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Editorial

by **Karin Sein**

Recommended citation: Karin Sein, Editorial, 16 (2025) JIPITEC 328 para 1.

1 The almost-over year 2025 marks a shift in the meaning of the EU digital law. Originally intended to regulate new digital markets, provide a safer online environment, as well as to enhance competition and innovation, it has now taken on a new dimension – a geopolitical one. The new US National Security Strategy views EU rules on digital markets and digital services, particularly those affecting US Big Tech, as a threat to US national interests. What originally started as a classical market and safety regulation has suddenly become related to international security policy.

2 Another shift is the growing awareness of risks associated with AI and social media. Australia has already restricted access to social media for teenagers, and several EU countries are discussing whether to follow the path. Estonia, on the other hand, has launched a project to integrate artificial intelligence tools and skills into its school curriculum – hence, the national approaches vary between a complete prohibition and mandatory engagement.

3 It is therefore timely that the new issue of JIPITEC deals with several aspects of EU digital law. Gerrit Hornung and Hendrik Link welcome the introduction of individual rights, specifically the right to lodge a complaint and the right to explanation, in the Artificial Intelligence Act. As the use of AI has a significant impact on fundamental rights, these rights are vital individual remedies, although in some aspects, such as the subsidiarity clause in Article 86(3) of the AI Act, they come with considerable legal uncertainty.

4 The Christmas issue continues with the Digital Services Act (DSA), as Sarah Eskens explores the application of the DSA's intermediary services concepts to various WhatsApp and Telegram functionalities, raising the question of whether they could be classified as online platform services and are therefore subject to the requirements of the DSA. She concludes that whereas WhatsApp group chats are mere conduit or caching services, WhatsApp channels qualify as online platforms, and in the case of Telegram, things are even more nuanced. She observes that even if online spaces on messaging apps do not qualify as online platform services, they do have a semi-public character and may lead to public harms, indicating a gap in the current DSA.

5 Theodoros Chiou and Leander Stähler continue to explore the copyright law implications of AI training for 3D reconstruction purposes. They show that whereas 3D reconstruction techniques may involve copyright-relevant reproductions of 2D content/inputs at the training stage, this is not necessarily the case at the output stage. Hence, the 3D reconstruction models resemble 'virtual 3D printers' rather than '3D collage machines'.

6 Barna Arnold Keserű discusses whether photorealistic human faces can be protected as trademarks under European Union law. He observes that the EUIPO case law from 2017 to 2024 tends to accept it. However, this shift does not come without challenges, be it the concept of genuine use or a potential conflict between trademark and personality rights.

7 Finally, Diogo Sasdelli and Thomas J. Lampotlshammer analyse the lawfulness requirements for storing customer data in the Digital Product Passport under the new Ecodesign for Sustainable Products Regulation. They note that the new Regulation

sets high standards for the proof of the consumer's explicit consent, but also presents major challenges with respect to the principle of ne bis in idem.

8 Writing this editorial in Tallinn, not far from the Eastern border of the EU and only a couple of days before the holidays, raises mixed feelings. Christmas is a time of gratitude. Perhaps it takes someone raised and educated in the Soviet Union to understand what real luxury it is to read, teach, and discuss EU law as part of our everyday job. As academics, we often take a critical stance on a certain piece of EU legislation or CJEU judgment – and rightly so. However, books like Stoltenberg's memoirs about his service as a NATO secretary-general should remind us that the opportunity to do so is something that we should not take for granted.

9 May JIPITEC's new issue add to this wonderful opportunity of discussing European digital law!

Happy holidays and a successful year 2026!

Karin Sein

Individual Rights in the AI Act
The Rights to Lodge a Complaint and to Explanation of the Decision-Making Process in Individual Cases

by **Gerrit Hornung and Hendrik Link** *

Abstract: While the Commission's draft AI Act virtually ignored the legal positions of individuals, the adopted text contains a much stronger focus on this aspect and introduces two new individual rights, namely the right to lodge a complaint (Article 85 AI Act) and the right to explanation (Article 86(1) AI Act). Given the relevance of many AI systems to fundamental rights, this is to be welcomed; however, its concrete implementation raises new questions both within the internal system of the AI Act and in relation to the GDPR.

Keywords: AI and Fundamental Rights, Transparency, Explainability, Relationship between AI Act and GDPR

Recommended citation: Gerrit Hornung and Hendrik Link, Individual Rights in the AI Act - The Rights to Lodge a Complaint and to Explanation of the Decision-Making Process in Individual Cases, 16 (2025) JIPITEC 330 para 1.

A. Background

1 The AI Act,[2] which was adopted by the European Parliament at first reading on 13 March 2024 and by the Council at third reading on 21 May 2024[3], is described by the European Commission as the world's first comprehensive regulation for the design and use of AI systems[4] and will significantly impact

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1 Revised version of a paper originally published in German in 'Datenschutz und Datensicherheit' 8/2024. The text was created in connection with two projects funded by the Federal Ministry of Education and Research: "Privacy, democracy and self-determination in the age of AI and globalisation" (PRIDS, FKZ 16KIS1378) and "Flexible and individual support of disciplinary and interdisciplinary competencies through socio-technical design of systems of hybrid intelligence" (Komp-HI, FKZ 16DHBKI073) and also funded by the German Research Foundation (DFG) (DFG-GRK 2050: Privacy and Trust for mobile users, project number 251805230).

2 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) [2024] OJ L2024/1689.

3 Procedure 2021/0106/COD; resolution PE-CONS 24/24 of 14 May 2024.

4 The accuracy of this assertion is contingent upon the precise definition of what constitutes a 'comprehensive legal framework', given that other jurisdictions had already enacted sector-specific regulations, such as China's Provisions on the Management of Algorithmic Recommendations in Internet Information Services (2022); the Provisions on the Administration of Deep Synthesis Internet Information Services (2022); or the Interim Measures for the Management of Generative Artificial Intelligence Services (2023). With the Canadian Artificial Intelligence and Data Act, another comprehensive legal framework is in progress: See also In-

the use of AI systems once the transitional periods[5] have expired. On the proposal of the Commission, it follows a risk-based approach[6] and differentiates – depending on the risk – between legal consequences that can go as far as a complete prohibition[7] (Article 5 AI Act).

2 Several points were highly controversial during the legislative process, especially the requirements for so-called "general-purpose AI model[s]" (Article 3 No. 63 AI Act). These do not lend themselves to specific risk assessments, so a compromise had to be reached in controversial discussions (see now in particular Articles 51-56 and Articles 88-94 AI Act).[8]

3 The issue of general-purpose AI models only became the focus of discussion during the legislative process, specifically following the launch of ChatGPT in November 2022, more than a year and a half after publication of the Commission's draft on 21 April 2021.[9] In contrast, two further limitations were already apparent at the time of that publication. Firstly, the draft did not adequately address the particular challenges of using AI systems for the democracy-relevant processes of social communication and political decision-making.[10] Secondly, the Commission paid little attention to the perspective of citizens in relation to fundamental rights infringements. In the impact assessment of its AI Act proposal, the Commission took the risks to safety and security of citizens into account, but did not consider new rights necessary in order to avoid and mitigate those risks.[11] Instead the requirements of the proposal, especially for high-risk AI, were intended to ensure risk mitigation through a "minimum degree of algorithmic transparency and accountability".[12] According to this logic, consumer protection, for example, was only mentioned in very general terms in the draft.[13] Consumers were only referred to as individuals in the financial statement, and even here only with the terse sentence that they "should benefit by reducing the risk of violations of their safety or fundamental rights".[14]

4 However, violations of fundamental rights must not only be curbed by the European legislator but should also lead to individual legal protection options

novation, Science and Economic Development Canada, 'Artificial Intelligence and Data Act (AIDA) Companion Document' <https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act-aida-companion-document#s4> accessed 10 October 2025.

