or, even if they are, their resulting scope varies significantly, e.g., having regard to: beneficiaries (only natural or also legal persons, if not – in some jurisdictions – even cultural heritage artefacts); scope (only actual and direct use of someone's likeness and other personal attributes, or also evocation); duration (life of the person, post-mortem protection, or even unlimited term); exceptions; enhanced protection of certain persons (celebrities as opposed to lay people, children vis-á-vis adults) or certain settings and situations (private activities as opposed to public activities and events); and available remedies. Furthermore, protection in this area may also be

[21] See generally L Bently and Others, *Intellectual Property Law* (OUP:2022) 6th edn, pp. 127-128.

[22] For example, in *THJ Systems Limited & Anor v Daniel Sheridan & Anor* [2023] EWCA Civ 1354, Arnold LJ did not deem it necessary to address protectability under s9(3) CDPA given the identifiability of a human author. In literature see *ex multis* P Goold, 'The curious case of computer-generated works under the Copyright, Designs and Patents Act 1988' (2021) 2/2021 IPQ 120, and J Parish, 'Time to repeal section 9(3) of the Copyright, Designs and Patents Act 1988: New insights from the lobbying and drafting history behind the infamous UK computer-generated works regime' (forthcoming) IPQ, pre-print at https://kclpure.kcl.ac.uk/portal/en/publications/time-to-repeal-section-93-of-the-copyright-designs-and-patents-ac.

[23] In *Robyn Rihanna Fenty v Arcadia Group Brands Ltd (T/A Topshop)* [[2015] EWCA Civ 3, Kitchin LJ (as he then was) unambiguously held (at para 29): "There is in English law no "image right" or "character right" which allows a celebrity to control the use of his or her name or image."

Fig. 3. Younger versions of the characters played by Tom Hanks and Robin Wright in *Here* (source: Eagle Pictures).

achieved through general actions which are also unharmonised at the regional level (including passing off/unfair competition, breach of confidence/misuse of private information, etc.), as well as new national rights like those proposed in certain EU Member States.[24]

2. Mapping of rights under copyright and related rights in the use of protected content for AI training purposes

AI training requires access to large amounts of data.[25] When the data in question is sourced from content protected by copyright and related rights, legal restrictions under the respective legal regimes will apply. To exemplify: the feeding of a model with a movie entails at least an act of reproduction that is relevant under copyright: the work in question qualifies as a whole as a dramatic work, which also incorporates other types of works, whether of a musical (e.g., the soundtrack) or literary (e.g., the script) kind. Furthermore, related rights will be also engaged by such activity, e.g., those enjoyed by performers, phonogram producers, and film producers. Acts of extraction that are relevant under the sui generis database right might also be undertaken if the content in question is, e.g., part of a movie library.[26]

Although some commentators have questioned the very relevance of copyright and related rights to AI training, considering that copyright at least would not restrict non-expressive uses of works and this would be what AI training consists of,[27] today such a position is untenable. As the US Copyright Office also recently acknowledged, "[t]he steps required to produce a training dataset containing copyrighted works clearly implicate the right of reproduction" and "[t]he training process also implicates the right of reproduction."[28]

Furthermore, over the past several years, jurisdictions around the world have legislated, or considered legislating, to introduce specific exceptions that allow, under certain conditions, TDM activities in relation to content protected by copyright, related rights, and sui generis rights. The former group includes Japan (Article 30–4 of the Copyright Act), Singapore (Section 244 of the Copyright Act 2021), the United Kingdom (`**UK**') during its tenure as an EU Member State (s29A CDPA), other EU Member States,[29] and the EU through the adoption of Directive 2019/790[30] (`**DSMD**'). The latter group encompasses, as examples,

[24] This is the case of Denmark, where the proposal for the adoption of a new right has been recently tabled by the Government: Forslag til Lov om ændring af lov om ophavsret (Indførelse af en præstationsbeskyttelse og beskyttelse mod digitalt genererede efterligninger mv, KUU Alm.del - Bilag 232 Kulturudvalget 2024-25, available at https://www.ft.dk/samling/20241/almdel/kuu/bilag/232/3050901.pdf.

[25] For a technical discussion of model training, see generally: A Guadamuz, 'A scanner darkly: Copyright liability and exceptions in Artificial Intelligence inputs and outputs' (2024) 73(2) GRUR Int 111, p. 112-114; M Borghi and Others, *Study: The Development of Generative Artificial Intelligence from a Copyright Perspective* (European Union Intellectual Property Office: May 2025) available at https://www.europarl.europa.eu/meetdocs/2024_2029/plmrep/COMMITTEES/JURI/DV/2025/05-12/2025.05.12_item6_Study_GenAIfromacopyrightperspective_EN.pdf, §2.1; N Lucchi, *Generative AI and Copyright – Training, Creation, Regulation* (July 2025) PE 774.095, available at https://www.europarl.europa.eu/RegData/etudes/STUD/2025/774095/IUST_STU(2025)774095_EN.pdf, §2.1.1.

[26] For a more detailed discussion of the scope of protection of the EU sui generis database right, as shaped by the Court of Justice of the European Union (`**CJEU**'), see E Rosati, *Copyright in the Digital Single Market. Article-by-Article Commentary to the Provisions of Directive 2019/790* (OUP:2021), p. 52-54.

[27] See, e.g., MW Carroll, 'Copyright and the progress of science: Why text and data mining is lawful' (2019) 59 UC Davis Law Rev 893, and MA Lemley – B Casey, 'Fair learning' (2021) 99 Tex L Rev 743.

[28] United States Copyright Office, *Copyright and Artificial Intelligence – Part 3: Generative AI Training (Pre-publication Version)* (May 2025), available at https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-3-Generative-AI-Training-Report-Pre-Publication-Version.pdf, p. 26-27.

[29] Further to the UK initiative, other Member States (France, Estonia, Germany, Ireland) also considered legislating or legislated in the field of TDM.

[30] 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, *OJ L 130, 17.5.2019, p. 92–125.* Article 25 and recital 5 DSMD expressly allow Member States to adopt or maintain broader provisions, compatible with the exceptions and limitations provided for in Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, OJ L 77, 27 March 1996, p. 20–28 ('Database Directive') and 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, p. 10–19 ('InfoSoc Directive'), including exceptions and limitations allowing TDM pursuant to Article 6(2)(b) of the former and Article 5(3)(a) of the latter.

Hong Kong[31] and the UK.[32]

Although, as will be explained, AI training is not synonymous with TDM, the latter is part of the former. TDM activities, defined as "any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations" (Article 2 No 2 DSMD), are an essential step in any AI development project. If AI training was not relevant under copyright and related rights, then there would have been no need to introduce specific exceptions allowing part of relevant activities under certain conditions.[33]

Having noted the above, a distinction also needs to be made between the input/training and the output generation phase, with the latter entailing content – whether it is text, audio, image, or video – realised in response to instructions (prompts) given by users. What follows is a review of relevant restricted acts under copyright and related rights with regard to these two key phases. Ultimately it is shown that no TDM exception under UK and EU law encompasses the output generation phase.

a. *Rights under copyright and related rights*

As discussed in greater detail elsewhere,[34] during the text and data mining (**TDM**) activities that are preparatory to the model training, the main acts under UK and EU law are those of extraction (if the data is incorporated in a database) and reproduction. With regard to the latter, it is worth recalling that, like all exclusive rights, the notion of `reproduction' must also receive a broad construction and interpretation, aligning with relevant statutes. At the international level, Article 9(1) of the Berne Convention mandates the protection of reproduction "in any manner or form". The Agreed Statements to the WIPO Internet Treaties further clarify that the right "fully appl[ies] in the digital environment".[35] Article 2 of the InfoSoc Directive, which was adopted to implement the WIPO Internet Treaties (recitals 15 and 61) into the EU legal order, states that the right encompasses "the direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part" of works and other protected subject-matter.

