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The international reach of EU copyright through the AI Act

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CONTENT

Abstract

On 1 August 2024, the EU Regulation on Artificial Intelligence (AI Act) came into force after a difficult road. Originally conceived purely as a product safety law, the regulation has developed in reaction to public debate to include the protection of copyright used to train generative AI models such as the Large Language Model GPT developed by OpenAI. This article provides a legal classification of the relevant provisions and examines the influence of the AI Act on AI training, in particular how the copyright strategy required from the providers of generative AI models can be justified in terms of legal doctrine as well as economics and how it can be applied in practice.

A. Generative AI and Copyright

The potentially unauthorised use of material protected by copyright, in particular texts, images, and pieces of music, is a major point of criticism of advanced AI models. Once again, digital technologies are putting the usage and exploitation mechanisms of intellectual property law to the test.[1] First and foremost, the output of generative AI can constitute a copyright infringement: If the results produced with the help of a generative AI model[2] contain substantial elements from pre-existing works or other protected subject matter with which the AI model has been trained, the reproduction, distribution, or public communication of the output as an adaptation or other transformation of the source material constitutes – under EU-law – an infringement of the exclusive rights in the source material, unless special exceptions apply.[3] However, irrespective of any similarities between the AI output and previously known works, the question arises as to what extent creators can claim a violation of their exclusive rights on protected subject matter that is being used for training generative AI models without their consent. The US courts are currently addressing this issue in several major lawsuits.[4] These lawsuits allege, in part, that, from the moment gene-

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1 For an overview, see *Lee/Hilty/Liu*, Artificial Intelligence and Intellectual Property; WIPO, *Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence*, 21 May 2020, WIPO/IP/AI/2/GE/20/1 REV; with the somewhat lurid title *Pesch/Böhm*, Artpocalypse Now, GRUR 2023, 997; with a legal-political, now legally historically relevant perspective on the exploitation problems in the digital space *Metzger*, ZUM 2018, 233 (237 et seq.).

2 The products generated autonomously by an AI are not 'works' within the meaning of copyright, as there is no 'personal' creation as a result of human creativity, cf. only *Maamar,* ZUM 2023, 481 (490); *Raue,* ZUM 2024, 157 (160) with further references; also on US law *Thaler v. Perlmutter*, No. 22-CV-384-1564-BAH (D.D.C. 18 August 2023) = GRUR 2024, 287 para. 13 et seqq. with annotation by *Kaesling,* GRUR 2024, 260; *Hansen*, ZUM 2024, 111 (112).

3 See in Germany Sec. 23 (1) sentence 1 UrhG; in France Art. L 122-3 sentence 2 CPI. Likewise, in US copyright law, the question depends on whether the output shows 'substantial similarity'. For further reference see *Baumann,* NJW 2023, 3673 para. 30 et seqq.; *Finke*, ZGE 15 (2023), 414 (418 et seqq.); *Hofmann,* ZUM 2024, 166 (172 et seqq.); *Maamar,* ZUM 2023, 481 (489 et seqq.).

4 E.g., *Paul Tremblay et al. v. OpenAI, Inc. et al*, No. 3:23-CV-03223 (N.D. Cal. 12 February 2024); *Kadrey et al. v. Meta Platforms, Inc, No.* 23-cv-03417-VC, 2023 WL 8039640 (N. D. Cal. 20 November 2023); *Andersen et al. v. Stability AI Ltd. et al, No.* 23-CV-00201-WHO, 2023 WL 7132064 (N.D. Cal. 30 October 2023); overview in *Stim, Richard*, Patent, Copyright & Trademark, 18th ed., Berkeley 2024, 206 et seq.; see also *de la Durantaye,* ZUM 2023, 645.

rative AI output is released, it competes with the works that were used to create it, and that the use of digital cultural goods as training data therefore threatens the existence of authors and performing artists.[5] Against this background, it is noteworthy that the AI Act, which began as product safety law,[6] also addresses the copyright compliance of products as of 1 August 2024, – with potentially broad geographical effect. This article aims to examine the scope of the AI Act's applicability with respect to European copyright law, analyse its consequences, and identify justification approaches.

B. Copyright relevance of AI models and systems

I. Training, design and output as separate regulatory subjects

For AI, a schematic distinction can be made between three functional areas that are subject to different regulatory requirements: the input of the AI model on which the AI system is based, the design of the AI model, and the output of the AI system.[7] These three areas have different levels of harmonization at the European level.[8] Input is primarily regulated by the GDPR, the Know-how Directive, and other regulations on intellectual property.[9] Regulation of the technical design of the models and systems is becoming prevalent, as is shown by the AI Act as an act of product safety law.[10] Output regulation, on the other hand, is largely left to the Member States, for example, with regard to the question of when an offence or bodily harm relevant under tort law has been committed. Of course, the EU requirements on non-discrimination and ranking on digital platforms are also worth noting regarding output.[11] However, the copyright assessment of the training and the use of generative AI models is densely harmonised by EU law. The autonomous European concept of a 'work' determines questions regarding copyright protection of AI output,[12] and European concepts of exploitation rights determine uses such as reproduction, distribution, or communication to the public.[13]

The intellectual property rights debate surrounding AI systems focuses primarily on the training of the models on which AI systems are based. The providers of large and successful systems are accused of training their models by performing acts of reproduction without the rightsholders' consent. Allegedly, web and database scraping, i.e. the systematic and automated extraction of data, is being used on a large scale to obtain the training material for AI

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5 Similar accusations are also made in Germany, see e.g. *Hornschuh*, IU Mag #7, 7.

6 Regulation (EU) 2024/1689 of 13 June 2024 on artificial intelligence, OJ L of 12 July 2024.

7 Cf. on the definitions *Peukert*, GRUR Int. 2024, 495 (500, 507).

8 On categorisation under the *New Approach: Denga*, CR 2023, 277 (281).

9 For example, data protection issues relating to *prompting*, e.g. *Berz/Engel/Hacker*, ZUM 2023, 586 (588-590).

10 See in particular Chapter III, Section 2 (Art. 8 et seqq.) of the AI Act; see also C. II. 4.

11 Comprehensively *Hacker,* GRUR 2022, 1278-1285.

12 Regarding the EU-wide harmonisation of the concept of work, see ECJ, GRUR 2019, 73 para. 33; ECJ, GRUR 2019, 1185 para. 29; BGH, GRUR 2021, 1290 para. 58; BGH, GRUR 2022, 899 para. 29; BGH, GRUR 2023, 571 para. 14; BGH, GRUR 2024, 132 para. 12; GRUR 2024, 104; *Leistner*, GRUR 2019, 1114; *Obergfell/Stieper,* FS 50 Jahre UrhG, 2015, 223 (229 et seqq.).

13 *Maamar*, ZUM 2023, 481 (489 et seq.); on the full harmonisation of exploitation rights including the right of adaptation in general *Raue,* GRUR 2024, 161 (162 et seq.); *Stieper,* GRUR 2023, 575 (576 et seq.), each with further references.

systems.[14] The permissibility of this procedure under copyright law depends on whether an act of exploitation relevant to copyright law is carried out and whether such use is covered by an exception or limitation on copyright and is therefore permitted without the actual consent of the rightholders concerned.