5 The applicability of the respective Articles begins in a staggered system 6, 12 and 24 months after entry into force, see Article 113 AI Act; Article 111 AI Act applies to systems and models already placed on the market.

6 See Christian Geminn, 'Die Regulierung Künstlicher Intelligenz' [2021] ZD 354, 355ff; Gerald Spindler, 'Der Vorschlag der EU-Kommission für eine Verordnung zur Regulierung der Künstlichen Intelligenz (KI-VO-E)' [2021] CR 361, 362; Matthias Valta and Johann J. Vasel, 'Kommissionsvorschlag für eine Verordnung über Künstliche Intelligenz' [2021] ZRP 142, 142ff; Andreas Ebert and Indra Spiecker gen. Döhmann, 'Die EU als Trendsetter weltweiter KI-Regulierung: Der Kommissionsentwurf für eine KI-Verordnung der EU' [2021] NVwZ 1188, 1189ff; David Bomhard and Marieke Merkle, 'Regulation of Artificial Intelligence' [2021] EuCML 276, 279ff; Frauke Rostalski and Erik Weiss, 'Der KI-Verordnungsentwurf der Europäischen Kommission' [2021] ZfDR 329, 337ff. Generally, on data protection risk criteria for AI see also Martin Rost, 'Künstliche Intelligenz' [2018] DuD 558, 561ff; German Data Ethics Commission, *Opinion of the Data Ethics Commission* (2019) 173ff. <https://www.bfdi.bund.de/SharedDocs/Downloads/EN/Datenschutz/Data-Ethics-Commission_Opinion.pdf?__blob=publicationFile&v=1.> accessed 10 October 2025.

7 Article 5 AI Act provides for several prohibitions, but also contains various qualifications and exceptions. For example, the use of AI systems to infer emotions of a natural person in the areas of workplace and education institutions is prohibited in principle, except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons (Article 5(1)(f) AI Act).

8 On the problem, see eg Pegah Mahaman and Sabrina Küspert, 'Governing General Purpose AI: A Comprehensive Map of Unreliability, Misuse and Systemic Risks' (Stiftung Neue Verantwortung, July 2023) <https://www.interface-eu.org/storage/archive/files/snv_governing_general_purpose_ai_pdf.pdf> accessed 10 October 2025.

9 Commission, 'Proposal for a Regulation of the European Parliament and of the Council laying down harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative Acts' COM (2021) 206 final; for different analyses of the draft, see n 6.

10 See the brief mentions in Recitals 15 and 40 of the Commission draft. Although Annex III No 8 was entitled "Administration of justice and democratic processes", it only contained one entry for the judiciary. This was expanded in the trilogue, see No 8 lit b. On the challenges of AI for democracy, see the different chapters in Sebastian Unger and Antje von Ungern-Sternberg (eds), *Demokratie und künstliche Intelligenz* (Mohr Siebeck 2019) and Marc Rotenberg, 'Artificial Intelligence and Democratic Values: The Role of Data Protection' [2021] EDPL 496. See also the report of the German Data Ethics Commission (n 6) 159ff.

11 Commission, 'Impact Assessment Accompanying the Proposal for a Regulation of the European Parliament and of the Council laying down harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative Acts', SWD(2021) 84 final 13ff, 54.

12 Commission (n 11) 54.

13 COM (2021) 206 final, 4, 13, 15, Recital 28; on this point, see Gerrit Hornung, 'Trainingsdaten und die Rechte von betroffenen Personen' in BMUV and Frauke Rostalski (eds), *Künstliche Intelligenz: Wie gelingt eine vertrauenswürdige Verwendung in Deutschland und Europa?* (Mohr Siebeck 2022) 91, 118.

14 COM (2021) 206 final, 93.

under secondary legislation.[15] While existing legal frameworks, for instance the GDPR[16] or the Product Liability Directive,[17] offer some remedies for issues related to AI systems, particularly regarding training data handling, a more **comprehensive** regulation appears necessary, and it seems appropriate that an exhaustive regulation like the AI Act should also include individual rights. The trilogue followed this approach and included what now became Articles 85-87 AI Act. These articles collectively protect individual rights, enhance transparency and accountability, and set up mechanisms for reporting and addressing infringements within the regulatory framework governing AI systems.[18] At the same time, it was clarified in Recital 9 AI Act that rights and remedies from other sectors – explicitly mentioned are data protection, consumer protection, fundamental rights, employment, protection of workers and product safety – remain "unaffected and fully applicable".

B. Legislative Procedure

5 In its resolution on amendments to the legislative proposal of 14 June 2023,[19] the European Parliament called for three individual rights.[20] These were amended in the trilogue to varying degrees.

I. Parliamentary Position

6 According to Article 68a of the Parliament's position, every natural person or group of natural persons should have the right to lodge a complaint with a national supervisory authority if they consider that the "AI system relating to him or her infringes this Regulation", without prejudice to any other administrative or judicial remedy. According to Article 68e, the provisions of the Whistleblower Directive (EU) 2019/1937 should apply to the reporting of breaches of the Regulation.

7 Article 68b of the parliamentary position contained a right of any natural or legal person to an effective judicial remedy against a legally binding decision of a national supervisory authority concerning them. It also allowed for legal action in cases of failure to act with regard to the right of appeal under Article 68a.

8 In Article 68c of its proposal, Parliament introduced a right to explanation of individual decision-making. According to Article 68c(1), this right should require:

- A decision has been made by the deployer on the basis of the output from a high-risk AI system,
- The person is subject to the decision,
- The decision produces a legal effect or similarly significantly affects the person in health, safety, fundamental rights, socio-economic well-being or other rights deriving from the obligations set out in the AI Act.
- Where these elements are present, the affected persons shall have a right to request a "clear and meaningful explanation pursuant to Article 13(1)[21] on the role of the AI system in the decision-making procedure, the main parameters of the decision

15 The lack of individual rights was also criticised by Martin Ebers and others, 'Der Entwurf für eine EU-KI-Verordnung: Richtige Richtung mit Optimierungsbedarf' [2021] RDi 528, 537; Melanie Fink, 'The EU Artificial Intelligence Act and Access to Justice' (*EU Law Live*, 10 May 2021) <https://eulawlive.com/op-ed-the-eu-artificial-intelligence-act-and-access-to-justice-by-melanie-fink/> accessed 10 October 2025; Costanza Alferi, Francesca Caroccia and Paola Inverardi, 'AI Act and Individual Rights: A Juridical and Technical Perspective' [2022] 3221 CEUR-WS 4ff <https://ceur-ws.org/Vol-3221/IAIL_paper4.pdf> accessed 10 October 2025; Mona Winau, 'Gewährleistung effektiven Grundrechtsschutzes auf Grundlage des Kommissionsentwurfs für eine KI-Verordnung?' [2023] ZdiW 14, 19.; See also Gerrit Hornung, 'Individualrechte in der KI-Verordnung' [2022] DuD 561, 565.

16 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1, ; especially the remedies laid down in Articles 13–22 GDPR are particularly relevant in the context of AI Systems.