At the EU level, the CJEU has indicated that a different test for actionable reproduction must be adopted as between copyright and, at least, the phonogram producer's related right. In *Infopaq I*, C-5/08, the Court introduced an EU-wide test of actionable reproduction for authorial works[36]: there is reproduction in part when the part of a work that has been copied is original in the sense that it is its author's own intellectual creation.[37] This broad understanding – which extends to the copying of short extracts of a work,[38] so long as the choice, sequence and combination of elements is sufficiently original[39] – is in line with the objective of the InfoSoc Directive to introduce a high level of protection of authors.[40] Therefore, the prima facie infringement test under copyright requires to determine, first, if the claimant's work or part thereof is protected and, secondly, if the defendant took a protected work or part thereof. The appropriateness of such an approach has also been upheld by members of the UK judiciary writing extra-judicially,[41] as well as by UK courts post-Brexit. In *Sheeran*, Zacaroli J confirmed that:

> To amount to an infringement […] the copying must be of either the original work or a "substantial part" of it […] This is a qualitative, not quantitative, question. The test is whether the part in question contains elements which are the expression of the intellectual creation of the author of the work […] The essential consideration is to ask whether a defendant has taken that which conferred originality on the claimant's copyright work (or a substantial part of it).[42]

In *Pasternak*, Johnson J approved this approach and regarded the cited passage from *Sheeran* as summarising the test of infringement in a useful and succinct fashion.[43]

The notion of reproduction `in part' as adopted by the CJEU in *Infopaq I*, C-5/08 in relation to works in Article 2(a) of the InfoSoc Directive does not extend to the other subject-matter listed in that provision. That is because the right of reproduction under related rights (as opposed to copyright) protects "not intellectual creation but financial investment".[44] The traditional and widely accepted view is that related rights are not subject to any threshold condition.[45] In turn, any reproduction of protected subject-matter would be actionable.[46] Nevertheless, in *Pelham I*, C-476/17, the CJEU adopted an admittedly odd test to determine actionable reproduction of the phonogram producer's related right vis-à-vis third-party freedom of artistic expression. The Court ruled that any reproduction of a phonogram is actionable insofar as it is *recognizable to one's ear* and the part reproduced *reflects the*

[31] Hong Kong has not yet reformed its copyright law, despite that reform bills were introduced in both 2011 and 2014. In 2024, the Hong Kong Government issued yet another consultation paper seeking the input of stakeholders on a number of positions, including a new TDM exception: Commerce and Economic Development Bureau Intellectual Property Department, *Copyright and Artificial Intelligence – Public Consultation Paper* (July 2024), available at https://www.ipd.gov.hk/filemanager/ipd/en/share/consultation-papers/Eng-Copyright-and-AI-Consultation-Paper-20240708.pdf.

[32] See E Rosati, 'Copyright exceptions and fair use defences for AI training done for 'research' and 'learning', or the inescapable licensing horizon' (forthcoming) EJRR, advance access at https://doi.org/10.1017/err.2025.10035, §II.2.

[33] Cf critically M Senftleben, 'Generative AI and author remuneration' (2023) 54(10) IIC 1535, 1542-1543, and literature referenced there.

[34] E Rosati, *The Exception for Text and Data Mining (TDM) in the Proposed Directive on Copyright in the Digital Single Market - Technical Aspects* (February 2018), PE 604.942, available at http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/604942/IPOL_BRI(2018)604942_EN.pdf.

[35] WIPO Copyright Treaty, Agreed Statements concerning Article 1(4); WIPO Performances and Phonograms Treaty, Agreed statement concerning Articles 7, 11 and 16.

[36] In its subsequent ruling in *Football Association Premier League*, C-403/08 and C-429/08, EU:C:2011:631, para 154, the CJEU confirmed that the concept of 'reproduction' must be given an autonomous and uniform interpretation throughout the EU.

[37] *Infopaq I*, C-5/08, EU:C:2009:465, para 39.

[38] Ibid, paras 47 and 49-50.

[39] Ibid, para 45.

[40] Ibid, paras 40-43. See also *Nintendo and Others*, C-355/12, EU:C:2014:25, paras 21-22.

[41] R Arnold, 'Paintings from photographs: a copyright conundrum' (2019) 50 (7) IIC 860, p. 875.

[42] *Sheeran & Ors v Chokri & Ors* [2022] EWHC 827 (Ch) (06 April 2022), para 21.

[43] *Pasternak v Prescott* [2022] EWHC 2695 (Ch) (25 October 2022), para 107. The same was reiterated more recently in *Fay Evans v John Lewis Plc and DBB UK Ltd* [2023] EWHC 766 (IPEC), para 40.

[44] Opinion of Advocate General Szpunar in *Pelham I*, C-476/17, EU:C:2018:1002, para 28.

[45] See (albeit critically) PB Hugenholtz, 'Neighbouring rights are obsolete' (2019) 50(8) IIC 1006, p. 1008-1010, and C Sganga, 'The many metamorphoses of related rights in EU copyright law: Unintended consequences or inevitable developments?' (2021) 70(9) GRUR Int 821, p. 827.

[46] Such an approach appears consistent with the traditional view under UK, even though the CDPA does not recognize related rights as such. Section 1(1)(a) CDPA provides that literary, dramatic, musical or artistic works are protected if they are 'original'. There is no mention of originality for the other subject-matter protected by the CDPA as 'copyright' – that is: sound recordings, films or broadcasts, and the typographical arrangement of published editions. The explanation given for this choice is that, while literary, dramatic, musical or artistic works may be classified as contents (works that are protected regardless of the signals by which they are carried), sound recordings, films or broadcasts, and the typographical arrangement of published editions are signals (what is protected is the signal itself, as distinct from the content it carries): see R Arnold, 'Content copyrights and signal copyrights: the case for a rational scheme of protection' (2011) 1(3) QMJIP 272, p. 276.

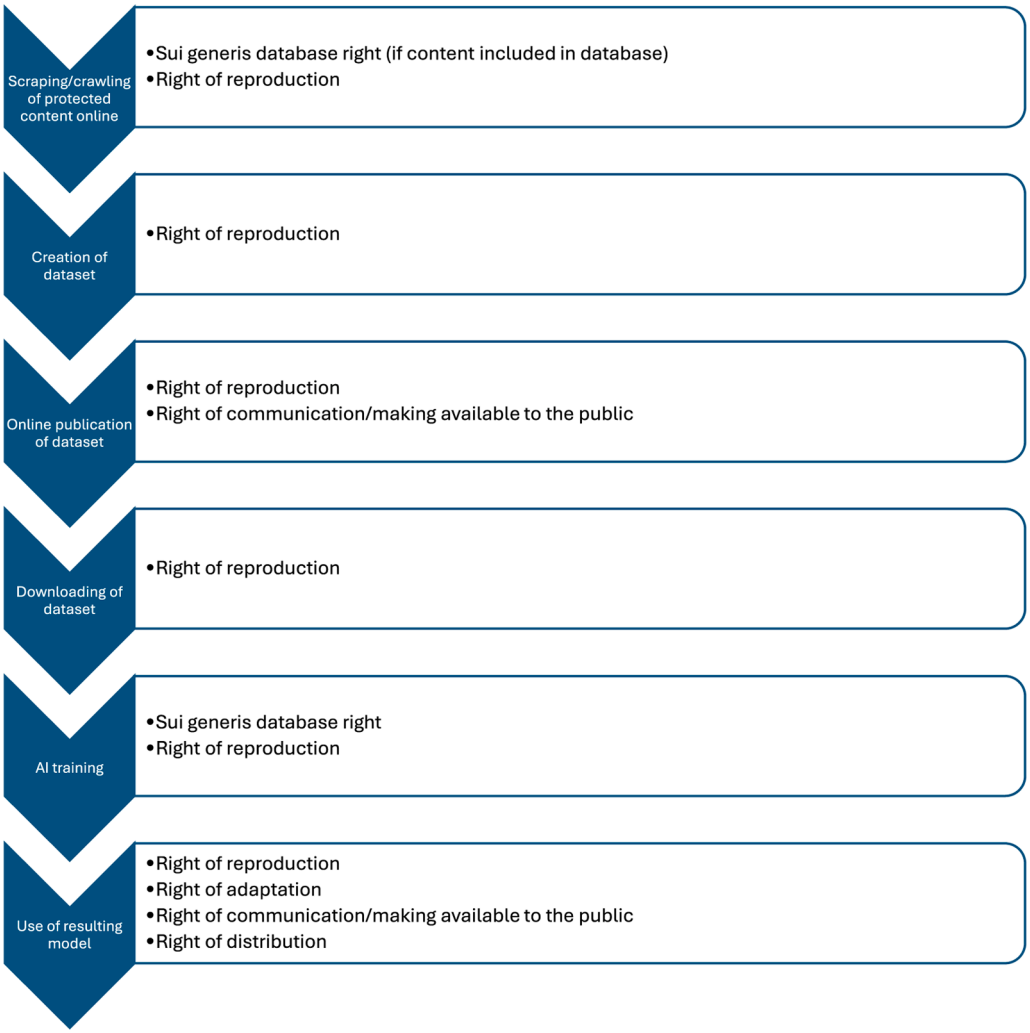

Fig. 4. Potentially relevant acts under copyright, related and sui generis rights engaged in the development, offering and use of an AI model.