II. Treatment of text and data mining in the EU and the USA

The training of AI models regularly requires prior storage of the training data obtained through web or database scraping in what is known as the corpus. Insofar as the training data contains works or other subject matter protected by copyright, the creation of the corpus is generally regarded as an act of reproduction within the meaning of Art. 2 InfoSoc Directive (in Germany Sec. 16 UrhG; in France Art. L 122-3 CPI).[15] The same applies to US law under 17 U.S.C. § 106 para. 1.[16] The relevant question here is whether the reproduction is permitted pursuant to invocation of an exception or limitation to copyright.

1. European Union

In Europe, the discussion on use of protected material in creation of the corpus is focused on the mandatory exception or limitation for text and data mining (TDM) provided for in Art. 4 of the DSM Directive. This provision allows reproductions and extractions of lawfully accessible works and other subject matter '*for the purposes of text and data mining*'. In addition to the limitations regarding text and data mining for the purposes of scientific research, which are now mandatory under Art. 3 of the DSM Directive, Art. 4 of the DSM Directive also covers commercial uses.[17] The purpose of text and data mining is defined in Art. 2 No. 2 of the DSM Directive 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*'. Machine learning as a basic technology of artificial intelligence also involves generating information about patterns, trends, and correlations within the meaning of this definition.[18] The explanatory memorandum to the German implementation in Sec. 44b of the German Copyright Act (UrhG) sees machine learning as a relevant application of the TDM limitations.[19] The reproduction of works and other subject matter contained in the training data in the course of the training can therefore be covered by Art.

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[14] See for example, *HiQ Labs, Inc. v LinkedIn Corp.,* No. 31 F.4th 1180, 1186-1187 (9th Cir. 2022); *Pesch/Böhme,* GRUR 2023, 997 (998).

[15] Doubting from the perspective of the requirements of international law (Art. 9 para. 1 of the Berne Convention) *Senftleben,* IIC 2022, 1477 (1501 seq.).

[16] *De la Durantaye*, ZUM 2023, 645 (648).

[17] Cf. recital 18 subpara. 1 sentence 1 DSM Directive; on implementation in Germany Amtl. Begr. BT-Drucks. 19/27426, 87.

[18] *Baumann*, NJW 2023, 3673 para. 14: The barrier sounds, 'on an unbiased reading, as if it were tailored to the machine learning of AI'; *Lemley/Casey*, Tex. L. Rev. Vol. 99, No. 4 (2021), 743 (772 et seq.); *Kraetzig*, NJW 2024, 697 para. 8.

[19] Official explanatory memorandum BT-Drs. 19/27426, 60.

4 of the DSM Directive.[20] The automated analysis of the training data itself, on the other hand, is not covered by the provision, as it does not constitute a copyright-relevant act and therefore no exception or limitation is required. However, the automated analytical technique may require acts of copying for technical reasons, such as temporary storage in the random-access memory.[21] Such incidental reproductions will often be covered by the limitations created in implementation of Art. 5 para. 1 InfoSoc Directive (in Germany § 44a no. 2 UrhG, in France Art. L 122-5 nº 6 CPI), but the application of Art. 4 of the DSM Directive may also be considered.[22] The fact that the training data must be technically processed in order to be used for training is irrelevant, as such technically induced changes to the data structure do not constitute a transformation of the works contained therein, which German law expressly clarifies in Sec. 23 S. 3 UrhG.

Nevertheless, some authors consider the application of the TDM limitations to AI training to be incompatible with their purpose, arguing that generative AI is not about obtaining information, but instead aims to create identical or similar products that compete with the originals and thus the intellectual content of the works is being used for training purposes.[23] However, the fact that old business models are being challenged by new ones, is not, on its own, a sufficient reason for extending copyright protection.[24] Nothing else follows from the three-step test in Art. 5 para. 5 InfoSoc Directive.[25] The notion that the creation of new works is based on forms and ideas of pre-existing works is essential to the concept of copyright law.[26] From an economic point of view, copyright protection should therefore increase the cost of identical copying (i.e. restricting *competition by imitation*), while *competition by substitution* with other works, on the other hand, should be promoted by copyright law.[27] As long as the works in question are not taken into the parameters of the AI model in their specific expression, the interference with the right of reproduction associated with the creation of a corpus of training data for a generative AI model is no different than methods used for other forms of machine learning. In this respect, the legislative decision underlying Art. 4 of the DSM Directive that permits text and data mining to '*provide for more legal certainty in such cases and to encourage innovation also in the private sector*' must be taken into account.[28] A general licensing obligation would increase the costs of training generative AI

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[20] *Käde,* Kreative Maschinen und Urheberrecht, 81 et seqq.; *de la Durantaye,* ZUM 2023, 645 (651); *Hofmann,* WRP 2024, 11 para. 23; *Hofmann*, ZUM 2024, 166 (170 et seq.); *Konertz/Schönhof,* WRP 2024, 289 para. 30; *Maamar*, ZUM 2023, 481 (483, 485); *Meys*, GRUR Int. 2020, 457 (466); *Möller-Klapperich,* NJ 2023, 144 (147); *Hacker,* GRUR 2020, 1025 (1031); *Vesala*, IIC 2023, 351 (357); cf. also *Denga,* RuZ 3/2022, 182 (193): TDM access as a 'legal policy filter for the reach and impact of artificial intelligence'.

[21] See *Raue*, ZUM 2021, 793.

[22] *Konertz/Schönhof*, WRP 2024, 289 para. 29; *Siglmüller/Gassner,* RDi 2023, 124 para. 12.

[23] *Schack*, NJW 2023, 113 para. 8; similarly, *v. Welser,* GRUR-Prax 2023, 516 para. 19; expressing doubts *Baumann,* NJW 2023, 3673 para. 14.

[24] See also *Hofmann*, WRP 2024, 11 para. 24 et seqq.; *Raue*, ZUM 2024, 157 (159); contra *Möller-Klapperich,* NJ 2023, 144 (147).

[25] Contra *Dornis/Stober,* Urheberrecht und Training generativer KI-Modelle (legal opinion), 103 et seqq., available at https://ssrn.com/abstrac=4946214; on the international scope of the three-step test and its content *Rosati*, No Step-Free Copyright Exceptions: The Role of the Three-step in Defining Permitted Uses of Protected Content (including TDM for AI-Training Purposes), 46(5) European Intellectual Property Review (2024), 262-274, available at https://ssrn.com/abstract=4629528.

[26] Cf. on German law Amtl. Begr. BT-Drucks. IV/270, 63.

[27] Fundamentally *Landes/Posner*, JLS Vol. 18, No. 2 (1998), 325 (332 et seqq.); *Stieper*, Rechtfertigung, Rechtsnatur und Disponibilität der Schranken des Urheberrechts, 82 et seqq., with further references.