17 Directive (EU) 2024/2853 of the European Parliament and of the Council of 23 October 2024 on liability for defective products and repealing Council Directive 85/374/EEC [2024] OJ L 2024/2853; the revised Product Liability Directive explicitly applies to software (Article 4(1)), which includes AI systems, as clarified in Recital 13 of the Directive.

18 Junaid S Butt, 'Analytical Study of the World's First EU Artificial Intelligence (AI) Act, 2024' [2024] IJRPR 7343, 7356.

19 European Parliament, 'Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD))' P9_TA(2023)0236.

20 The awareness was raised by Tambiama Madiega, 'Artificial intelligence act' [2024] PE 698.792 EPRS, 9 <https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698792/EPRS_BRI(2021)698792_EN.pdf> accessed 10 October 2025, who referred to the paper by Ebers and others (n 15) 528.

21 This is also in the final text of Article 13 (1) AI Act. However, Parliament had proposed stronger transparency obligations in this provision.

taken and the related input data".

9 Article 68c(2) and (3) of the parliamentary position contained two exceptions. According to Article 68c(2), the right under Article 68a(1) should not apply if Union or national law contains exceptions or restrictions, provided they "respect the essence of the fundamental rights and freedoms and is a necessary and proportionate measure in a democratic society." Article 68c(3) stipulated that (1) should apply without prejudice to the data protection provisions in Articles 13, 14, 15 and 22 GDPR (information obligations, right of access and automated decision-making in individual cases).

II. Trilogue

10 The Parliament's proposals were significantly amended in the trilogue.[22]

11 Instead of Article 68a of the parliamentary draft, Article 85 AI Act essentially incorporates the provision that the Council had proposed as a supplement in its Article 63(7d).[23] Accordingly, there is no right of appeal for groups, but there is one for legal entities. In addition, the nature of the provision has changed: it is not necessary, as proposed by Parliament, that the AI system "relates" to the complainant.[24] Instead, a complaint to the market surveillance authority is generally possible if a person has "grounds to consider that there has been an infringement of the provisions of this Regulation".

12 Consequently, Article 85(2) AI Act (also as in the Council proposal) stipulates that complaints are taken into account for the purposes of conducting market surveillance activities in accordance with Regulation 2019/1020 and are handled in line with the dedicated procedures established by the market surveillance authorities. The obligation of the authority to inform the complainant of the progress and the outcome of the complaint, as provided for in Article 68a(2) of the parliamentary draft, has been omitted. In contrast, the reference to the Whistleblower Directive has been adopted (now Article 87 AI Act).

13 Instead of the judicial remedy against decisions by national authorities provided for in Article 68b of the parliamentary draft, a new paragraph was added elsewhere at the suggestion of the Council. The provision now adopted as Article 99(10) AI Act stipulates – albeit only for sanctions – that the exercise of supervisory powers must be subject to appropriate procedural safeguards in accordance with Union and national law, including effective judicial remedies and due process.

14 The right to explanation of individual decision-making was essentially adopted in the trilogue from Article 68c of the parliamentary position as Article 86 AI Act, albeit with the following amendments:

- The right to explanation does not apply to all high-risk AI systems, but only to high-risk AI systems listed in Annex III.
- The right is further excluded for systems listed in Annex III No. 2, i.e. critical infrastructures (safety components).[25]
- In the case of de facto effects, impairments of socio-economic well-being and/or other rights deriving from the obligations set down in the AI Act are not sufficient.
- The reference to Article 13(1) has been deleted.
- In terms of legal consequences, the obligation to provide a clear and meaningful explanation of the role of the AI system in the decision-making process remains. However, the explanation of the "main parameters" has now been replaced by an explanation of the "main elements" of the decision made; the obligation to explain the related input data has been deleted.[26]
- In the provision on exceptions and restrictions in other regulations (Article 86(2) AI Act), the

22 For a comparison of the different positions, see Daniel Feuerstack, Daniel Becker and Nora Hertz, 'Die Entwürfe des EU-Parlaments und der EU-Kommission für eine KI-Verordnung im Vergleich' [2023] ZfDR 421.

23 See the comparison at 'Proposal for a Regulation of the European Parliament and of the Council laying down harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative Acts 2021/0106(COD)' <https://www.patrick-breyer.de/wp-content/uploads/2024/01/AIAct_final_four-column21012024.pdf> accessed 10 October 2025.

24 Article 85 thus establishes a general reporting right without requiring personal affectedness and primarily serves market surveillance purposes, while Article 86 creates subjective individual rights of affected persons to explanations of individual decisions. With regard to this difference, see Sarah Hartmann, 'KI-VO Artikel 85' in Mario Martini and Christiane Wendehorst (eds), *KI-VO: Verordnung über künstliche Intelligenz* (CHBeck 2024) para 2.

25 Specifically, No 2 mentions AI systems that are intended to be used as safety components in the management and operation of critical digital infrastructure, road traffic, or in the supply of water, gas, heating or electricity.

26 Insofar as the input data is personal data within the meaning of Article 4 No 1 GDPR, this is at least partially compensated for by the right of access pursuant to Article 15 GDPR.

fundamental rights requirements have been deleted.

- The reference in Article 68c of the Parliament's position to the applicability of the GDPR has been omitted. However, the broader reference also proposed by Parliament was included in Recital 10 AI Act.

- Article 86(3) AI Act now contains a subsidiarity clause: the article only applies insofar as the right referred to in paragraph 1 is not otherwise provided for under Union law.

C. Evaluation and Open Questions

15 The adopted provisions differ significantly in both their practical relevance and the challenges of their interpretation. In both respects, the right to explanation of individual decision-making stands out.

I. Right to "lodge a complaint" (Article 85 AI Act)

16 Recital 170 AI Act justifies the decision against a specific legal remedy that would be directed against individual impairments caused by the use of an AI system with the already existing availability of effective legal remedies under Union and national law.

17 This is correct in so far as a violation of rights and freedoms through the use of AI systems will generally trigger legal claims, depending on the legal relationships of the parties involved (e.g. contractual and statutory civil law claims, state liability and other public law remedies).[27] Nevertheless, it remains unclear what the European legislator's assessment is based on. After all, even the multitude of legal remedies is no guarantee that the legal protection system it creates will cover all relevant cases – and even less guarantee that it will operationalise the new requirements of the AI Act in an adequate manner at an individual procedural level.

18 As the European legislator has refrained from opening up the provisions of the AI Act as a whole to individual complaints to the market surveillance authority it must be determined for each provision of the Regulation whether it conveys individual legal positions and whether these positions are enforceable through an official or judicial remedy. This applies, for example, to the data protection provisions in Article 10(5) and Article 59 AI Act, which allow the processing of personal data for the purposes of ensuring bias detection and correction as well as within AI regulatory sandboxes.[28] Since the AI Act contains requirements for products, it stands to reason that its provisions will have an impact on the subjective and objective requirements for sales items and other market expectations. However, whether this applies to all requirements of the Regulation still needs to be clarified.

19 If the respective requirement of the AI Act cannot be subjectively asserted in this way, the possibility of a complaint under Article 85 AI Act remains. The same applies if a natural or legal person reports an infringement that does not affect them.

20 However, the terminology of the provision is unfortunate for these cases: The term "complaint" was adopted from the parliamentary position, which, however, contained an individual reference ("AI system relating to him or her infringes this Regulation"). As a result of the change in the trilogue, the provision has the character of a reporting mechanism. This terminology – which is also used in Article 87 AI Act for the applicability of the Whistleblower Directive ("reporting of infringements") – should also have been used in Article 85 AI Act.