investment made by the rightholder. This finding would be consistent with the objective of guaranteeing a high level of protection and safeguarding the specific objective of the exclusive right of the phonogram producer.[47]

Despite the *specific* context of *Pelham I*, C-476/17, some commentators have suggested that the test of recognisability could be generally applicable as a limitation to the scope of the right of reproduction, at least for rightholders other than authors.[48] This suggestion is flawed and should be rejected, whether it is in relation to other related rights or copyright. The latter should be particularly the case when the CJEU decides the joined referrals *Mio*, C-580/23 and *konektra*, C-795/23 concerning the authorial right of reproduction. For reasons discussed elsewhere,[49] the Court should reject the recommendation made by Advocate General (`**AG**') Szpunar in his Opinion that "only the recognisable reproduction of creative elements constitutes an infringement of copyright".[50]

In all of this, the rights to control extraction from a database and reproduction are not the only rights under copyright and related rights that may be engaged during AI training processes. Acts of communication and making available to the public may also be undertaken, as demonstrated by the factual background at issue in the *LAION* case and the problematic lack of consideration thereof by the Hamburg court.[51] If an undertaking/entity performed the scraping of online content (e.g., copyright works and/or protected subject-matter from, e.g., an online movie library) for the purpose of TDM, subsequently created a dataset (which would incorporate and/or link to protected content hosted on third-party websites), and made such a dataset available online for third parties to use, all of this would entail the undertaking of restricted acts other than those of extraction and reproduction for the purpose of TDM, as well as it being also potentially relevant under contractual terms of the websites where the content that has been scraped is published. Further restricted acts would indeed be performed for AI training

[47] *Pelham I*, C-476/17, EU:C:2019:624, paras 29-30.

[48] K Grisse, 'On the significance of (un)recognisability for the reproduction right in European copyright law' (2022) 44(2) EIPR 78.

[49] E Rosati, 'Of tables and other furniture: AG Szpunar advises CJEU on originality (but also proposes adoption of recognizability test for infringement)' (8 May 2025) The IPKat, available at https://ipkitten.blogspot.com/2025/05/of-tables-and-other-furniture-ag.html

[50] Opinion of Advocate General Szpunar in *Mio/konektra*, C-580/23 and C-795/23, EU:C:2025:330, para 70.

[51] LG Hamburg, 310 O 227/23, on which see further E Rosati, 'Is text and data mining synonymous with AI training?' (2024) 19(12) JIPLP 851, and E Rosati, 'Copyright exceptions and fair use defences for AI training done for 'research' and 'learning', or the inescapable licensing horizon' (forthcoming) EJRR, advance access at https://doi.org/10.1017/err.2025.10035, §III.1.

Table 1
TDM E&Ls under UK and EU law.

Jurisdiction	Provision	Restrictions on beneficiaries?	Acts covered	Does the provision extend to output generation?	Purpose-specific	Express limitation to non-commercial use	Express requirement of lawful access	Express possibility of reservation (opt-out)
UK	Sec. 29A CDPA	No	Reproduction	No	Yes (research)	Yes	Yes	No
EU	Art. 3 DSMD	Yes (research organizations and cultural heritage institutions)	Extraction and reproduction	No	Yes (scientific research)	No	Yes	No
EU	Art. 4 DSMD	No	Extraction and reproduction	No	No	No	Yes	Yes

purposes and, thus, the development of an AI model. They would at least be:

i. A new act of reproduction by that undertaking/entity when uploading the resulting dataset online;
ii. An act of communication/making available to the public by that undertaking/entity by displaying publicly on the internet that dataset; and
iii. An act of reproduction by third parties when at least downloading the dataset for AI training purposes.

As will be explained further in what follows in Part 4, memorisation of training data and subsequent regurgitation during the output generation phase could also occur, though on this front there is some disagreement among technical commentators. All of this would entail the further undertaking of new acts of reproduction and, depending on the circumstances, adaptation, communication/making available to the public, and distribution through output generation, none of which would be covered by any TDM exception. A simplified representation of *potentially* relevant rights engaged under copyright, related and sui generis right is provided in Fig. 4.

At the time of writing, a referral for a preliminary ruling (*Like Company v Google*, C-250/25) is pending before the CJEU asking inter alia whether the display, in a chatbot, of content that is identical to the protected content found on a publisher's website is an act of reproduction and making available to the public and, if so, whether it matters that a response provided by a chatbot is the result of a process in which the chatbot merely predicts the next word based on observed patterns.

As is discussed elsewhere,[52] if the content in question is protected and the derivation is demonstrated, then – under EU law – the answer appears to be that the operation of a chatbot does likely engage both the rights of reproduction and communication/making available to the public. As to whether prediction makes a difference, the answer might be in the negative if the result of such an activity was the copying of third-party protected content – whether in verbatim or altered form. Whether that is the case will obviously depend on factual circumstances: not every `match' in the resulting prediction will be actionable.

b. TDM exceptions in comparative focus

As mentioned, over the past several years, some jurisdictions around the world have legislated to allow, under certain conditions, the undertaking of TDM activities without a licence. The scope of the EU and UK TDM exceptions is *limited* to restricted acts, as shown in Table 1.

It should be noted at the outset that the question of whether such provisions would apply to AI training has given rise to contrasting positions. Among the questions referred in the already mentioned pending CJEU case *Like Company v Google*, C-250/25, there is one asking about the applicability of Article 4 DSMD to unlicensed AI training.

Considering the discussion at the time when the DSMD was still being negotiated, it was already clear back then that TDM would be relevant to AI development.[53] The AI Act has also settled this issue by linking the DSMD's TDM exceptions to the development of general-purpose AI models, including generative AI models.[54] Importantly, the AI Act recognizes the relevance of TDM to AI training, but in no way does it indicate that TDM is synonymous with AI training or that everything in-between TDM and AI training is covered by Articles 3 or 4 DSMD. So, as explained, the undertaking – following the completion of TDM activities covered by relevant exceptions – of, e.g., new acts of

[52] E Rosati, 'CJEU receives first referral on chatbots and copyright' (26 May 2025) The IPKat, available at https://ipkitten.blogspot.com/2025/05/cjeu-receives-first-referral-on.html. On the referral, see also TW Dornis – N Lucchi, 'Generative AI and the scope of EU copyright law: A doctrinal analysis in light of C-250/25' (forthcoming) IIC, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5391439, and J Hoffmann, 'Technological determination of AI-relevant press and copyright law and generative content's relevance for EU competition law – The referral in Case C-250/25, *Like Company v. Google Ireland Ltd.*' (27 August 2025) Max Planck Institute for Innovation & Competition Research Paper No. 25-19, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5411443.