[28] Recital 18 subpara. 1 sentence 4 DSM-RL.

models to such an extent that only the most financially-robust companies would be able to afford the expense. Smaller companies would instead refrain from developing generative AI models or fall back on copyright-free data, which could have a negative impact on model performance.[29]

Instead, the opt-out solution provided by EU law in Art. 4 (3) of the DSM Directive is intended to balance copyright interests: By declaring a reservation, which must be machine-readable in the case of content made publicly available online, rightholders can waive the application of this copyright exception. In recitals 105 and 106, the AI Act expressly mentions the TDM exceptions in connection with the development and training of large generative AI models and emphasizes that the providers of such models must obtain the consent of the rightholders concerned if they wish to operate text and data mining with works for which the rightholders have reserved their right to use. In order to identify and comply with any reservations pursuant to Art. 4 para. 3 of the DSM Directive, Art. 53 para. 1 lit. c of the AI Act stipulates that providers must have a strategy on copyright and related rights (see C. I. below). Thus, the AI Act also implicitly contains the legislative decision that Art. 4 of the DSM Directive covers reproductions made in the course of AI training.[30] However, the machine-readability of the reservation required by Art. 4 para. 3 DSM Directive for content made available online requires the development of a technical standard that provides those who wish to make use of the limitation the ability to read and process the reservation automatically.[31] In addition, the opt-out mechanism is likely to fail with content that is freely available on the internet and has not been put online by the rightholders themselves; if the rightholders have not put the content online themselves, they cannot attach a reservation.[32] The legislator can therefore be criticised for having exempted the acts of reproduction covered by Art. 4 of the DSM Directive from copyright protection before the technical requirements for an 'asset-based' reservation of rights had been created. In order to ensure appropriate remuneration for creators for use of their works and subject matter, rightholders demanded that the AI Act include further regulation of the training of generative AI models and express exclusion of the application of TDM exceptions.[33] However, their demands were not met.

2. USA

The legal situation in the USA is essentially the same as in the EU: while US copyright law does not contain any specific exceptions for text and data mining, several courts have confirmed that reproductions for these purposes are covered by the general '*fair use*' clause in 17

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[29] *Lemley/Casey,* Tex. L. Rev. Vol. 99, No. 4 (2021), 743 (770); *de la Durantaye*, ZUM 2023, 645 (649).

[30] See also *Caquet*, L'Intelligence Artificielle Générative : L'Union Européenne relaie le Droit d'Auteur au Rang des Exceptions, 24 May 2024, available at https://www.village-justice.com/articles/intelligence-artificielle-generative-union-europeenne-relai-droit-auteur-rang,49827.html; *Bomhard/Siglmüller,* RDi 2024, 45 para. 25; *Buchalik/Gerhmann,* CR 2024, 145 (151).

[31] Excerpt on the formal requirements for the declaration of reservation *Hamann*, ZGE 16 (2024), 113 (130 et seqq.).

[32] *V. Welser*, GRUR-Prax 2023, 516 para. 32; *Baumann,* NJW 2023, 3675 para. 20; *Vesala,* IIC 2023, 351 (357).

[33] See Copyright Initiative, Proposed wording for the AI Act (version of 14 June 2023), available at https://urheber.info/media/pages/diskurs/positionspapier-zu-kunstlicher-intelligenz/0653d89f1d-1697140219/230919_iu-formulierungsvorschlage-fur-den-ai-act-_mit-begrundung_endg.pdf.

U.S.C. § 107.[34] However, the question of whether this case law is transferable to the training of generative AI still remains. The provision in 17 U.S.C. § 107 allows the courts to determine which uses are 'fair', and therefore permissible without the author's consent, on a case-by-case basis using four factors for consideration. The first factor ('*purpose and character of the use*') and fourth factor ('*effect of the use upon the potential market for or value of the copyrighted work*') have the greatest practical relevance.[35] Particularly with regard to the categorisation of the use as '*transformative*' under the first factor[36] and the effects on the primary market to be taken into account under the fourth factor, the discussion is guided by arguments similar to those put forward regarding the application of limitations to AI training under Art. 4 of the DSM Directive.[37] Considering the high degree of flexibility of the decisive factors for the assumption of '*fair use*', it is difficult to predict how the courts will decide this question. However, a distinguishing factor for the legal situation in the US as compared to the EU is that, in the case of an application of 17 U.S.C. § 107, a reservation expressed by the rightholders has no effect.[38]

III. International expansion and diffusion of AI production

Dealing with technically-complex training measures under intellectual property law is becoming more complicated due to the international scope of the issue. Training, design, and output can be distinguished not only by the way in which they are regulated, but also by their localisation. To date, the most efficient models have been designed and trained in the USA; their application, on the other hand, takes place worldwide, and does so notably in the EU. There is also a tendency towards extensive diffusion of the production and application steps, particularly in the case of open source-based models, which are developed and optimised by a more or less wide-spread network of programmers and trainers.[39] In some models, decentralised crowdworking by any interested party is a primary concern, such as under the keyword '*democratic access*' in the *Llama* model from the provider *Meta*.[40] Localising a specific training sequence can be difficult in individual cases, especially in open source models. The circumstances surrounding the production of AI and the technology itself, are subject to constant change and can be found in different business model-specific forms. Yet, the only decisive factor for this article is that the production of AI is a complex, multi-causal process in which many players are involved. There is no certainty about the final validation of decentralised input by the provider of the AI model before it is placed on the market or

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[34] See for example, *Authors Guild v. Google, Inc,* 804 F.3d 202, 225 (2d Cir. 2015) on Google Book Search; further evidence in *de la Durantaye,* ZUM 2023, 645 (648).

[35] For an overview see *Stieper*, Rechtfertigung, Rechtsnatur und Disponibilität der Schranken des Urheberrechts, 10 et seqq., 31 et seqq.; on the historical development of the fair use doctrine, see *Campbell v. Acuff-Rose Music, Inc.,* 510 U.S. 569 (1994), 576 et seqq.

[36] *Campbell v. Acuff-Rose Music, Inc.,* 510 U.S. 569 (1994), 579; on the relationship between *transformativeness* and *commerciality* of use *Liebenau*, ZUM 2023, 678 (680 et seqq.).

[37] See only *Lemley/Casey,* Tex. L. Rev. Vol. 99, No. 4 (2021), 743 (763 et seqq.); *Gillotte,* UC Davis L. Rev., Vol. 53, No. 5 (2020), 2655 (2679 et seqq.).

[38] *De la Durantaye,* ZUM 2023, 645 (649 et seq.).

[39] For example *Song/Agarwal/Wen,* The Impact of Generative AI on Collaborative Open-Source Software Development: Evidence from GitHub Copilot, 8 October 2023, available at https://ssrn.com/abstract=4856935.

[40] Https://llama.meta.com; see, however, *Widder/West/Whittaker*, Open (For Business): Big Tech, Concentrated Power, and the Political Economy of Open AI, 17 August 2023, available at: https://ssrn.com/abstract=4543807.

put into operation. Even if it is difficult to imagine that AI providers do not verify at all the contributions AI programmers and trainers make before the contributions take effect in their models and on the market, it is necessary to anticipate this argument as a possible defense in infringement proceedings. A '*diffusion of responsibility*' is therefore structurally inherent in copyright compliance,[41] which highlights the need for an effective attribution mechanism to establish responsibility and compliance with the relevant provisions of copyright law.[42]

IV. AI applications from the perspective of international copyright law

In copyright law, international situations are resolved through the interaction of two principles, the territoriality principle and the *lex loci protectionis* principle. The territoriality principle states that the effect of intellectual property rights is limited to the territory of the state that granted them or to the state that has provided binding conditions for their creation.[43] A single work is thus protected under several different national copyright laws. This means that, when it comes to works receiving protection by EU Member States, those copyrights are not valid in the USA or China. Accordingly, acts of use of these works that are carried out on American or Chinese territory do not constitute an infringement of European copyright law.[44] The localisation of the respective act of use is therefore critical: the copyright of an EU Member State cannot be infringed by the training of AI models carried out in the USA.