II. No Specific Legal Remedy against Market Surveillance Authorities Decisions

21 The question of legal protection against market surveillance authorities' action, which is now addressed in Article 99(10) AI Act, is significantly less complex. If such action results in a legally binding decision that is addressed to a natural or legal person, the applicable law of the Union and the Member States will practically always provide for suitable legal remedies; moreover, procedural safeguards at the level of fundamental rights level also apply. Both Article 68b of the parliamentary draft and the adopted Article 99(10) AI Act are

27 On liability for the use of AI systems, see eg Meik Thöne, *Autonome Systeme und deliktische Haftung* (Mohr Siebeck 2020); on state liability David Roth-Isigkeit, 'Staatshaftungsrechtliche Aspekte des Einsatzes automatisierter Entscheidungssysteme in der öffentlichen Verwaltung' [2020] AöR 321; Mario Martini, Hannah Ruschemeier and Jonathan Hain, 'Staatshaftung für automatisierte Verwaltungsentscheidungen – Künstliche Intelligenz als Herausforderung für das Recht der staatlichen Ersatzleistungen' [2021] VerwArch 1.

28 See (still on the basis of the Commission draft) Hornung, 'Trainingsdaten und die Rechte von betroffenen Personen' (n 13) 102ff; Regarding regulatory sandboxes in the AI Act, see Jan-Philipp Muttach and Hendrik Link, 'Verarbeitung personenbezogener Daten in KI-Reallaboren nach dem KI-VO-E' [2023] CR 725.

therefore likely to be declaratory.

III. Right to Explanation of Individual Decision-Making

1. Scope of Application

22 Article 86(1) AI Act grants "affected persons"[29] the right to explanation of individual decision-making. Unlike Article 85 AI Act, this is not qualified by "natural or legal persons", raising the question of whether only natural persons are entitled to it.[30] This could be supported by the fact that the impairment of health is only possible for them. On the other hand, neither the provision itself nor Recital 171 sentence 1 AI Act (both relating to "affected persons") exclude legal persons explicitly. Moreover, legal persons may not be affected in their health, but rather in their security and their fundamental rights. Finally, the telos of the transparency rules (in particular legal protection through administrative and judicial procedures, see section C. III. 3 below) is also applicable. It therefore stands to reason that the provision should also apply to legal persons.[31]

23 The right to explanation only applies if the output is generated by a high-risk AI system listed in Annex III. This narrower scope excludes those AI systems classified as high-risk under Article 6(1) AI Act when they constitute safety components. This important change in the scope of application remains unexplained. Similarly, the exclusion of the right to explanation for critical infrastructure safety components (Annex III No. 2) included in Article 86(1) AI Act has also not been justified by the legislator. Given the description and examples in Recital 55 AI Act, such AI systems will generally not produce any output for decisions within the meaning of Article 86(1) AI Act. However, if this is the case, it is difficult to explain why the right under this article should not apply.[32] At least with regard to the safety components of critical infrastructure, a plausible explanation is that the legislator considered the interest in confidentiality to be overriding.[33] Additionally, this change from the Parliament's approach raises the question of whether Article 86 AI Act merely refers to the scope of Annex III or to Article 6 AI Act more broadly, in particular taking into account the exception in Article 6(3) AI Act.[34] De lege lata, however, this must be accepted.

24 Overall, the restriction of the right to explanation to high-risk AI systems can also be criticised as such. As a specific impairment is required at the factual level (see section C. III. 2), it is difficult to justify from the perspective of those affected, why it should also depend on whether the system is (abstractly) classified as high-risk and therefore falls under Article 6 AI Act. Other AI systems may also lead to specific risks, which would justify the application of individual rights in those specific cases. The restriction to high-risk AI systems is, on the other hand, in line with the legislator's general regulatory strategy.[35]

2. Legal Requirements

25 The requirements for exercising the right to explanation are not fully harmonised between the article and its Recitals. However, the linguistic difference between a decision that is based upon the output (Recital 171 sentence 1 AI Act) and one that is "taken by the deployer on the basis" of the output (Article 86(1) AI Act) is unlikely to affect the interpretation.

26 By contrast, it is problematic that Recital 171 sentence 1 AI Act additionally requires the deployer's decision[36] to be "mainly" based upon the output of the high-risk AI system. Article 86 (1) AI Act does not contain this restriction. This conflict is to be decided according to general rules; in this respect,

29 Margot Kaminski and Gianclaudio Malgieri, 'The Right to Explanation in the AI Act' [2025] U of Colorado Law Legal Studies 1, 4 define "affected persons" as any natural person significantly impacted by a decision based on high-risk AI systems.

30 Andreas Häuselmann, 'Déjà vu? An Analysis of Explanations Concerning Decision-Making Under the GDPR and the AI Act' [2025] AIRe 37, concludes that, based on the wording of Article 86 AI Act, it is only applicable to natural persons.

31 For a contrary opinion, see Sarah Hartmann, 'KI-VO Artikel 86' in Mario Martini and Christiane Wendehorst (eds), *KI-VO: Verordnung über künstliche Intelligenz* (CH Beck 2024) para 12.

32 Uchenna Nnawuchi and Carlisle George 'A Grand Entrance Without a Blueprint' [2024] AIRe 402, 411 also criticize the exception of Annex III in regard of Article 86 AI Act.

33 Christian Djeffal, 'KI-VO Artikel 86' in Jens Schefzig and Robert Kilian (eds), *BeckOK KI-Recht* (CH Beck 2025) para 13.

34 Djeffal (n 33) para 14 argues that, although the wording of Article 86 AI Act does not explicitly include the exceptions in Article 6(3) AI Act, these are constitutive for the definition of high-risk AI systems and must therefore be taken into account when determining its scope.

35 Suggesting self-regulation for non-high-risk AI via codes of conduct, see Fabian Lütz, 'The AI Act, gender equality and non-discrimination: what role for the AI office?' [2024] ERA Forum 79ff.

36 The term "decision" corresponds to the meaning in Article 22 GDPR and refers to any action that at least may similarly affect the rights of the affected person as a legal act would, see Djeffal (n 33) para 16ff.

Article 86 (1) AI Act prevails over the non-normative Recital.[37] It will suffice if the output of the high-risk AI system were relevant for the decision, i.e. played a not merely insignificant role.

27 It is important to note that Article 86 AI Act does not require the high-risk AI system to make the decision itself.[38] This marks a key difference from Articles 13(2)(f), 14(2)(g) and 15(1)(h) GDPR, which are linked to Article 22 GDPR[39] and therefore require a decision based solely on automated processing.[40] In contrast, the right to explanation pursuant to Article 86(1) AI Act also applies if the output data of the high-risk AI system forms the basis for a (fully) human decision. Compared to Articles 13(2)(f),14 (2)(g) and 15(1)(h) GDPR, this represents a considerable extension of the transparency obligations, which is of particular importance in view of the significance of "hybrid intelligence" systems,[41] in which humans and AI systems interact in a complex manner.

28 Furthermore, Article 86(1) AI Act contains general clauses and undefined legal terms regarding both the requirements and the legal consequences.[42] This should be manageable for the requirements because the impairment of health, safety and fundamental rights can be linked to relevant case law and supervisory authority practice and the regulation emphasises the perspective of the affected persons with the wording "they consider to have an adverse impact on", thus not setting high requirements.