[53] On the history of Article 4 of the DSM Directive, see further E Rosati, *Copyright in the Digital Single Market. Article-by-Article Commentary to the Provisions of Directive 2019/790* (OUP:2021), p. 63-68. See also: C Villani and Others, *Donner un Sens à l'Intelligence Artificielle: Pour une Stratégie Nationale et Européenne* (8 September 2017 – 8 March 2018), available at https://www.vie-publique.fr/files/rapport/pdf/184000159.pdf, p. 35-36, and S Dusollier, 'The 2019 Directive on Copyright in the Digital Single Market: Some progress, a few bad choices, and an overall failed ambition' (2020) 57 CMLRev 979, p. 984; GB Abbamonte, 'The application of the copyright TDM exceptions and transparency requirements in the AI Act to the training of generative AI' (2024) 46 (7) EIPR 479, p. 479; H Hamann, 'Artificial Intelligence and the law of machine-readability: A review of human-to-machine communication protocols and their (in)compatibility with Article 4(3) of the Copyright DSM Directive' (2024) 15 (2) JIPITEC 102, p. 105-106, all noting that at that time the link between provisions allowing unlicensed TDM and AI development was already clearly understood.. Nevertheless, according to some social media reports, the Acting Head of the Copyright Unit at the European Commission, Emmanuelle Du Chalard, spoke publicly of how the TDM exceptions in the DSM Directive were drafted with AI in mind, but not generative AI: see https://www.linkedin.com/feed/update/urn:li:activity:7202919364067479552/. Also opining that the EU TDM provisions were not meant to encompass unlicensed AI training, see TW Dornis, 'The training of generative AI is not text and data mining' (2025) 47 (2) EIPR 65, pp. 67-69, and N Lucchi, *Generative AI & Copyright: Balancing Creative Rights, Legal Integrity, and Accountability in the AI Age* (4 June 2025), available at https://www.europarl.europa.eu/committees/en/generative-ai-and-copyright/product-details/20250603WKS06402.

[54] In substantially the same sense, see also M Senftleben, 'AI Act and author remuneration – A model for other regions? (24 February 2024), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4740268, p. 7-9, and A Peukert, 'Copyright in the Artificial Intelligence Act – A primer' (2024) 73(6) GRUR Int 497, p. 503.

reproduction and communication/making available to the public, would infringe third-party rights if done without a licence or outside the scope of application of other exceptions.

In any event, as discussed in greater detail elsewhere,[55] currently under EU and UK copyright law there is no exception, including besides those for TDM and having regard to research- and education-focused defences, that appears to fully cover the doing of *all* restricted acts engaged in AI training processes, with the result that a licensing requirement appears unavoidable for these to be conducted lawfully.[56] Such a conclusion is further strengthened by two additional considerations: the first is that, generally, all exceptions are premised on the prior lawful access to the protected content in question; the second is that exceptions are framed within the requirements of the three-step test and, having regard to the UK, of fair dealing.

While both aspects are discussed in greater detail elsewhere,[57] here it is worth recalling that, insofar as the former is concerned, `lawful access' is certainly not a requirement that is not fulfilled solely in the event of "persistently and repeatedly infringing copyright and related rights on a commercial scale" as instead submitted, problematically, in the recently unveiled Code of Practice.[58] Above all, `lawful access' (and `use') is a general requirement under copyright law, regardless of whether a specific mention in this sense is provided in the statutes[59] and also having regard to exceptions that prohibit contractual override.[60] In the US, the Copyright Office has concluded that training of AI models on content that is known to be unlawful weighs against a finding of fair use.[61] In the recent *Anthropic* order, Judge Alsup also denied summary judgment for Anthropic that pirated library copies could be treated as training copies, finding that every fair use factor would point against Anthropic in such a scenario.[62] The same position has been indicated to apply under Japanese law too.[63]

In Europe, the CJEU has consistently held that the availability of exceptions *in general* presupposes prior lawful access to the protected content in question, further linking such a requirement to the three-step test. The Court has done so in the context of private copying,[64] reporting of current events and quotation,[65] and temporary copies.[66] The CJEU has held that "a use should be considered lawful where it is authorised by the right holder or where it is not restricted by the applicable legislation".[67] Put differently, "a work, or a part of a work, has already been lawfully made available to the public if it has been made available to the public with the authorisation of the copyright holder or in accordance with a non-contractual licence or a statutory authorisation."[68] In turn, all this indicates that there is lawful access to (and then `use' of) a copyright work or other protected subject-matter as a result of a prior authorisation provided by the concerned rightholder or by law. This is consistent with the characterisation of copyright's exclusive rights as being preventive in nature. The CJEU has also expressly acknowledged the possibility for rightholders to restrict access to/use of content published online through contracts and not just by technical means, both in circumstances in which the content in question is protected[69] and those in which it is not.[70]

Turning to the three-step test, it consists of three cumulative requirements, which also need to be assessed in accordance with their logical order, that is as steps. Before determining whether a certain exception unreasonably prejudices the legitimate interests of the concerned rightholder, it is necessary to consider whether there is a conflict with a normal exploitation of protected content and, prior to that, whether the exception at hand only applies to certain special cases.[71] When an exception has the potential to reduce the volume of sales or of other lawful transactions relating to protected works[72] up to the point that exempted uses enter into economic competition with non-exempted ones, then such a provision is incompatible with the second step of the three-step test.[73] It is also likely to fail the third prong of the three-step test analysis (i.e., no unreasonable prejudice to the rightholder's legitimate interests), in that it causes or has the potential to cause "an unreasonable loss of income to the copyright owner".[74]

Turning to UK law, there is no express reference to the three-step test

[55] E Rosati, 'Copyright exceptions and fair use defences for AI training done for 'research' and 'learning', or the inescapable licensing horizon' (forthcoming) EJRR, advance access at https://doi.org/10.1017/err.2025.10035.

[56] In a similar sense, see also D Gervais and Others, 'The heart of the matter: Copyright, AI trainings and LLMs' (2025) 71(3) J Copyright Soc'y 482, p. 514-516 and, from the perspective of the UK movie sector, A Finney – B Tarran – R Coupland, *AI in the Screen Sector: Perspectives and Paths Forward A Foresight Lab Report* (June 2025), available at https://core-cms.bfi.org.uk/media/40967/download, §2, also stressing the need for transparency of training data. For example, in 2024 Canadian-American film production and distribution company Lionsgate and AI developer Runway concluded an agreement regarding the training of the latter's model with the former's content: see T Spangler, 'Lionsgate will use AI to let filmmakers 'augment' their work, studio expects to save 'millions' via pact with startup Runway' (18 September 2024) Variety, available at https://variety.com/2024/digital/news/lionsgate-generative-ai-filmmakers-runway-1236148854/.

[57] E Rosati, 'Copyright exceptions and fair use defences for AI training done for 'research' and 'learning', or the inescapable licensing horizon' (forthcoming) EJRR, advance access at https://doi.org/10.1017/err.2025.10035, §IV.

[58] A Peukert – C Castets-Renard, *Code of Practice for General-Purpose AI Models – Copyright Chapter* (10 July 2025), available at https://digital-strategy.ec.europa.eu/en/policies/contents-code-gpai, p. 4.

[59] In a similar sense, see also TE Synodinou, 'Lawfulness for users in European copyright law – Acquis and perspectives' (2019) 1/2019 JIPITEC 20, pp. 27-36. Contra C Geiger – BJ Jütte, 'Copyright as an access right: Concretizing positive obligations for rightholders to ensure the exercise of user rights' (2014) 73(11) GRUR Int 1019, pp. 1023-1024 and literature cited therein.

[60] In the same sense, M Borghi and Others, *Study: The Development of Generative Artificial Intelligence from a Copyright Perspective* (European Union Intellectual Property Office:May 2025), available at https://www.europarl.europa.eu/meetdocs/2024_2029/plmrep/COMMITTEES/JURI/DV/2025/05-12/2025.05.12_item6_Study_GenAIfromacopyrightperspective_EN.pdf, §2.4.1. Contra see, e.g., T Margoni, 'Saving research: Lawful access to unlawful sources under Art. 3 CDSM Directive?' (22 December 2023) Kluwer Copyright Blog, available at https://copyrightblog.kluweriplaw.com/2023/12/22/saving-research-lawful-access-to-unlawful-sources-under-art-3-cdsm-directive/.

[61] United States Copyright Office, *Copyright and Artificial Intelligence – Part 3: Generative AI Training (Pre-publication Version)* (May 2025), available at https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-3-Generative-AI-Training-Report-Pre-Publication-Version.pdf, p. 52.

[62] *Andrea Bartz, et al., v. Anthropic*, No. C 24-05417 WHA (N. Cal. Jun. 23, 2025), p. 31.

[63] Japan Copyright Office (JCO) (Copyright Division, Agency for Cultural Affairs, Japan), *"General Understanding on AI and Copyright in Japan" -Overview- (published by the Legal Subcommittee under the Copyright Subdivision of the Cultural Council)* (May 2024), available at https://www.bunka.go.jp/english/policy/copyright/pdf/94055801_01.pdf, p. 11.