The *lex loci protectionis* principle follows the territoriality principle by providing a solution to the conflict of laws regarding the question which law is applicable to determine copyright infringement. Art. 8 para. 1 Rome II Regulation stipulates that 'the law of the country for which protection is claimed' applies to a non-contractual obligation arising from an infringement of copyright.[45] The validity of the *lex loci protectionis* principle is sometimes disputed; it has been argued that, regarding the questions of first ownership and the transferability of copyright, the country of origin principle should apply instead.[46] However, it is unanimously agreed that scope of legal protection, i.e. the content, limits, and duration of the right against which infringement is asserted, is determined according to

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41 On the concept *Beck,* Gegengifte: Die organisierte Unverantwortlichkeit, esp. p. 96 et seqq.; for more recent technical solutions for tracing output to datasets, however, see *Maini et al*, LLM Dataset Inference.

42 On attribution as an operation motivated by legal policy to justify legal obligations, see *Denga*, Zurechnung, p. 28 et seqq.

43 For German law, see for example, BGH, GRUR 2011, 227 para. 20; *Staudinger/Fezer/Koos*, EGBGB/IPR Internationales Immaterialgüterprivatrecht, para. 1064 each with further references; the principle of territoriality is also recognised in EU law, see ECJ, GRUR 2006, 50 para. 46; ECJ, C-170/12, Peter Pickney/KDG Mediatech AG, ECLI:EU:C:2013:635 para. 39; ECJ, C-441/13, Pez Hejduk/EnergieAgentur.NRW GmbH, ECLI:EU:C:2015:28 para. 22, 36.

44 *Schricker/Loewenheim/Katzenberger/Metzge*r, Urheberrecht, Vorbem. §§ 120 ff. UrhG para. 112.

45 See also ECJ, GRUR 2012, 1245 para. 31 et seq. Whether the work in question actually enjoys copyright protection there and the existing copyrighted rights have actually been infringed is irrelevant for determining the applicable law: BGH, GRUR 2016, 487 para. 19; BGH, GRUR 2016, 490 para. 25.

46 Cour de Cassation, 22 December 1959, Recueil Dalloz 1960, 93; *Obergfell,* Filmverträge im deutschen materiellen und internationalen Privatrecht, 274 et seq.; *Goldstein/Hugenholtz,* International Copyright: Principles, Law, and Practice, 125 et seqq.; *Schack,* Urheber- und Urhebervertragsrecht, para. 1134 et seq., 1146 with further references.

the *lex loci protectionis* principle.[47] The same applies to the requirements for copyright protection of an object as a 'work'.[48] This is based on the consideration that only the law of the state on whose territory protection is claimed can reasonably define the extent to which commercial or private users in this territory must regard the law in question. According to Art. 3 Rome II Regulation, the *lex loci protectionis* principle also applies if a third country jurisdiction is concerned.

The *lex loci protectionis* principle also determines whether cross-border acts of exploitation or domestic effects of acts performed abroad infringe a domestic copyright.[49] That said, the localisation of the infringing act also depends on the content of the allegedly infringed right. For example, a distribution of the work covered by the author's distribution right takes place in every Member State in which copies of the work are offered for sale to potential customers, even if those customers collect the goods abroad.[50] In contrast, the domestic reproduction right only applies if the relevant reproductions are printed, copied, or electronically stored within the country.[51] When training generative AI models, an act of use relevant to copyright law only takes place to the extent that the works or other protected subject matter used for the training are copied to the training data corpus and thus reproduced. The fact that the model trained abroad is later offered in an EU Member State does not establish a sufficient domestic connection of this act of reproduction. This is because the works used as training data are generally not stored in the parameters of the AI model which has been trained with them (see A. above). Only the general characteristics of the work are adopted as vectorised information, so that the neural network does not represent a reproduction of the training data, even if the AI is able to (partially) reconstruct it when appropriate instructions (prompts) are entered.[52] The offering of the AI model therefore does not affect any exploitation right granted by copyright. If the copying processes that take place during training are controlled from US territory and the works concerned are physically stored on storage media located in the USA, there is no domestic act of exploitation by the AI provider that could be governed by the requirements of European copyright law.[53] If a European copyright holder wishes to take action against the use of his works for AI training in the USA, only US copyright law applies to the associated acts of reproduction. If the courts in the USA (or Europe) in such case classify the training of generative AI models as copyright-permissible *fair use* within the meaning of Sec. 17 U.S.C. § 107, a reservation of use declared by the affected rightholders has no effect. In contrast, a machine-readable reservation in the case of training within the EU would mean that the use of the works in question would have to be licensed for text and data mining. Thus, by selecting the location for carrying out the AI training, AI providers can choose a legal system that is favourable to them.[54] This *de facto*

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47 Undisputed in this respect, see only BGH, GRUR 2016, 490 para. 24; BGH, GRUR 2018, 178 para. 13; *Leistner Leible/Ohly*, Intellectual Property and Private International Law, 97 (103 et seq.); *Metzger,* JZ 2010, 929 (933).

48 BGHZ 155, 257 (261); schweizBG BGE 113 II 190 (193) = GRUR Int 1988, 263.

49 *Schricker/Loewenheim/Katzenberger/Metzger,* Urheberrecht, Vorbem §§ 120 ff. UrhG para. 131.

50 ECJ, C-516/13, Dimensione Direct Sales Srl, Michele Labianca/Knoll International SpA, ECLI:EU:C:2015:315 para. 28 et seqq.; ECJ, C-572/17, Imran Seyd, ECLI:EU:C:2018:1033 para. 27; BGHZ 171, 151 para. 28 et seqq.; BGH, GRUR 2015, 264 para. 34; *Stieper*, ZGE 3 (2011), 227 (236 et seqq.).

51 BGH, GRUR 2015, 264 para. 34; *Henke,* ZGE 12 (2020), 306 (312); *Schricker/Loewenheim/Katzenberger/Metzger,* Urheberrecht, Vorbem §§ 120 UrhG et seqq. para. 132, 144; *Dreier/Schulze,* UrhG, Vorbem §§ 120 ff. UrhG para. 110 with further references.

52 *Konertz/Schönhof*, WRP 2024, 289 para. 22 et seqq.; *Käde*, ZUM 2024, 174 et seqq.

53 See BGH, GRUR 2010, 628 para. 17.

54 *Maamar*, ZUM 2023, 481 (486).

regulatory arbitrage renders the specific assessments of European copyright law meaningless, especially regarding the central reservation of rightholders vis-à-vis text and data mining (see B. II. above). This gap in copyright protection is now being closed by the AI Act.