3. Legal Consequences: Unclear Obligations of Deployers

29 In contrast, the obligations of the deployer appear largely unclear. What exactly constitutes "clear and meaningful explanations", what information is required to describe the "role of the AI system in the decision-making procedure" and what parameters must characterise the "main elements" of the decision remains vague.[43] The right to explanation in Article 86(1) AI Act does not prescribe specific technologies, such as those promoted in the discipline of explainable AI (XAI).[44] This aligns with other provisions of the AI Act, which generally do not impose particular technologies. On the other

37 Recitals are not legally binding and cannot be used to deviate from the wording of a provision of the legal act, see Case C-162/97 *Criminal proceedings v Nilsson and Others* [1998] ECR I-7477, para 54; Case C-136/04 *Deutsches Milch-Kontor GmbH v Hauptzollamt Hamburg-Jonas* [2005] ECR I-10095, para 32; Case C-345/13 *Karen Millen Fashions Ltd v Dunnes Stores and Dunnes Stores (Limerick) Ltd* [2014] EuZW 703, para 31.

38 Häuselmann (n 30) 41; Hartmann, 'KI-VO Artikel 86' (n 24) para 10; Djeffal (n 33) para 21.

39 See Claudio Sarra, 'Artificial Intelligence in Decision-making: A Test of Consistency between the "EU AI Act" and the "General Data Protection Regulation"' [2024] Athens Journal of Law 45, 52–55, arguing that the AI Act's mandatory human oversight requirements under Article 14 may paradoxically render Article 22 GDPR inapplicable, thereby eliminating its comprehensive individual rights (including contestation and human intervention) in favour of the more limited transparency-focused approach of Article 86 AI Act.

40 Although the CJEU interprets the scope of application of Article 22 GDPR broadly (see Case C-634/21 *SCHUFA Holding (Scoring)* [2024] DuD 55), even in this interpretation the scope of application remains significantly narrower than that of Article 86 AI Act; Although there are various constellations of AI systems falling under the scope of Article 22 GDPR due to the CJEU judgement, see Tristan Radtke, 'Das Recht auf Erklärung unter der DSGVO und der KI-VO' in Max Dregelies, Hannes Henke and Lea Katharina Kumkar (eds), *Artificial Intelligence* (Nomos 2025) 54. Radtke summarises that the scope of Article 86(1) AI Act and Article 22 GDPR are equal in this regard.

41 For this term and the technical design perspective, see Dominik Dellermann and others, 'Hybrid intelligence' [2018] Business & Information Systems Engineering 637.

42 On this issue, see Marieke Merkle, 'Transparenz nach der KI-Verordnung – von der Blackbox zum Open-Book?' [2024] RDi 414, 419.

43 See eg (still based on the parliamentary position) Feuerstack, Becker and Hertz (n 22) 421, 430ff; Hartmann, 'KI-VO Artikel 86' (n 24) para 15; According to Djeffal (n 33) para 30, this means "both abstract elements of the decision-making process and the actual decision taken". On the definition of "main elements", also see Kaminski and Malgieri (n 29) 1, 18ff.

44 See from various perspectives Kieron O'Hara, 'Explainable AI and the philosophy and practice of explanation' [2020] CLSR 39, 105474 <https://doi.org/10.1016/j.clsr.2020.105474> accessed 10 October 2025; Katharina Rohlfing and others, 'Explanation as a Social Practice: Toward a Conceptual Framework for the Social Design of AI Systems' [2021] IEEE Transactions on Cognitive and Developmental Systems 717-728; on implementation options, eg Bernhard Waltl and Roland Vogl, 'Increasing Transparency in Algorithmic- Decision-Making with Explainable AI' [2018] DuD 613; Lisa Käde and Stephanie v Maltzan, 'Die Erklärbarkeit von Künstlicher Intelligenz (KI)' [2020] CR 66, 69ff; Sven Körner, 'Nachvollziehbarkeit von KI-basierten Entscheidungen' in Markus Kaulartz and Tom Braegelmann (eds), *Rechtshandbuch Artificial Intelligence und Machine Learning* (CH Beck 2020) ch 2.4; Philipp Hacker and others, 'Explainable AI under Contract and Tort Law: Legal Incentives and Technical Challenges' [2020] Artificial Intelligence and Law 415; Adrien Bibal and others, 'Legal requirements on explainability in machine learning' [2021] 29 AI and Law 149. For an overview of technical measures to enhance AI explainability and the general relevance of transparency in AI with respect to the AI Act, see Cecilia Panigutti and others, 'The role of explainable AI in the context of the AI Act' in *FAccT '23: Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency* (Association for Computing Machinery 2023) 1139ff.

hand, Article 86(1) AI Act will likely not encompass a comprehensive elucidation of the AI system's inner workings[45] without further specification by the legislator.

30 Article 86(1) AI Act shares these uncertainties with Articles 13(2)(f), 14(2)(g) and 15(1)(h) GDPR, which require "meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject" for decisions under Article 22 GDPR. There is a lack of both relevant case law and regulatory guidance from the supervisory authorities regarding the scope of the information and disclosure obligations. Scientific literature often rightly emphasises that the GDPR increased the transparency obligations compared to the legal situation under the former Data Protection Directive[46] in this regard.[47] However, no consensus has yet emerged as to what exactly the "logic involved" entails.[48] The same holds true as regards the possibility of restricting the GDPR rights to protect trade secrets, as Recital 63 GDPR provides. Interestingly, neither the articles nor the recitals of the AI Act mention the protection of trade secrets in this respect. However, it remains unclear whether this will lead to lower protection under the AI Act.

31 An important element of the teleological interpretation of Article 86(1) AI Act must be the general function of transparency about decision-making processes that it has for the addressees of the decision.[49] If they wish to challenge such a decision - or initially decide whether they wish to take legal action - they must at least be able to assess the key steps and factors influencing the decision-making process.[50] The CJEU has identified this aspect as a fundamental problem of AI with regard to the right to an effective remedy and to a fair trial under Article 47 CFR.[51] It is therefore rightly taken up in Recital 171 sentence 2 AI Act, which explains that the explanation required under Article 86(1) AI Act should "provide a basis on which the affected persons are able to exercise their rights".[52]

32 However, even taking this maxim of interpretation into account, the specific scope of duties of the norm remains difficult to determine. What exactly is required so that the explanation is able to form the "basis" of subsequent legal remedies can only be assessed in relation to the respective high-risk AI system, its functionality and the significance of the decision made on the basis of the system's output for the individual. The more significant the legal implications or the more serious the expected impairment of health, safety and fundamental rights, the higher the requirements for clear and meaningful explanation. In order for the deployers to be able to provide the relevant information, they are dependent on providers equipping their high-risk AI systems with appropriate self-explanatory mechanisms (XAI).[53]

33 An early preliminary ruling request concerning the AI Act seeks an interpretation of Article 86 AI Act.[54]

45 Philipp Hacker, 'Comments on the Final Trilogue Version of the AI Act' (SSRN, 13 April 2024) 11ff <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4757603> accessed 10 October 2025.

46 The German Federal Court of Justice (Bundesgerichtshof) has taken a restrictive approach on a national level, as evidenced by its decision in BGHZ 200, 38.

47 See eg Alexander Dix, 'GDPR Article 13' in Indra Spiecker gen Döhmann and others (eds), *General Data Protection Regulation* (Nomos 2023) para 10; Radim Polčák, 'Article 12 Transparent information, communication and modalities for the exercise of the rights of the data subject' in Christopher Kuner and others (eds), *The EU General Data Protection Regulation (GDPR): A Commentary* (Oxford University Press 2020) ch 3, 406.