[64] *ACI Adam*, C-435/10, EU:C:2014:254, para 38; *Copydan Båndkopi*, C-463/12, EU:C:2015:144, paras 77-78. See also: Opinion of Advocate General Hogan in *Austro-Mechana*, C-433/20, EU:C:2021:763, para 39 (fn 33); Opinion of Advocate General Szpunar in *VCAST*, C-265/16, EU:C:2017:649, para 8.

[65] *Painer*, C-145/10, EU:C:2011:798, para 131; *Funke Medien*, C-469/17, EU:C:2019:623, para 41; *Pelham*, C-476/17, EU:C:2019:624, para 67.

[66] *Stichting Brein*, C-527/15, EU:C:2017:300, para 70.

[67] Ibid, [65], referring to *Football Association Premier League and Others*, C-403/08 and C-429/08, EU:C:2011:631, para 168, and *Infopaq II*, C-302/10, EU:C:2012:16, para 42.

[68] *Spiegel Online*, C-516/17, EU:C:2019:625, para 89.

[69] *VG Bild Kunst*, C-392/19, EU:C:2021:181.

[70] *Ryanair*, C-30/14, EU:C:2015:10.

[71] World Trade Organization, *United States – Section 110(5) of the US Copyright Act*, WT/DS160/R, 15 June 2000, §6.160.

[72] *ACI Adam*, C-435/10, EU:C:2014:254, para 39.

[73] World Trade Organization, *United States – Section 110(5) of the US Copyright Act*, WT/DS160/R, 15 June 20, §6.181.

[74] Ibid, §6.229.

in the statute. This is so because, when the UK transposed the InfoSoc Directive into its own law, the Government's view was that the resulting copyright exceptions would comply with Article 5(5) thereof.[75] The lack of a specific provision outlining the three-step test in the CDPA, together with the idea that the three-step test would resemble the UK concept of fair dealing,[76] is the principal reason as to why "[th]ere has been very little judicial consideration"[77] of the three-step test in UK case law. Nevertheless, recent case law also indicates that the notion of fair dealing mirrors the three-step test.[78]

Both EU TDM exceptions are framed within the requirements of the three-step test as per Article 7(2) DSMD, and so is s.29A CDPA having regard to fair dealing. Considering the licensing solutions already available and under development with regard to the use of protected content for TDM purposes,[79] it may be difficult to see why one could not expect to receive licensing revenue for works and protected-subject matter individually considered, only expect a "high license fee" ,[80] or even how the "only remaining avenue for demonstrating a conflict with normal exploitation is the analysis of potential corrosive effects of AI output."[81] As stated, no TDM exception extends to output generation: in turn, to determine compliance with the three-step test/fair dealing and – thus – to decide on the very applicability of one of these defences, it is solely the input phase – by that meaning TDM, not AI training – that matters.

Finally, it is worth recalling that compliance with the AI Act entails an obligation (Article 53(1)(c)) for models offered in the EU to comply with EU laws, including but not limited to the rights reservation possibility envisaged by Article 4(3) DSMD, irrespective of where the TDM was conducted. While this aspect is discussed in greater detail elsewhere, here it is worth recalling that it would be erroneous to regard Article 53(1)(c) of the AI Act as an attempt to apply EU law extraterritorially.[82]

3. AI-generated content: Protectability as a matter of creative control

As noted in Part 1, the use and inclusion of AI-assisted and -generated components is growing in the movie industry too, and so is the availability of AI-based tools and services that allow inter alia the generation of audiovisual content. The question of whether the resulting content is protectable under copyright and related rights is not new. Yet, it is irrelevant if approached from the perspective of whether a non-human can be an `author' in a legal sense: most jurisdictions, with some notable exceptions (e.g., s9(3) CDPA) in the UK), already provide an answer in the negative. A more (if not the only) meaningful approach in this context is thus not whether non-humans may be authors, but rather to what extent one may use AI and still be regarded as the author of the resulting output. In other words, the issue is not who an author is, but rather *what* makes one an author. At the EU level, it is clear that there must be an EU-wide approach to *all* the foundational requirements of copyright protection. In other words: an EU approach to `work', `originality', and `authorship' (as well as joint authorship[83]) too. Recently, in *Kwantum*, the Grand Chamber of the CJEU confirmed that both `work' and `author' as referred to in the InfoSoc Directive are autonomous concepts of EU law, since no reference is made to national law in either respect.[84]

Defining concepts like `creativity', `originality', `personality' and `authorship' has nevertheless proven complex, and not just in the legal sphere.[85] If one looked for statutory definitions of the basic requirements of copyright protection in international or EU instruments, such a quest would be disappointing, if not altogether in vain. Despite the fact that, as early as 1988, the European Commission noted that "significant differences in the protection available to particular classes of copyright works can *clearly* fragment the internal market in those works in an undesirable way" ,[86] the resulting EU legislative framework does not say much on what the very basics of copyright protection mean.

For authorship, nothing is specified regarding its foundational requirements. The only hints relate to *who* may be regarded an author: Article 1(5) of Directive 93/83[87] refers to authorship of cinematographic or audiovisual works; Article 2 of Directive 2009/24[88] and Article 4(1) of the Database Directive consider, respectively, computer programs and databases, and – more recently – the DSMD (Recitals 72 and 74) refers to this concept as entailing a natural person to determine eligibility for the application of its contract-specific provisions. From the originality standard currently enshrined in Article 6 of Directive 2006/

[75] G Harbottle and Others, *Copinger and Skone James on Copyright* (Sweet & Maxwell:2025) 19th edn, §8-03.

[76] *England And Wales Cricket Board Ltd & Anor v Tixdaq Ltd & Anor* [2016] EWHC 575 (Ch) (18 March 2016), [89].

[77] Ibid, para 88.

[78] *Shazam Productions Ltd v Only Fools The Dining Experience Ltd & Ors (Rev1)* [2022] EWHC 1379 (IPEC) (8 June 2022), para 189.

[79] See for example: Copyright Clearance Center, 'AI re-use rights for content available from VG WORT and RightsDirect' (28 May 2025), available at https://www.copyright.com/blog/ai-re-use-rights-content-available-digital-copyright-license-vg-wort-rightsdirect/; *Position on Licensing of generative AI presented by the Nordic Collective Management Organisations in the Music Sector as of April 2025*, available at https://www.stim.se/sites/default/files/position_on_licensing_of_generative_ai.pdf; M Cormack, 'CLA announces development of generative AI training licence' (23 April 2025), available at https://cla.co.uk/development-of-cla-generative-ai-licence/; *CCC Launches Collective AI License* (25 July 2024), available at https://www.copyright.com/blog/ccc-launches-collective-ai-license/.

[80] M Senftleben, 'TDM, GenAI and the copyright three-step test' (24 July 2025), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5373903, p. 14.

[81] In this sense M Senftleben, 'GenAI and the copyright three-step yest – Do TDM exceptions for AI training conflict with a work's normal exploitation?' (forthcoming) 74 Gewerblicher Rechtsschutz und Urheberrecht - International, pre-print available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5356851, p. 2.

[82] E Rosati, 'Infringing AI: Liability for AI-generated outputs under international, EU, and UK copyright law' (2025) 16(2) EJRR 603, p. 613-615.

[83] But cf Opinion of Advocate General Campos Sánchez-Bordona in *SACD and Others*, C-182/24, EU:C:2025:267 concerning joint ownership of copyrights, on which see further E Rosati, 'AG Campos advises CJEU to rule that joint ownership of copyright remains within the remit of national law, not EU law. But is that (still) right?' (13 April 2025) The IPKat, available at https://ipkitten.blogspot.com/2025/04/ag-campos-advises-cjeu-to-rule-that.html.

[84] *Kwantum*, C-227/23, EU:C:2024:914, paras 57-58.

[85] The writings of Harold Bloom, Roland Barthes and Michel Foucault are exemplificative in this regard: H Bloom, *The Anxiety of Influence. A Theory of Poetry* (OUP:1973), 2nd edn; R Barthes, *Image Music Text* (HarperCollins:1977); M Foucault, 'What is an author?', in DF Bouchard (ed), *Language, Counter-Memory, Practice: Selected Essays and Interviews by Michel Foucault* (Cornell University Press:1980). See further L Bently, 'Copyright and the death of the author in literature and law' (1994) 57(6) MLR 973. See also E Rosati, *Originality in EU Copyright* (Edward Elgar:2013), p. 54-58, and E Rosati, 'The *Monkey Selfie* case and the concept of authorship: an EU perspective' (2017) 12(12) JIPLP 973, p. 974-975.