C. Copyright compliance as a provider obligation under the AI Act

I. The provider obligations of the AI Act

Essentially, the AI Act is an act of product safety law that initially sets out graduated, qualitative requirements for AI systems. A key feature of the act is its risk-based, use-dependent approach. The AI Act bans certain AI systems altogether - such as applications for social scoring and user manipulation.[55] For some systems, such as chatbots, emotion recognition programmes, and *deep fakes,* the AI Act provides for '*lighter'* transparency and labelling obligations.[56] The regulation focuses on high-risk AI systems, which it subjects to far-reaching quality requirements.[57] It was only late in the legislative process that quality requirements for generative AI models,[58] and obligations for their providers, were included. At this time, a tiered model was also chosen for regulating the technical performance of the model in a purpose-neutral manner.[59]

AI models with a general purpose are defined under Art. 3 No. 63 of the AI Act as models that have the capacity to serve a variety of purposes, both through direct use or as integrated into other AI systems. This definition thus includes as AI models with a general purpose the well-known models *GPT-4, Llama*, and *Gemini*. [60]

All providers of general-purpose AI models must fulfil comprehensive documentation obligations vis-à-vis the AI supervisory authorities and users, Art. 53 para. 1 lit. a) and b). From the perspective of intellectual property law, however, Art. 53 para. 1 lit. c) is critical, as it obligates all providers, without exception, to implement a copyright strategy.[61] This requirement ensures conformity with EU copyright law, specifically with the regime for text and data mining as laid out by the DSM Directive. The content used to train the AI must be made publicly available in a detailed summary in accordance with a template provided by the Office for Artificial Intelligence, Art. 53 para. 1 lit. d).

II. Extraterritorial effect of EU copyright law for providers of generative AI

The obligations under Art. 53 of the AI Act do not contain any specific requirements for their local scope of application. Rather, the general scope of application of the AI Act is relevant; Art. 2 of the act concerns all providers that place AI models on the market, put AI models into operation in the EU, or place AI models with a general purpose on the market, regardless of whether or not they are established in the EU. The market location is thus the

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55 See Title II of the AI Act.

56 See Title IV of the AI Act.

57 Cf. Art. 8-15 AI Act; with overview and further references *Denga,* CR 2023, 277, 279 et seq.

58 Art. 3 No. 63 AI Act.

59 Cf. Art. 51-55 AI Act; on the technical logic of the distribution of responsibility *Peukert,* GRUR Int. 2024, 497 (507).

60 See also *Peukert,* GRUR Int. 2024, 497 (499 et seq.).

61 In particular, the open source exception in Art. 53 para. 2 does not apply to copyright provisions.

only relevant factor for the regime of provider obligations under the AI Act. Conversely, the place of construction of the AI model, even the place of training, is irrelevant; thus, lex shopping is ineffective and the legal policy objectives of European copyright law, specifically the preservation of the rightholders' power of disposal over their content in text and data mining, can also remain valid in international AI production processes. The minimum content defined by the EU copyright directives is decisive here; specific national implementation is not important. In this way, directives acquire direct effect vis-à-vis private legal entities outside the EU, which is entirely compatible with the transposition provison for directives in Art. 288 para. 3 TFEU, as it merely represents a condition of effectiveness within the competence structure between the EU and the Member States.[62]

Sentence 3 of recital 106 reinforces the interpretation that European copyright law must also be observed while training AI models outside the EU if the models will be placed on the market in the EU. Sentence 3 of recital 106 proclaims: *'[a]ny provider placing a general-purpose AI model on the Union market should comply with this obligation, regardless of the jurisdiction in which the copyright-relevant acts underpinning the training of general purpose AI models take place*'. Although the recitals are of course not binding, they are an aid to interpretation and the clear wording leaves no doubt that market access to the EU alone is the relevant act for establishing the obligation, not the training measures.

The regime of the DSM Directive for text and data mining is emphasised in sentence 2 of recital 106, as well as in recital 105. Considering that the training of general purpose models, in particular large generative AI models, requires '*access to vast amounts of text, images, videos and other data*' that may be protected by copyright or related rights, *'[a]ny use of copyright protected content requires the authorisation of the rightsholder concerned unless relevant copyright exceptions and limitations apply*'. Therefore, regarding the possibility for rightholders to reserve their rights to their works or other subject matter as provided for in Article 4 para. 3 of the DSM Directive, *'providers of general purpose AI models need to obtain an authorisation from rightholders if they want to carry out text and data mining over such works*'. To identify and comply with such a reservation of rights, providers of general purpose AI models should introduce a strategy for compliance with EU copyright and related rights in accordance with Art. 53 para. 1 lit. c of the AI Act.

The obligation '*to comply with Union copyright law*' addressed by the strategy nevertheless leaves some room for interpretation.[63] It can be argued that EU copyright law must only be '*complied with*' to the extent that it applies under the relevant conflict of laws rule.[64] According to the above, this is not the case with regard to acts of reproduction carried out during AI training, as long as those acts are carried out on US territory and thus are outside the scope of EU copyright law.[65] If sentence 3 of recital 106 is interpreted in such narrow way, an AI provider's strategy would also be compliant with the AI Act if it only required the AI provider to comply with a rightholder's reservation if the training of the AI model offered took place on EU territory. The addition '*regardless of the jurisdiction in which the copyright-relevant acts … take place*' would then only refer to the obligation to introduce a strategy for compliance with EU copyright law at all, but not to its content.

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62 However, *Peukert,* GRUR Int. 2024, 497 (504) is critical of these aspects.

63 Cf. *Peukert*, GRUR Int. 2024, 497 (505 et seq.).

64 Cf. position paper 13921/23 of the Spanish Council Presidency on the preparation of the trialogue, 17 October 2023, available at https://data.consilium.europa.eu/doc/document/ST-13921-2023-INIT/en/pdf: Providers of foundation models should demonstrate that they have taken adequate measures to ensure the models are trained in compliance with *applicable* Union copyright law, in particular respect the opt-out from the TDM exception (emphasis added by the authors).

65 See above B. IV.

However, the recitals of the AI Act suggest that the legislator deliberately included the addition in order to bind all AI providers to the copyright standards applicable in the EU, regardless of where the training takes place. Using the lever of product safety law of the AI Act, the requirements of EU copyright law with regard to the reproduction of copyright-protected works and other subject matter during training would thus *de facto* also extend to acts of use that the harmonised copyright regimes of the EU Member States do not apply to, according to the conflict of laws rules.[66] From a formal point of view, this does not constitute a departure from the principle of territoriality:[67] the AI Act does not raise the question of qualifying the act of use taking place abroad as an infringement of domestic copyright. No fiction can be inferred from the AI Act to the effect that the act of reproduction taking place abroad constitutes an act of use relevant to domestic copyright.[68] Rather, similar to a supply chain law,[69] the AI Act links an AI model's access to the European market to its compliance with applicable legal requirements within the entire value chain; however, the AI Act itself does not completely legally mandate the material requirements itself. Although it is true that, according to Article 2 para. 8, the AI Act does not apply 'to any research, testing or development activity regarding AI systems or AI models prior to their being placed on the market or put into service', this cannot be understood to mean that training activities that take place prior to placement on the market are categorically exempt from the influence of the AI Act.[70] Rather, it merely expresses that the act of placing a model on the market, or putting it into service, is decisive for installing the obligations under the AI Act; this also includes all consequences resulting from any training that took place beforehand.[71]

The serious consequence of the extraterritorial effect of EU copyright law for providers of generative AI models is that the declaration of reservation can also be made by US authors in the USA in accordance with Art. 4 para. 3 of the DSM Directive. The reservation only must be made 'expressly in an appropriate manner' and be recognisable in the EU, as EU copyright law then offers protection.[72] As soon as a provider of an AI model wants to offer their product in the EU, reservations from authors from all over the world must be taken into account.

III. Justification approaches

Several approaches can be found to justify such a broad extraterritorial effect of EU copyright law by means of the AI Act.