48 In favour of a subjective "right to explanation" under the GDPR, see Radtke (n 40) 60ff; also Paul Vogel, *Künstliche Intelligenz und Datenschutz* (Nomos 2022) 172ff; proposal for a comprehensive "reviewability" in Jennifer Cobbe and Jatinder Singh, 'Reviewable Automated Decision-Making' [2020] CLSR 39, 105475 <https://doi.org/10.1016/j.clsr.2020.105475> accessed 10 October 2025; See also the considerations in Christoph Busch, 'Algorithmic Accountability' (ABIDA, 2018) 56ff <http://www.abida.de/sites/default/files/ABIDA%20Gutachten%20Algorithmic%20Accountability.pdf> accessed 10 October 2025; Mario Martini, *Blackbox Algorithmus* (Springer 2019) 176ff (proposals de lege ferenda ibid 340ff); Andreas Sesing, 'Grenzen systemischer Transparenz bei automatisierter Datenverarbeitung' [2021] MMR 288ff.

49 On the transparency problems of AI, see eg Andreas Sudmann, 'On the Media-political Dimension of Artificial Intelligence' [2018] Digital Culture & Society 181; Thomas Wischmeyer, 'Regulierung intelligenter Systeme' [2018] AöR 1, 42ff; Thomas Wischmeyer, 'Artificial Intelligence and Transparency: Opening the Black Box' in Thomas Wischmeyer and Timo Rademacher (eds), *Regulating Artificial Intelligence* (Springer International Publishing 2019) 75ff; Gianclaudio Malgieri, 'Automated decision-making in the EU Member States: The right to explanation and other "suitable safeguards" in the national legislations' [2019] CLSR 35, 105327 <https://doi.org/10.1016/j.clsr.2019.05.002> accessed 10 October 2025; Käde and v Maltzan (n 44) 66ff; Martini (n 48) 28ff; Annette Guckelberger, *Öffentliche Verwaltung im Zeitalter der Digitalisierung* (Nomos 2019) 520ff.

50 Very similar Häuselmann (n 30) 43, who links Article 86 AI Act to Article 13(3)(b) AI Act; Kaminski and Malgieri (n 29) 11ff deduce from the "clear and meaningful" requirement that there must be no oversimplification.

51 Case C-817/19 *Ligue des droits humains v Conseil des ministres* ECLI:EU:C:2022:491, para 194.

52 Similar Kaminski and Malgieri (n 29) 1, 15.

53 See n 44.

54 Case C-806/24 *Yettel Bulgaria EAD v FB* (request for a pre-

This may provide some clarity as to the precise scope of the provider's obligations pursuant to Article 86(1) AI Act.[55] However, it is doubtful whether the CJEU will interpret Article 86(1) AI Act, since the provision is not yet in force.[56] Moreover, it is questionable whether the system at issue qualifies as an AI system at all,[57] let alone a high-risk AI system.

4. Relationship to other Legal Norms

34 The provisions in Article 86(2) and (3) AI Act differ considerably in their legal effect: some parts are declaratory, others too far-reaching, and yet others create considerable legal uncertainty.

35 Article 86(2) AI Act establishes the precedence of exceptions and limitations to the obligation under Article 86(1) AI Act that are contained in other legal acts. This is declaratory for Union law regulations, as such precedence would already follow from the principle of speciality. The Union legislator is only bound by primary law, in particular fundamental rights, in the case of future exemptions.

36 The limits under primary law also apply to the Member States, as they are implementing Union law within the meaning of Article 51(1) CFR when adopting derogations; Article 68c(2) of the Parliament`s position was declaratory in this respect. However, it is still remarkable that the legislator has dispensed with any requirements for Member State derogations from Article 86(1) AI Act. The lack of such requirements is difficult to justify from the point of view of both the protection of fundamental rights and the rationale of the internal market. The Regulation only imposes a general obligation on the Member States to comply with Union law (Article 86(2) AI Act), but Union law does not contain any secondary law requirements for exemptions from Article 86(1) AI Act, neither in the Regulation nor in other secondary law. The only limits are the aforementioned transparency obligations of the GDPR,[58] which cannot be overridden by way of an exception to Article 86(1) AI Act.[59] It is to be hoped that the Member States will not make extensive use of this blanket authorisation.

37 Article 86(3) AI Act stipulates that the provision only applies insofar as the right pursuant to Article 86(1) AI Act is not otherwise provided for under Union law. The function of para 3 is unclear. According to the wording, it appears to cover cases in which other rights have both the same legal requirements and the same legal consequences as Article 86(1) AI Act. However, it then remains unclear which problem Article 86(3) AI Act is intended to address, because the normative duplication does not lead to any difficulties in the relationship between the affected claimant and the defendant. At most, effects may arise at the enforcement level, because the inapplicability of Article 86 AI Act means that, for example, Member State provisions on enforcement measures under Article 99(1) AI Act also do not apply.

38 In any case, given the unclear interpretation of both Article 86(1) AI Act and Articles 13(2)(f), 14(2)(g) and 15(1)(h) GDPR, it is also unclear whether the subsidiarity clause in Article 86(3) AI Act is intended to cover the latter. The applicability regarding this group of data protection provisions could be supported by the fact that both types of claims have a very similar objective, as they are aimed at the transparency of decision-making for the data subject or other individuals. On the other hand, there are considerable linguistic differences which, until clarified by the CJEU, will remain unclear as to whether they also affect the content. In any case, the provisions of the GDPR can only partially supersede Article 86(1) AI Act, as the latter does not require a decision based solely on automated processing (see above).[60] In relation to Articles 13(2)(f), 14(2)(g) and 15(1)(h) GDPR, a scope of application of Article 86(1) AI Act will therefore in any case remain.

liminary ruling lodged 2024, pending).

55 Case C-806/24 *Yettel Bulgaria EAD v FB* para 1 (request for a preliminary ruling lodged 2024, pending).

56 See n 5.

57 The case concerns an algorithm which calculates the internet-roaming within a cellphone contract. See Niklas Kruse, 'Bulgarien: Vorabentscheidungsersuchen des Bezirksgerichts Sofia – Recht auf Erläuterung nach Art. 86 Abs. 1 KI-VO' [2025] ZD-Aktuell 01375.

58 Noting that both legal acts (AI Act and GDPR) stand as equal and parallel instruments but with different protective orientations, see Axel Halfmeier and Nils Lilienthal, 'Verbandsklagen gegen die rechtswidrige Verwendung Künstlicher Intelligenz' [2025] VuR 123, 123; Nnawuchi and George (n 32) 407 state, the AI Act "was not proposed or framed to enable individuals to seek redress for violations", whereas other scholars have argued the AI Act was intended to top up the GDPR.

59 Exceptions from Articles 13(2)(f), 14(2)(g) and 15(1)(h) GDPR in national laws would need to meet the requirements in Article 23 GDPR.

60 A different distinction is made by Radtke (n 40) 67ff, who sees the core difference in the explanation of the "role of the AI system", which needs to be provided under Article 86(1) AI Act; for a different opinion see Nnawuchi and George (n 32) 407 who argue the GDPR does not contain a "right to explanation" and therefore the AI Act addresses this need for algorithmic transparency in AI systems.

IV. Practical Impact of the Individual Rights

39 The individual rights in Articles 85, 86 AI Act are of extraordinary relevance as a preparation for remedies against unlawful AI systems. They constitute a milestone in the emerging corpus of adjudication on AI and function as procedural rights, structuring how individuals can contest or understand AI-supported decision-making.