[86] Commission of the European Communities, *Green Paper on copyright and the challenge of technology – Copyright issues requiring immediate action*, COM (88) 172 final, p. 4 (emphasis added).

[87] Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, OJ L 248, 6 October 1993, p. 15–21.

[88] Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (Codified version), OJ L 111, 5 May 2009, p. 16–22.

116[89] ("author's own intellectual creation"), in her Opinion in *Painer*-145/10, AG Trstenjak further derived that "only *human* creations are […] protected, which can also include those for which the person employs a technical aid, such as a camera."[90]

The same approach is found in national law. For example, under UK law, s.9 CDPA states that an author is "the person who creates" a work; in the US, the Compendium of Practices of the Copyright Office provides that an author must be a human and that no registration shall be granted to:

> works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author. The crucial question is "whether the `work' is basically one of human authorship, with the computer [or other device] merely being an assisting instrument, or whether the traditional elements of authorship in the work (literary, artistic, or musical expression or elements of selection, arrangement, etc.) were actually conceived and executed not by man but by a machine".[91]

a. *Originality*

In comparison to `authorship' as discussed above, more is arguably known about the requirement of `originality'. Overall, what the law – as interpreted by the CJEU – mandates is an exercise of `dissection' of a work: choices that are not free and creative should be separated from those that are free and creative, as only the latter are protectable under copyright. The EU standard of originality entails a "`creative' aspect, and it is not sufficient that the creation of [the work] required labour and skill."[92] In addition, the originality criterion is not satisfied when the creation of a work "is dictated by technical considerations, rules or constraints which leave no room for creative freedom".[93] All this does not mean that a technical work can never be protected: at least the parts thereof that are the result of free and creative choices shall be. The resulting protection through copyright therefore has the potential to be thin or even very thin, but not non-existent. In light of what the CJEU itself regards as "well-established case-law", the CJEU understanding of originality can be summarised as follows:

> In order for an intellectual creation to be regarded as an author's own it must reflect the author's personality, which is the case if the author was able to express [their] creative abilities in the production of the work by making free and creative choices.[94]

Such an approach has been maintained in post-Brexit UK practice. In *THJ v Sheridan*, Arnold LJ held that s.1(1)(a) CDPA must be interpreted in accordance with Article 2(a) of the InfoSoc Directive. He recalled the CJEU-mandated test,[95] further considering that the assessment of originality must be objective. Such guidance has been applied more recently (albeit generously) in *Courtney-Smith v The Nottinghill Shopping Bag Company*, where it was reiterated that "the [originality] test is not about artistic merit but rather about making free and creative choices".[96] Again consistently with what is stated above, the actual degree of originality of the work in question is relevant to determining the scope of the resulting protection: only the copying of protected features is actionable under the authorial right of reproduction.[97]

While all the above may be considered – for the time being – settled, the recent Opinion of AG Spielmann in the pending referral in *Institutul G. Călinescu*, C-649/23 appears to go astray. There, the AG considered that an attempt to reconstruct the complete text of a third-party work in a way that is as close as possible to that third-party's intention may be an expression of creativity, and not a mere research effort (insofar as the choices made are not purely technical).[98] While a new copyright may well subsist in a derivative work, also consistent with Article 2(3) of the Berne Convention, it is doubtful that ingenuity and creativity might be exercised when one seeks to reconstruct / restore someone else's work. Instead, choices of this kind would likely lack freedom or be of a technical kind, thus leading to an overall lack of originality intended as requiring more than skill, labour or effort. As mentioned the case is currently awaiting judgment. If the CJEU however endorses the position adopted by AG Spielmann, that might potentially entail some rethinking of the EU approach to originality.

b. *Authorship in light of originality*

Against the background illustrated above, case law proves helpful, including national cases on joint authorship claims, to sketch the notion of `author'. First of all, authorship is not synonymous with penmanship:

> If copyright protection can extend to the plot of a literary work, even where the precise words of the work are not taken, then it seems to us to be logical to suppose that the skill which goes into devising the plot is properly to be regarded as part of creating the work […] [I]t can never be enough simply to ask who did the writing.[99]

It is the person who controlled the process by making the `free and creative choices' conferring originality that can be regarded as the author of that work, which ultimately carries their personality.

This conclusion also aligns with the approach taken outside Europe, including the few cases decided so far on AI-generated and -assisted outputs. Decisions like those of the US Copyright Office to register *A Single Piece of American Cheese*[100] or those of the Beijing Internet Court in *Li v Liu*[101] and People's Court of Zhangjiagang City, Jiangsu Province in

[89] Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights (codified version), OJ L 372, 27 December 2006, p. 12–18.

[90] Opinion of Advocate General Trstenjak in *Painer*, c-145/10, EU:C:2011:239, para 121 (emphasis added).

[91] United States Copyright Office, *Compendium of U.S. Copyright Office Practices* (2021), 3rd edn, §313.2.

[92] Opinion of Advocate General Mengozzi in *Football Dataco and Others*, C-604/10, EU:C:2011:848, para 35. In the same sense, see also Opinion of Advocate General Szpunar in *Funke Medien*, C-469/17, EU:C:2018:870, para 18.

[93] *Cofemel*, C-683/17, EU:C:2019:721, para 31 (emphasis added), referring to *Football Dataco and Others*, C-604/10, EU:C:2012:115, para 39. See also *Brompton Bicycle*, C-833/18, EU:C:2020:461, para 24.

[94] *Funke Medien*, C-469/17, EU:C:2019:623, para 19.

[95] *THJ Systems Limited & Anor v Daniel Sheridan & Anor* [2023] EWCA Civ 1354, para 116.

[96] *Natasha Courtney-Smith & Anor v The Nottinghill Shopping Bag Company & Ors* [2025] EWHC 1793 (IPEC), para 297.

[97] Ibid, para 315. See also the discussion in O Fairhust, 'Tote Bags at Dawn: Bona vacantia, trade marks and copyright' (22 July 2025) The IPKat, available at https://ipkitten.blogspot.com/2025/07/tote-bags-at-dawn-bona-vacantia-trade.html.

[98] Opinion of Advocate General Spielmann in *Institutul G. Călinescu*, C-649/23, EU:C:2025:488, part. para 63, on which see critically E Rosati, 'AG Spielmann advises CJEU to rule that a derivative work may be original and protection could also stem from efforts to reconstruct missing parts in someone else's work' (26 June 2025) The IPKat, available at https://ipkitten.blogspot.com/2025/06/ag-spielmann-advises-cjeu-to-rule-that.html.

[99] *Kogan v Martin & Ors (Rev 1)* [2019] EWCA Civ 1645 (09 October 2019), para 35. In the same sense, see also Cour d'appel de Paris, RG n° 22/14922 (5 June 2024), commented in E Rosati, 'From conceptual art to AI: On the Druet/Cattelan dispute and authorship of works made by someone other than the "author" (16 June 2024) The IPKat, available at https://ipkitten.blogspot.com/2024/06/from-conceptual-art-to-ai-on.html.

[100] Registration record: VAu001543942.

[101] Beijing Internet Court Civil Judgment (2023) Jing 0491 Min Chu No. 11279.