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66 This is also the understanding of *Bomhard/Siglmüller,* RDi 2024, 45 para. 25: The AI Act 'expressly requires hypothetical (!) compliance with EU copyright law in AI training abroad'.

67 Contra *Bomhard/Siglmüller,* RDi 2024, 45 para. 25; *Buchalik/Gehrmann,* CR 2024, 145 (151); more cautiously *Hofmann,* EuZW 2024, 541 (542): at least a mediate conflict; accord however *Dornis/Stober*, Urheberrecht und Training generativer KI-Modelle, 127 et seq.

68 See *Henke*, ZGE 12 (2020), 306 (312).

69 Art. 25 explicitly refers to 'responsibilities along the AI value chain', albeit only after the design phase; the new CSDDD (EU 2024/1760) provides a blueprint for comprehensive responsibility in the supply chain. Supply chains and complex contractual structures are prime examples of an ethically and politically motivated allocation of responsibility across known legal boundaries, see *Denga*, Zurechnung, 174 et seqq.

70 In this sense also *Peukert,* GRUR Int. 2024, 497, 505.

71 However, this also means that the timing of the training is not decisive for compliance with the obligation to draw up a copyright strategy that complies with the applicable Union law standards.

72 *Peukert*, GRUR Int. 2024, 497, 506, is stricter, focussing on the hosting of works in the EU.

1. European level playing field

First, sentence 4 of recital 106 itself directly mentions the level playing field for all providers of generative AI: providers that do not comply with EU standards must not gain a competitive advantage in the EU internal market as a result. The competitive advantage from a lack of compliance with EU copyright law would already consist of savings in licensing costs, as well as savings in clearing management and negotiation costs for the individual license transactions.

Article 53 para. 1 lit. c) of the AI Act thus fits into the broader line of development of European commercial law, which aims to create uniform conditions for competition in the internal market in order to create a *level playing field*, including in trade relations with third countries.[73]

The level playing field addressed here clearly does not only have an internal EU dimension. The economic weight of the European single market as a sales target for global markets is deliberately used to make European values and rules effective as standards for corporate behaviour beyond the borders of the EU. The EU's more recent CSR supply chain regulation is also aimed at value-based import control of goods and services destined for the European single market.[74] Eventually, the associated *Brussels Effect* is based on the fact that it is too expensive for producers to harmonise their own supply across different jurisdictions. Consequently, for economic reasons, producers choose the strictest regulatory standard.[75] The market place approach (in terms of *lex loci solutionis*) as a starting point for product and behavioural regulation has proven to be very effective, particularly for data protection law, where a global adoption of European data protection standards has been observed.[76] The AI Act is also already casting its shadow ahead; an obligation to create and publish a sufficiently-detailed summary of the works used to train a generative AI model is also being installed in US law, modelled on Art. 53 para. 1 lit. d of the AI Act.[77] The EU's latest policy plan for the digital single market from 2020 for *shaping Europe's digital future* clearly focuses on '*fairness*' in business law,[78] but it also emphasises that market access and public interests '*that go beyond competition or economic considerations*' must be safeguarded.[79] The last point in

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[73] See, for example, European Commission, Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the trade policy strategy 'Trade for all': A progressive trade policy – Mastering globalisation, COM(2017) 491 final, 6; European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Long-term competitiveness of the EU: Looking beyond 2030, COM(2023) 168 final, 20. Classifying this development more fundamentally *Erdmann, Max/Reinhold*, *Philipp*, in: Heger/Gourdet (eds.), Fairen Wettbewerb in der Europäischen Union sichern, 145; *Bluth*, Europe's Trade Strategy for the Age of Geoeconomic Globalisation, CEPR Press, esp. 30 et seq., 40 et seq.

[74] Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937, in the resolution of 15 March 2024.

[75] *Bradford*, The Brussels Effect, 2; see also *Wagner*, Künstliche Intelligenz – die EU als globaler Regulierer?, FAZ, 3 March 2024, available at https://www.faz.net/-gqi-bn9ag.

[76] Cf. *Frankenreiter,* Yale Journal on Regulation, Vol. 39 (2022), 1155-1217, with empirical data for the USA.

[77] See the proposed Generative AI Copyright Disclosure Act by California Congressman Adam Schiff, available at https://schiff.house.gov/imo/media/doc/the_generative_ai_copyright_disclosure_act.pdf.

[78] COM(2020) 67 final, 8 et seqq.

[79] COM(2020) 67 final, 10.

particular is a momentous turning point in EU digital regulation. Accordingly, the AI Act is also explicitly aimed at safeguarding public interests, such as fundamental rights.[80]

The accentuated reference to the market place as a regulatory lever can also at least partially compensate for the EU's dwindling political weight in international bodies such as the World Intellectual Property Organisation (WIPO), where it is no longer sufficient for unilateral standard-setting.[81]

2. Reversal of diffusion through intermediary liability

Resort to the provider as a qualified person responsible in a complex and diffusing design and training process is also important for the justification of European production standards as a distribution condition for AI models. In the multi-causal and global genesis of AI models described above (B. III.), holding users responsible is rarely possible, even if EU intellectual property law were universally applicable, and especially when EU intellectual property law is actually applied in accordance with the *lex loci protectionis* principle.

Assigning responsibility to intermediaries is a tried and tested means of regulation, particularly in large-scale multi-causal events.[82] The platform economy, where platform providers are held liable for user behaviour, has become a model here. However, due to the low-threshold conditions of user participation in the platform market, platform responsibility is largely organised according to the *notice and take down* principle, according to which the service provider is only liable once they have specific knowledge of the 'bad' content,[83] or if they fail to take reasonable filtering measures despite being provided with the necessary information by the rightholders.[84] For providers of AI models that pursue a cooperative and open approach to the training and design of their models, such a reduced liability is not appropriate, as they can in fact control user interaction with their product much more intensively than intermediary platforms can control the exchange between their users.

By making the model provider liable, a new liability subject is created for the issue of copyright compliance, which means that copyright can be enforced more effectively overall. Unlike individual actors involved in training or model design regarding copyright, the provider cannot evade the enforcement of the AI Act. On the one hand, these are already de facto large companies with very prominent management personnel, and on the other hand, under Art. 54 of the AI Act, providers of generative AI are now also obliged to establish a representative office in the EU.

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80 See recitals 3, 5 and 7.

81 *Stieper*, GRUR Int. 2011, 124 (125).

82 Cf. *Goldsmith/Wu*, Who Controls the Internet?, esp. chapter 5; see also *Denga*, Zurechnung, 180 et seqq.; on the function of legal responsibility allocation as 'uncertainty absorption' in complex economic structures see *Luhmann*, Organisation und Entscheidung, 183 et seqq.

83 Cf. Art. 3-9 DSA.

84 Specifically on platforms for sharing online content see Art. 17 para. 4 DSM Directive. In this respect, the German implementation distinguishes between 'simple' blocking in accordance with the *notice and take down principle* (Sec. 8 UrhDaG) and 'qualified' blocking in accordance with Sec. 7 para. 1 UrhDaG, which must 'ensure in the best possible way' that a work is not publicly reproduced and will not be available for this purpose in the future.

3. Providers are Cheapest Cost Avoider

There are also strong economic reasons in favour of defining the provider of AI models as the addressee of copyright compliance obligations for AI training. In search of the agent who can best avoid the damage resulting from unauthorised use for the authors of protected works,[85] the providers of AI models have to be put in the first line. This is because they control both placement on the European market of the model designed and trained on the basis of unauthorised use and the personnel involved in its creation, as well as the intermediate technical production steps from model training to the end user interface.