1. Article 85 AI Act as a Procedural Safeguard

40 Enforcement of digital laws is likely to suffer from structural deficits. Within the "A Europe fit for the digital age" strategy, the EU has adopted several major legislative frameworks, including the AI Act.[61] Monitoring their compliance poses challenges for national authorities both in quantitative and qualitative terms: quantitatively, because multiple legislative acts must be enforced simultaneously; qualitatively, because authorities require highly specialised expertise to supervise complex digital products such as AI systems. Market surveillance authorities can enforce the AI Act more effectively when they rely on consumer complaints as concrete indications of infringements, rather than monitoring without concrete leads. The practical benefit of Article 85 AI Act depends however largely on the complaint-handling capacity of national market surveillance authorities.[62]

41 Yet the first barrier is consumers' knowledge: to have "grounds to consider that there has been an infringement of this Regulation", individuals must be aware of its provisions. Given that these are often described as vague and unclear in the literature,[63] many individuals will require professional legal advice to understand the meaning of the respective requirements. At the same time, similar to Article 77 GDPR, Article 85 AI Act provides a procedural advantage: consumers may lodge complaints on the basis of suspected infringements without costly legal assistance, thereby lowering access barriers.

2. Article 86(1) AI Act as the First Procedural Step to Legal Remedy

42 For affected persons it is particularly challenging to contest decisions made by AI, due to the asymmetry of information between providers and those subject to the decision. Affected persons often cannot trace how such systems function or how specific decisions are reached. As a result, identifying errors or non-compliance with the AI Act is extremely difficult. Explanations of AI-based decisions are therefore crucial to enable affected persons to pursue subsequent legal remedies. The legislator recognized this issue and seeks to address it through the proposed AI Liability Directive and the revision of the Product Liability Directive. In essence, both frameworks rely on disclosure-of-evidence mechanisms.[64] It would be unreasonable, however, to expect affected persons to initiate court proceedings merely to obtain the evidence necessary for their claims. Without further safeguards, they would essentially be gambling on whether the AI system complied with the law. Article 86 AI Act addresses this imbalance by granting a right to explanation, which provides both a first procedural safeguard and a remedial function once a decision based on a high-risk AI system has been made.

43 This aligns with Recital 171 sentence 2 AI Act, which clarifies – as mentioned above – that the explanation under Article 86(1) AI Act should provide a basis on which affected persons are able to exercise their rights. The purpose of strengthening individual rights is to support affected persons in challenging AI-based decisions, not to establish a mandatory precondition for bringing an action before a court.[65]

61 Commission, 'A Europe fit for the digital age' <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age_en> accessed 10 October 2025.

62 Data Protection Authorities find themselves underfunded and understaffed, so they need to prioritize the extremely large and growing number of individual complaints being submitted over other regulatory tasks, see FRA, 'GDPR in practice – Experiences of data protection authorities' <https://fra.europa.eu/en/publication/2024/gdpr-experiences-data-protection-authorities?> accessed 10 October 2025.

63 Michael Veale und Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' [2021] CRi 97, 100; On the vague definition of AI systems see European Law Institution, 'Commission Guidelines on the Application of the Definition of an AI System and the Prohibited AI Practices Established in the AI Act' 7 <https://www.europeanlawinstitute.eu/fileadmin/user_upload/p_eli/Publications/ELI_Response_on_the_definition_of_an_AI_System.pdf> accessed 10 October 2025; In regard of general-purpose AI see Oskar J Gstrein, Noman Haleem and Andrej Zwitter, 'General-purpose AI regulation and the European Union AI Act' [2024] Internet Policy Review 13(3) 1, 3.

64 Philipp Hacker, 'The European AI liability directives – Critique of a half-hearted approach and lessons for the future' [2023] CLSR 51, 105871 <https://doi.org/10.1016/j.clsr.2023.105871> accessed 10 October 2025.

65 A mandatory precondition would only be permissible if it

The sooner the open questions explained in section C. III. are clarified, the stronger the impact of Article 86(1) AI Act as a tool for affected persons to exercise their rights could be.

D. Conclusion

44 The outcome of the trilogue is to be welcomed, as it gives significantly greater consideration to the addressees of AI-based legal decisions and to those actually affected by AI systems. The provisions embody a hybrid nature between preventive procedural safeguards and remedial guarantees, a duality that is characteristic of rights in the digital due process discourse.[66]

45 Although Article 85 AI Act is poorly formulated with the terminology of "complaint", the provision nevertheless includes sensible elements of AI governance: it enables the reporting of breaches and obliges the market surveillance authority to take such reports into account. The same applies to the application of the Whistleblower Directive for corresponding reports (Article 87 AI Act).

46 By contrast, Article 86 AI Act raises a large number of new legal questions. The legislator can hardly be blamed for this: in view of the enormous dynamics of AI development, specific transparency rules can only be established with regard to individual technologies (see e.g. Article 50 AI Act), but not expressed in the form of overarching rules applicable to all AI systems. In this respect, regulation by means of general clauses cannot be avoided at the statutory level. However, it is all the more important to provide practical guidance, for example in the form of codes of practice from the AI Office (Article 56 AI Act), recommendations from the AI Board (Article 66(e)(l) AI Act) or guidelines from the Commission (Article 96 AI Act) and to update such instruments in line with technical developments. Interpretations of Article 86 AI Act by the CJEU will also be awaited.[67]

47 This is particularly the case considering the broad scope of application of Article 86 AI Act, which also extends to human decisions based on the output of a high-risk AI system. If Article 86 AI Act can be brought to life in this way the transparency provision could become a key tool for effectively addressing the legal disputes concerning the conformity of AI systems and the liability issues that are likely to emerge in the future.

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does not amount to "a disproportionate and intolerable interference of fundamental rights which infringes upon the very substance of the rights guaranteed", see CJEU, Joined Cases C-317/08, C-318/08, C-319/08 and C-320/08, *Alassini* [2010] para 63.

66 Regarding the expression "digital due process", see Frederick Mostert, 'Digital due process: a need for online justice' [2020] JIPLP 15(5) 378 <https://doi.org/10.1093/jiplp/jpaa024> accessed 10 October 2025.

67 The questions referred to the Court in the first case on the AI Act (C-806/24 *Yettel Bulgaria EAD v FB*) could provide guidance, but the admissibility is doubtful, cf section C. III. 3.

Public or Private Communication? Categorising WhatsApp's and Telegram's Group Chat and Channel Functionalities under the DSA

by **Sarah Eskens** *

Abstract: Many messaging apps provide functionalities for chat groups and channels. These functionalities are used to share illegal and harmful content. To determine how the DSA's intermediary liability regimes and due diligence obligations apply to group chat and channels, it is necessary to categorise them in terms of the DSA's intermediary services types. This paper analyses WhatsApp and Telegram as case studies and asks two questions: First, are WhatsApp's and Telegram's group chat and channel functionalities mere conduit, caching, or hosting services? Second, are WhatsApp and Telegram's functionalities that qualify as hosting services also online platform services?

The paper finds that WhatsApp group chats are mere conduit or sometimes caching services but never hosting services. Therefore, WhatsApp group chats cannot be online platform services. To the contrary, WhatsApp channels are hosting services and also qualify as online platform services. Telegram's analysis concerns four parts of the app: private and public group chats and private and public channels. All these functionalities on Telegram are hosting services. Furthermore, public group chats and channels on Telegram also qualify as online platform services. However, private chat groups and channels on Telegram are not online platform services.