Butterfly Art Chair[102] do not indicate that AI-generated outputs are protectable *tout court*: instead, they stress the need to reconstruct the process that led to the AI-generated output in order to identify the human author's contribution and separate that from what is purely AI. In the recent decision of the US Court of Appeal for the District of Columbia Circuit concerning *A Recent Entrance to Paradise*, an artistic work that is claimed to have been entirely generated by Dr Stephen Thaler's Creativity Machine, it is clearly and correctly stated that – while the notion of `author' at least under US law only refers to human beings "because many of the [US] Copyright Act's provisions make sense only if an author is a human being"[103] – "adhering to the human-authorship requirement does not impede the protection of works made with artificial intelligence."[104] That is so inter alia because a human can create works *with the assistance* of AI and those works can receive protection. The court remained unpersuaded that a requirement of human authorship would disincentivise creativity by creators and operators of AI. Still in the US, Part 2 of the US Copyright Office Report on `Copyright and Artificial Intelligence' *confirms* that the use of AI models to assist human creativity is no bar for copyright protection of the output insofar as there is sufficient human control over the expressive elements.[105] This is *not* a change of position on the side of the Office. It is instead consistent with the already cited Compendium of Practices itself and the 1965 Report to the Librarian of Congress.[106]

4. Use of infringing AI models in movie creation and production

The third and final part of the analysis concerns the use of AI models that allow generating output that reproduce third-party copyright works and/or protected subject-matter used during the input/training phase. While the subsistence and allocation of the resulting liability between users, developers and providers has been discussed in greater detail elsewhere,[107] two key issues are worth focusing on here: the first is whether even the imitation of someone's style at output generation falls within the scope of copyright and related rights protection; the second requires specific consideration of model providers' terms of service that exclude any liability thereof resulting from the use of such models. Notably, the issue is whether such terms may be actually enforceable against users of the models and/or effective in relation to third-party rightholders whose rights may have been infringed. It is submitted that, at least in Europe and in light of existing case law, limitations of liability by AI developers and providers vis-à-vis users could be deemed unenforceable against the latter, and ineffective against third parties whose rights have been infringed.

a. *Style imitation under copyright and related rights*

The possibility for an AI model to generate outputs that imitate someone's style suggests, first of all, that the training data incorporates content featuring that person and their production. This consideration aside, which is nevertheless key to the analysis conducted in Part 2 above, unauthorised style imitation at output generation does raise the question whether it might be actionable under at least the right of reproduction. While the answer depends on the circumstances at issue, including the applicability of the idea/expression dichotomy (Articles 2 of the WIPO Copyright Treaty and 9(2) of the TRIPS Agreement) and proof of derivation, there is no reason – despite the lack of express guidance at the CJEU level yet – to rule out the actionability of style imitation, provided that the requirements for protection are fulfilled.

Starting with related rights, it is worth stressing once more that the more traditional view is the lack of any threshold condition for their subsistence or, to adopt the view endorsed by the CJEU in its case law, an investment approach may also, likely more appropriately, be adopted. In either case, if someone's style is incorporated in subject-matter protected by a related right – whether it is the rights enjoyed by performers, broadcasters, film or phonogram producers – any act of reproduction might potentially be actionable.

Turning to copyright, to be protected, the style in question must be, first of all, a `production' in a Berne sense,[108] that is a `work' as defined by the CJEU in *Levola Hengelo*, C-310/17: "for there to be a `work' […], the subject matter protected by copyright must be expressed in a manner which makes it identifiable with sufficient precision and objectivity, even though that expression is not necessarily in permanent form."[109] The definition provided in this case also refers to the idea/expression dichotomy, which at least since the CJEU judgment in *SAS Institute*, C-406/10 has been regarded as a general principle of EU copyright.[110] In imposing the conditions of precision and objectivity, it further implies that there should be no element of subjectivity in the process of identifying the protected subject-matter.[111]

Secondly, provided that the style is a `work', it must also be original to attract copyright protection, as discussed above in Part 3. Contrary to what some commentators suggest, also consistent with the position adopted by the CJEU and its AGs in several cases,[112] originality must be intended as a meaningful threshold to protection.

As a further confirmation that a style might be protected under copyright and related rights there is the existence, under both EU and UK laws, of an exception allowing pastiche. At the time of writing, the first CJEU referral specifically asking about such a notion is pending (*Pelham II*, C-590/23). However, in his Opinion in *Pelham I*, C-476/17, AG Szpunar suggested that pastiche "consists in the imitation of the style of a work or an author without necessarily taking any elements of that work".[113] Considering that pastiche is an exception under copyright and related rights, more correctly, it must entail the taking of protected elements. In his Opinion in *Pelham II*, C-590/23, AG Emiliou thus admitted that when someone "imitates closely the style of a single work", such an activity may be relevant under copyright's right of reproduction and the pastiche exception: "The elements borrowed, while `stylistic', could still be regarded as original, especially when combined."[114] Contrary to what

[102] The People's Court of Zhangjiagang City, Jiangsu Province, judgment of 19 March 2025 – (2024) Su 0582 Min Chu No. 9015, analyzed in T He, 'Distinguishing copyrightable from non-copyrightable AI-generated content (forthcoming) GRUR Int, advance access at https://doi.org/10.1093/grurint/ikaf085.

[103] *Thaler v. Perlmutter*, No. 23-5233 (D.C. Cir. 2025), p. 10.

[104] Ibid, p. 18.

[105] United States Copyright Office, *Copyright and Artificial Intelligence – Part 2: Copyrightability* (January 2025), available at https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf.

[106] *Sixty-Eight Annual Report of the Register of Copyright for the Fiscal Year Ending June 30, 1965* (1966), available at https://www.copyright.gov/reports/annual/archive/ar-1965.pdf, p. 5.

[107] E Rosati, 'Infringing AI: Liability for AI-generated outputs under international, EU, and UK copyright law (2025) 16(2) EJRR 603.

[108] S von Lewinski, *International Copyright Law and Policy* (OUP:2008), §5.66; S Ricketson – JC Ginsburg, *International Copyright and Neighbouring Rights – The Berne Convention and Beyond* (OUP:2022), 3rd edn, §8.03.

[109] *Levola Hengelo*, C-310/17, EU:C:2018:899, para 40.

[110] In this sense, R Arnold, 'Copyright in software: functionality', in T Aplin (ed), *Research Handbook on Intellectual Property and Digital Technologies* (Edward Elgar:2020), p. 39.

[111] *Levola Hengelo*, C-310/17, EU:C:2018:899, para 40; *Cofemel*, C-683/17, EU:C:2019:721, para 32.

[112] See further E Rosati, *Copyright and the Court of Justice of the European Union* (OUP:2023), 2nd edn, p. 142-144, and E Rosati, 'The unavoidable CJEU *Kwantum* judgment' (2025) 20(4) JIPLP 270, p. 273.

[113] Opinion of Advocate General Szpunar in *Pelham I*, C-476/17, EU:C:2018:1002, fn 31.

[114] Opinion of Advocate General Emiliou in *Pelham II*, C-590/23, EU:C:2025:452, para 66.

Fig. 5. AI-generated image using the prompt "Create image of Emily in Paris from Netflix".

Fig. 6. The 'real' Emily, played by Lily Collins (source: Netflix).

AG Cruz-Villalón had suggested in his Opinion in *Deckmyn*, C-201/13[115] and also in line with the only UK case decided so far regarding pastiche under s.30A CDPA,[116] AG Emiliou correctly indicated that pastiche is not a catch-all term that applies to all derivative expressions. Thus, he proposed that the Court should define `pastiche' as follows:

> an artistic creation which (i) evokes an existing work, by adopting its distinctive `aesthetic language' while (ii) being noticeably different from the source imitated, and (iii) is intended to be recognised as an imitation. The purpose pursued with that overt stylistic imitation is irrelevant.[117]

Applying the guidance above, one might wonder if the image in Fig. 5, generated using a popular model in response to the prompt "create image of Emily in Paris from Netflix", is at least relevant under the right of reproduction (questions of actionability under trade mark law might arise too, due to the use of the signs and registered trade marks `Emily in Paris' and `Netflix' in the prompt) and, if so, whether the pastiche exception under EU and UK copyright law would be applicable in principle, further considering that access to all Netflix content (including *Emily in Paris*) is reserved to subscribers only. While the model used did not generate a verbatim copy of Emily as a character played by actress Lily Collins in the eponymous Netflix series (Fig. 6), there are several points of resemblance between the resulting image and the original, having regard to gender, age, ethnicity, facial features (including distinctive eyebrows), hair colour, make-up, hairstyle, and overall look-and-feel.