The question of the most efficient allocation of responsibility for AI training must be based on the control of placement on the market of the AI model. This is because placement on the market is what causes economic damage to authors from the unauthorised use of their work in the first place. It is only from this point in time, when a product is commercialised on the European market, that contains the authors' uncompensated contribution to the training data.

The employer's and client's right to issue instructions is also traditionally the point of reference for the efficient allocation of responsibility, as this is an effective, legally enforceable, and sanction-proven instrument for enforcing the duty of legality within the company.[86]

On the contrary, obligations placed on the users of generative AI systems would not prove fruitful at this point, as users do not have sufficient knowledge of the model and system composition. It also seems implausible to place obligations on creators of works beyond the declaration of reservation under Art. 4 para. 3 DSM Directive. Such obligations would eventually lead to creators withholding works from the digital space, at least to competing for the most effective digital security technology, for example against web scraping. However, such a race of digital arms is not cost-efficient and offers considerable potential for damage, especially in phases of asynchronous technical means between attacker and defender.

Ultimately, due to the aforementioned diffusion phenomena in the decentralised production of AI models, it is not plausible to rely on the compliance of the trainers themselves. The current practices of AI training refute any petition here, especially since European copyright law is not legally relevant to the training itself under the *lex loci protectionis* principle (for example, as it is in the USA).

4. Logic of product safety law

Considering that product safety is a central prerequisite for the internal market capability of products and services, the AI Act fits into the traditional European concept of product safety law.[87] Despite some innovations, such as the supervisory obligations of AI systems' users, it is at its core a catalogue of product safety obligations that must be complied with as an objective condition of market participation.

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[85] Fundamentally *Calabresi,* The Costs of Accidents, 136 et seqq.; *Coase,* JLE 1960, 146 et seq.; *Demsetz,* American Economic Review, Vol. 57, No. 2 (1967), 31 et seqq.

[86] On the concrete range of measures *Arlen/Kraakmann,* NYU Law Review Vol. 72, No. 4 (1997), 687 (692 et seqq.); abstract 'control of danger': *Canaris,* Vertrauenshaftung im deutschen Privatrecht, § 18 at fn. 46.

[87] See only recitals 9 and 156.

The requirements for product safety are currently harmonised for safety-relevant products, like medical devices and toys;[88] in the future, these requirements will also be harmonized for networked digital products under the Cyber Resilience Act.[89] The European legislator shows, in the Cyber Resilience Act, that it is content with the formulation of general safety requirements. This 'New Approach' has been promoted since 1985 and was also employed in Chapter V of the AI Act for generative AI.[90] These safety requirements, which are still formulated in general terms, are supplemented by reference to technical standards developed by national or European standardisation organisations.[91] While these standards are not binding, partially because of their private genesis and in order not to exclude innovative technical safety solutions, there is significant incentive to comply with them. This incentive arises from the presumption of conformity when complying with them - naturally the presumption only is valid for those quality requirements for which the standards determine rules. This mechanism is reflected in Art. 40 of the AI Act. In addition, Art. 41 of the AI Act authorises the *Commission* to draw up its own 'common specifications', which may supersede existing private standards and which must also be complied with voluntarily[92] and provide a presumption of conformity.

As a product safety law, the AI Act is enforceable under supervisory law.[93] As with other products, only objective compliance at the time of placement on the market is relevant;[94] a subjective element is not relevant for this supervisory dimension.[95] This makes it clear that the connecting factor of product safety law is solely the object of trade in the European internal market, not the person of the trader. Furthermore, the place of production of the object of trade is also irrelevant. Rather, product safety law is linked to the market location, as it is about protecting users in the European Union.

Certainly, the copyright-related charging of the protective purposes of product safety law is a novelty. Traditionally, European product safety law is concerned with protecting the life and limb of consumers. The idea of 'safety', which is mentioned separately by the law, alongside 'health',[96] is also fundamentally related to consumers – and not to other *stakeholders,* such as the holders of intellectual property rights. On the other hand, nowhere in EU primary or secondary law is it ruled out that product safety law can be used as a vehicle for other public interest objectives, such as the structural institutional protection of intellectual property.[97] There is no *numerus clausus* for the objectives of legal acts that appear in the

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88 The old legal framework with detailed harmonisations still applies to Annex II Sec. B.

89 See, for example *Wiebe/Daelen,* EuZW 2023, 257; *Voigt/Falk,* MMR 2023, 88.

90 Expanded and supplemented in 2008 by the New Legislative Framework, see *Kapoor/Klindt,* EuZW 2008, 649.

91 Since June 2021, CEN and CENELEC have had the Joint Technical Committee CEN-CENELEC/JTC 21 'Artificial Intelligence', whose tasks are to identify and, if necessary, adopt existing international standards, develop technical standards themselves, support European legislation and implement the CEN-CENELEC roadmap for AI.

92 Arg. e. Art. 41 para. 4 AI ACT.

93 In addition, C. III.

94 Placing on the market overtakes the research, testing and development phase, to which the AI Regulation does not apply, Art. 2 (8); nevertheless critical *Peukert*, GRUR Int. 2024, 497, 505.

95 Of course, fault is relevant for any parallel claims for damages under civil law.

96 See the definition of 'safe product' under Art. 3 No. 2 Regulation 2023/988.

97 *Peukert*, GRUR Int. 2024, 497, 498 et seq., who, however, neglects the aspect of institutional protection as a public interest objective, is critical of the merger concept. On the convergence of private and public law, see only *Hellgardt,* Regulierung und Privatrecht.

guise of product safety law.[98] Conversely, interests that are deliberately transported by the legislator through the vehicle of product safety law enjoy all of its advantages, in particular the market place as an effective connecting factor.

IV. Copyright compliance in the provider organisation

Providers of generative AI models therefore face a strong compliance responsibility when training their models; regardless of the organisational form or of the jurisdiction in which the training takes place, the providers must comply with European copyright law by taking 'appropriate measures'.[99] The implementation of this responsibility is not trivial at all; however, it can be based on the tried and tested instruments of compliance in other complex regulatory areas which are able to cope with international and organisational diffusion phenomena.[100]

Organisational measures are key:[101] copyright responsibility must be anchored at the management level of the provider of an AI model. Copyright compliance must be a central aspect of all business decisions and must therefore be on the agenda of management meetings on a periodic and *ad hoc* basis. Management does not have to take personally responsibility for copyright compliance, but it must at least delegate its implementation and the resolution of technical issues within the organisation.

The framework and reference for delegation is, in fact, a Code of Conduct[102] for those directly and indirectly involved in AI training. Clear instructions on behaviour are formulated, in particular with regard to reservations of use declared by the rightholders: if a reservation is found in machine-readable form, the material may not be read out in text and data mining. Material that has been placed in the digital space under a text and data mining reservation may only be used if an individual licence is requested and also granted. The Code of Conduct must be drawn up by suitably qualified personnel and personally validated by the management. The management must positively order its validity within the organisation and stand up for it, not least through accompanying rhetoric and communication ('tone from the top'). A simple 'don't be evil'[103] should only suffice as a basic tone vis-à-vis the downstream specialist departments. The requirements of the Code of Conduct must be binding both in the employment contract and other contractual relationships between the provider organisation and the persons involved in the training, in particular freelancers and suppliers. The effectiveness of the Code of Conduct must also be ensured through training. In relation to suppliers, this means passing on the copyright compliance obligation per contract, as known from Art. 28 para. 3 GDPR for processing of personal data by a 'processor'.

Management may entrust the monitoring of copyright compliance to qualified specialist personnel who are equipped with sufficient material and human resources, are regularly

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98 Cf. for example on compliance under banking and capital market law *Hopt/Binder/Böcking*, Corporate Governance von Banken und Versicherungen, 248 et seqq.; specifically on corporate digital responsibility, *Möslein*, FS Hopt, 805; crit. *Noack*, ZHR 183 (2019), 105, 112.

99 See recitals 26, 109 p. 1 and Art. 101 para. 1 p. 2, para. 3 of the AI Regulation.

100 With an international perspective *Hopt*, ZHR 175 (2011), 444, 465.

101 These include, for example, Principle 4 of the German Corporate Governance Code 2022; Sec. 4 of the UK Corporate Governance Code 2024.

102 Which is also a central aspect of the (voluntary) compliance audit in accordance with IDW standard PS 980.

103 See the Google Code of Conduct from 2005, available at https://web.archive.org/web/20050204181615/http://investor.google.com/conduct.html.

required to report to the responsible department in the management, and have (derived) rights to issue instructions to the persons involved in AI training. In addition, advisory or supervisory boards with effective competences should be particularly concerned with this topic and be independent and professionally qualified.

In addition to organisational components, the compliance obligation also has technical components – specifically concerning the establishment of adequate filters in order to be able to automatically and effectively recognise the reservations declared by authors with regard to text and data mining.[104] Any remaining legal uncertainties regarding the technical manner of the reservation[105] can only work in the providers of AI models' favour, to the extent that they use the state of the art customary in the industry.[106] The codes of practice under Art. 56 of the AI Act are a central reference here,[107] though they may be supplemented or replaced by the Commission through common rules. [108]

V. Enforcement of copyright compliance under the AI Act

The enforcement of product safety law is binary, resting on the pillars of official supervision, as well as private compensation and injunctive relief.

The official supervision of harmonised product safety legislation is fundamentally based on the Market Surveillance Regulation,[109] under Art. 11 and 16 of which the Member State market surveillance authorities must take suitable and appropriate measures to avert risks in the event of non-compliance of a product; Art. 41 also provides for an exclusive power to impose sanctions.

However, the AI Act takes its own approach to this issue and provides for a special concept for supervision in Chapter VII ('Governance'), which is based on the interaction of the administrative network of the European AI Office, the European AI Body, and national market surveillance authorities. If AI systems are connected to products that are already subject to specific harmonised product safety legislation, such as in the case of AI systems for motor vehicles, the market surveillance authority responsible for the specific harmonised product safety legislation is, in principle, responsible under Art. 74 para. 3 subpara. 1. According to Art. 75 of the AI Act, the AI Bureau is also responsible for monitoring the compliance of generative AI models.[110] The competence of the AI Office is comprehensive,

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[104] See also *Kinsella*, What is GPTBot and Why You Want OpenAI's New Web Crawler to Index Your Content, Synthedia, 7 August 2023, available at https://synthedia.substack.com/p/what-is-gptbot-and-why-you-want-openais?utm_source=profile&utm_medium=reader2.

[105] Cf. only W3C Community Group, TDM Reservation Protocol (TDMRep): Final Community Group Report, 2 February 2024, available at https://www.w3.org/community/reports/tdmrep/CG-FINAL-tdmrep-20240202/; *Hamann,* ZGE 16 (2024), 113 (130 et seqq.); *Peukert,* GRUR Int. 2024, 497, 503 et seq.; *Vesala,* IIC 2023, 351 (357); *Bomhard*, BeckOK Urheberrecht, § 44b UrhG, para. 28 et seqq.

[106] On overcoming fuzzy technical obligations through a *technology judgement rule,* see *Denga*, in: Baumgärtel/Kiparski (eds.), DGRI Yearbook 2021/2022, 2023, 31-50.

[107] The model of co-regulation is strongly modelled on the DSA; see also *Peukert*, GRUR Int. 2024, 495 (508).

[108] See Art. 56 para. 9 AI Act.

[109] Regulation (EU) 2019/1020 of 20 June 2019 on market surveillance and compliance of products, OJ L 169/1; if there is no specific harmonising act regarding a product, the General Product Safety Regulation 2023/988 applies.

[110] In more detail *Novelli et al*, A Robust Governance for the AI Act: AI Office, AI Board, Scientific Panel, and National Authorities, 5 May 2024, available at https://ssrn.com/abstract=4817755.

ranging from market surveillance to market refusal.[111] However, the success of the AI Act's copyright compliance model will be determined crucially by the expertise and technical resources of the EU authorities.

Crucially, the authors themselves cannot claim a violation of the requirements of the AI Act with regard to copyright compliance. Authors cannot claim extraterritorial acts of use as an infringement of European copyright law. While private enforcement by users or members of the AI value chain within the meaning of Art. 25 is certainly conceivable, as the provider of an AI model is always likely to contractually promise compliance with the AI Act,[112] this method of legal enforcement is dependent on proof of damage.

D. Conclusion: A remote effect of EU copyright law as part of EU sovereignty policy

The responsibility of providers of generative AI under EU copyright law, for training activities taking place outside the EU, conflicts with the intellectual property law principles of territoriality and *lex loci protectionis*. Nevertheless, the AI Act's concept of responsibility does not mean a departure from these principles. The breach of an obligation under the AI Act does not constitute an infringement of copyright (although it is admittedly indirectly affected) as the direct issue at stake is objective product safety requirements for placing a product on the market.

At this point, the AI Act is in line with the EU's more recent sovereignty policy, which tends to actively defend the EU's values in the international economic arena.[113] Providers of generative AI must now fully comply with EU copyright standards, or refrain from commercialising their generative models in the EU. In particular, the obligation to comply with a reservation expressly declared by the rightholders against the use of their works for text and data mining is a key economic factor here. The EU wants to enforce respect for the creative achievements of creators in the EU. It is not clear whether the secondary effect this could have on creators around the world has been taken into account, but the possibility of such effect cannot be dismissed. This makes a significant contribution to the question of participation in the economic yield of AI models based on protected content.[114] Everything will now depend on whether the EU will remain an attractive sales market that providers of AI models will want to fight to stay in. However, should providers instead choose to withdraw from the European market because they cannot, or do not want to, meet the EU copyright standards, this would be a great opportunity for European AI companies, although numerous other factors would determine their commercial success. Overall, the regulation discussed here is a bold step and -- it may prove to be a smart move in regulating global competition and enforcing the EU copyright regime.

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[111] Cf. Art. 53 para. 3, 89, 91, 92, 93.

[112] No one will want to conclude a licence agreement with a provider of AI systems that behaves illegally; on the absorption of supervisory obligations by contract law, see *Denga*, ZfPW 4/2024 in detail.

[113] On this comprehensively *Bradford*, Digital Empires, 105 et seqq.

[114] With the proposal of an AI levy, for example, *Senftleben*, IIC 2023, 1535 et seqq.; also *Schack,* NJW 2023, 113 (114, 117).

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