As noted, while the CJEU judgment in *Pelham II*, C-590/23 is pending, the proposed definition of pastiche entails the protectability of styles as copyright works. Above all, it does not suggest that all such imitations will be allowed without permission. This is also indicated by the already mentioned requirements that all exceptions under copyright and related rights require lawful access to the work or protected subject-matter on which the imitation is based, and compliance with the three-step test/fair dealing requirements.

b. *Allocation of liability resulting from infringing AI-generated outputs*

As discussed, the use of a model may result in the generation of an infringing output that is not covered by any potentially applicable TDM exception. While the user inputting the prompt resulting in prima facie

[115] Opinion of Advocate General Cruz-Villalón in *Deckmyn*, C-201/13, EU:C:2014:458, para 46.
[116] *Shazam Productions Ltd v Only Fools The Dining Experience Ltd & Ors (Rev1)* [2022] EWHC 1379 (IPEC) (08 June 2022), paras 186-188.
[117] Opinion of Advocate General Emiliou in *Pelham II*, C-590/23, EU:C:2025:452, para 133.

infringing output (and subsequently using that output) might be regarded as the one directly undertaking restricted acts,[118] any resulting liability could also encompass parties other than users. Providers of AI models could be held liable not only on a secondary/indirect/accessory basis, but also on a primary/direct basis, consistent with case law in the UK and EU.[119]

As regards the latter in particular, it is worth recalling that the primary/direct liability of internet platforms for communicating/making available to the public infringing content uploaded and shared by users of their services is also well-established. In the joined referrals *YouTube*, C-682/18 and *Cyando*, C-683/18, the CJEU upheld the finding in the 2017 judgment in *Ziggo*, C-610/15 that a platform operator may be directly liable for users' infringing acts. Among other things, the Court gave weight to the consideration whether a platform would implement appropriate technological measures, as would be expected from a reasonably diligent operator, to counter – credibly and effectively – the undertaking of infringing acts.[120]

Translating all this to generative AI, to mitigate the risk of liability, a diligent AI model provider would need to implement effective measures to prevent users from using certain expressions, names, words and phrases when inputting prompts. Obviously, if primary liability was established on the side of a platform operator or – as here – an AI model provider, in accordance with the criteria provided in *YouTube*, C-682/18 and *Cyando*, C-683/18, no immunity (e.g., the hosting safe harbour) would be available.[121] A somewhat similar approach would be required where the AI provider fell within the scope of application of Article 17 DSMD.[122] In such a situation, and where no authorisation was provided by relevant rightholders, the conditions of Article 17(4) would need to be cumulatively satisfied for an AI provider to remove the risk of its own direct liability, including by implementing measures that "distinguish adequately between unlawful content and lawful content".[123]

c. *Enforceability of AI model providers' terms of service*

Having considered the above, a final issue that arises is the enforceability of terms of service used by AI model providers to exclude their liability for infringements committed by users.[124] While the answer will obviously depend on the specific circumstances at hand, in *YouTube/Cyando*, C-682/18 and C-683/18, the CJEU referred to the terms of service of a platform operator, and found that – even if the terms require (i) users to respect third-party rights and (ii) that the user holds all the necessary rights, agreements, consents and licences for the content that they upload – the existence of such terms alone could not be enough to exclude the operator's own liability.

This is because the terms of service are merely one of several criteria that need to be taken into account and balanced in order to determine if the platform operator in question is liable for the copyright-restricted acts. With specific regard to Cyando's cyberlocker Uploaded, the CJEU noted that its general terms and conditions prohibited users from infringing third-party copyrights.[125] Yet, the Court suggested that the liability of the platform should be assessed considering all the relevant aspects of the platform's functions and activities, thus materially broadening the assessment beyond the wording of the platform's terms of service. Consequently, the referring court (German Federal Court of Justice) applied the guidance received from the CJEU and concluded that liability for unauthorised acts of communication to the public would exist under certain conditions for the operator of Uploaded.[126]

The above thus suggests that even if the terms of service of an AI model provider seek to exclude the provider from liability for users' infringing acts, such terms alone may not rule out the liability of the provider. Therefore, rightholders could potentially enforce their rights against both users and providers of AI models.

5. Main findings and concluding remarks

By considering relevant issues under EU and UK copyright law that arise in connection with the input/training phase and output generation, this study has mapped relevant legal risks and opportunities facing the development, deployment, and use of AI models. The main conclusions of the analysis are as follows:

- Insofar as training on third-party protected content is concerned, there are no exceptions under EU/UK law that fully cover the entirety of these processes. The same appears to be the case in other jurisdictions as well, including those with an often (unduly) perceived more generous system of exceptions like the US and its fair use doctrine.[127] As a result, absent legislative reform, the establishment of a licensing requirement appears unavoidable for such activities to be deemed lawful;
- The deployment of AI across various phases of the creative process does not render the resulting content unprotectable, insofar as human involvement and control remain significant throughout such that AI is relied upon as a tool that aids – rather than replaces – industry workers' creativity;
- The use of AI tools that result in the generation of infringing outputs, e.g., through input data regurgitation or even mere style imitation, trigger the application of exclusive rights under copyright and related rights. The resulting liability may vest with the user of such tools, as well as the developer/provider. This means that terms that exclude any such liability might ultimately be found to be unenforceable against users, and ineffective vis-á-vis rightholders.

The origin of cinema itself is rooted within technological disruption (the invention of the Cinématographe). Since then, it has developed into an industry in which human ingenuity and the ability to innovate have

[118] In substantially the same sense, see also Korean Ministry of Culture, Sports and Tourism and Korea Copyright Commission, *A Guide on Generative AI and Copyright* (16 January 2024), available at https://www.copyright.or.kr/information-materials/publication/research-report/view.do?brdctsno=52591#, p. 31-33.

[119] See further E Rosati, 'Infringing AI: Liability for AI-generated outputs under international, EU, and UK copyright law' (2025) 16(2) EJRR 603, p. 619-621.

[120] *YouTube/Cyando*, C-682/18 and C-683/18, EU:C:2021:503, para 84.

[121] Contra Opinion of Advocate General Saugmandsgaard Øe in *YouTube/Cyando*, C-682/18 and C-683/18, EU:C:2020:586, part. para 138.

[122] On the application of the regime found in Article 17 DSMD to AI providers, see Z Krokida, 'Large language models and EU intermediary copyright liability: quo vadis?' (2024) 46(6) EIPR 361, p. 371.

[123] *Poland*, C-401/19, EU:C:2022:297, para 86.

[124] A review of different providers' terms of service is available in P Wymeersch, 'Terms of use on the commercialisation of AI-produced images and copyright protection' (2024) 46(6) EIPR 374, p. 380-381. A discussion of indemnifications offered to users by some AI providers is instead undertaken in D Gervais, 'Licensing of copyright-protected material for AI makes business sense' (4 December 2023), available at https://www.copyright.com/wp-content/uploads/2023/12/Gervais-Licensing-of-Copyright-Protected-Material-for-AI-Makes-Business-Sense.pdf.

[125] *YouTube/Cyando*, C-682/18 and C-683/18, EU:C:2021:503, para 44.

[126] BGH, I ZR 135/18 *uploaded III*.

[127] The recent settlement agreement concluded by Anthropic following its unauthorized use of third-party protected content to train Claude and related court action appears to suggest that a licensing approach might be pursued in the US as well: see inter alia C Metz, 'Anthropic agrees to pay $1.5 billion to settle lawsuit with book authors' (5 September 2025) The New York Times, available at https://www.nytimes.com/2025/09/05/technology/anthropic-settlement-copyright-ai.html. In greater detail, see also E Rosati, 'Copyright exceptions and fair use defences for AI training done for 'research' and 'learning', or the inescapable licensing horizon' (forthcoming) EJRR, advance access at https://doi.org/10.1017/err.2025.10035, §V.I.

been key pillars, with the latter *serving* the former. AI is but the most recent addition to a history characterised by such a close relationship. Yet, for the development and deployment of AI tools to be sustainable in the medium- and long-term and continue to aid movie industry workers' creativity, the correct legal framing and subsequent treatment of relevant issues remain key. In this sense, rightholders should be able to control the use of their content where appropriate and retain the ability to take enforcement initiatives as needed, whether it is during the input/training or output generation phases.[128] AI may also serve to validly support the shaping and delivery of one's own creativity, but only situations in which that is the case should be entitled to receive protection under copyright law.

Declaration of competing interest

This study was prepared at the request of 4iP Council, but all views and errors are solely attributable to the Author, who wishes to thank the Editor and Reviewers of *Computer Security Law Review* for their feedback on an earlier draft.

Data availability

No data was used for the research described in the article.

[128] In a similar sense, see also JM Barnett, 'The free content illusion' (29 August 2025) USC CLASS Research Paper No. 2518, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5414819.