The paper also reflects on the relevance of three specific features that give otherwise private functionalities of messaging apps a semi-public character. The paper concludes that these three specific features do not turn otherwise private chat groups or channels into online platforms, despite giving them a semi-public character. Consequently, the paper reflects on the DSA's gap regarding online spaces on messaging apps that do not qualify as online platform services, but have a semi-public character and, while being formally private, might lead to public harms. Further research should reflect on possible solutions to the DSA's gap regarding private group chats and channels on messaging apps with a semi-public character. The conclusion emphasises that any solution should ensure that truly private messaging functionalities will not qualify as online platform services, and are not subjected to content moderation or other third-party interventions, because of the democratic importance of confidentiality of communications.

Keywords: Messaging Apps; Online Platforms; DSA; Private Communication; Group Chats; Illegal Content

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A. Introduction

1 Many messaging apps provide functionalities for sharing messages and chatting in large groups.[1] For instance, you can create groups of up to 1024 members on WhatsApp and groups of up to 200.000 members on Telegram. Some messaging apps also offer broadcasting-like functionalities, often through so-called "channels".[2] With a channel, someone can send messages to a group of people, who cannot chat back. These channels can usually be followed by an unlimited number of people.

2 Most messages sent in group chats and channels contain content such as funny cat videos, family updates, and news. But these functionalities are also used to share illegal and harmful content at a large scale, including child sexual abuse material, ads for drugs and weapons, or disinformation.[3] In the EU, the availability of illegal and harmful content in group chats or channels on messaging apps might trigger the application of the DSA. The DSA aims to ensure a safe online environment by regulating the liability of intermediary services and imposing due diligence obligations upon them.[4]

3 The DSA's system is based on a distinction between different types of intermediary services. First, the DSA distinguishes between mere conduit, caching, and hosting services.[5] Each of these three services falls under a different intermediary liability regime.[6] The DSA also distinguishes online platforms as a subcategory of hosting services and very large online platforms as a further subcategory.[7] The DSA's due diligence obligations vary for intermediary services in general, hosting services, online platforms and very large online platforms. Therefore, to determine how the DSA's intermediary liability regimes and due diligence obligations apply to messaging apps, specifically their group chat and channel functionalities, it is necessary to categorise them in terms of the DSA's intermediary services types.

4 The first step is deciding whether a messaging app provides mere conduit, caching, or hosting services. These services are distinguished based on the "technical functionalities" underlying their provision.[8] Therefore, applying these definitions to messaging apps might seem straightforward because it only requires investigating their technical functionalities. However, in practice, categorising messaging apps as either mere conduit, caching, or hosting services turns out to be complicated. Many messaging apps combine different technical functionalities. For instance, WhatsApp stores undelivered messages but not those directly delivered, and it also stores media (e.g. pictures) in messages but not messages consisting only of text.[9]

5 For messaging apps providing hosting services, a second step is determining whether these hosting services also qualify as online platform services. The DSA defines an online platform – in brief – as a hosting service that stores and disseminates information to the public at a user's request.[10] The definition of "online platform" implies a difference between private and public communication. This is also reflected in the DSA's preamble, which juxtaposes interpersonal communication services, a form of private communication, with online platforms, which afford public communication.[11] However, messaging apps' group chat and channel functionalities come in many varieties that are often not easily identifiable as purely private or public communication.[12] For instance, chat groups

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1 Sophie Haigney, 'How Group Chats Rule the World' *The New York Times* (16 January 2024) <https://www.nytimes.com/2024/01/16/magazine/group-chats.html> accessed 2 July 2025.

2 WhatsApp, 'Introducing Whatsapp Channels. A Private Way to Follow What Matters' (8 June 2023) <https://blog.whatsapp.com/introducing-whatsapp-channels-a-private-way-to-follow-what-matters> accessed 2 July 2025; Telegram, 'Telegram Channels' (29 January 2018) <https://telegram.org/tour/channels>; Meta, 'Introducing Broadcast Channels on Facebook and Messenger' (*Meta Newsroom*, 18 October 2023) <https://about.fb.com/news/2023/10/broadcast-channels-on-facebook-and-messenger/> accessed 2 July 2025.

3 Paul Mozur and others, 'How Telegram Became a Playground for Criminals, Extremists and Terrorists' *The New York Times* (7 September 2024) <https://www.nytimes.com/2024/09/07/technology/telegram-crime-terrorism.html> accessed 2 July 2025; Katie McQue, 'How Facebook Messenger and Meta Pay Are Used to Buy Child Sexual Abuse Material' *The Guardian* (22 March 2024) <https://www.theguardian.com/global-development/2024/mar/14/facebook-messenger-meta-pay-child-sexual-abuse-exploitation> accessed 2 July 2025; Bobby Allyn, 'Group-Chat App Discord Says It Banned More than 2,000 Extremist Communities' *NPR* (5 April 2021) <https://www.npr.org/2021/04/05/983855753/group-chat-app-discord-says-it-banned-more-than-2-000-extremist-communities> accessed 2 July 2025.

4 Martin Husovec, *Principles of the Digital Services Act* (Oxford University Press 2024); Folkert Wilman, Saulius Lukas Kalėda and Paul-John Loewenthal, *The EU Digital Services Act* (Oxford University Press 2024).

5 Art 3(g) DSA.

6 Arts 4 – 6 DSA.

7 Arts 3(i) and 33 DSA.

8 Rec 29 DSA.

9 For more details, see section C.I.

10 Art 3(i) DSA.

11 Rec 14 DSA.

12 Schwieter makes the same point about online spaces in

on messaging apps usually have invite links. And on several apps, the default is that when someone finds such a link, they are automatically admitted to the group. When these invite links with automatic admission are publicly available, an otherwise private chat group gets a semi-public character. Furthermore, chat groups these days can have large numbers of members and enable communities that extend far beyond people's private spheres, while the settings of the group might be private in terms of access and findability. Such features complicate the categorisation of messaging apps, specifically their group chat and channel functionalities, under the DSA.

6 To understand how the DSA's definitions of different intermediary services, including online platforms, must be applied to messaging apps and what issues arise while doing so, this paper analyses two messaging apps: WhatsApp and Telegram. WhatsApp has been chosen as a case study because it is the most popular messaging app worldwide.[13] While there is no public data on the most popular messaging app in the EU, this paper assumes that WhatsApp is among the most popular messaging apps in the EU. Telegram has been chosen because it is also a very popular messenger app globally and, most likely, in the EU,[14] and because it has received particular attention from lawmakers and authorities for the extent to which it is used to spread illegal and harmful content.[15] Therefore, it is societally highly relevant to understand better how Telegram should be categorised under the DSA.[16] Finally, WhatsApp and Telegram both offer group chat and channel functionalities with relatively similar user interfaces, while these apps also configure these functionalities in significantly different ways. These similarities and differences make WhatsApp and Telegram two useful case studies to analyse jointly.

7 Against this background, this paper asks two research questions: First, are WhatsApp's and Telegram's group chat and channel functionalities mere conduit, caching, or hosting services within the meaning of the DSA? Second, are WhatsApp and Telegram's functionalities that qualify as hosting services also online platform services within the meaning of the DSA?

8 The analysis of the DSA's intermediary services concepts and their application to WhatsApp and Telegram can help stakeholders, including victims of illegal content, police authorities, Digital Services Coordinators, and judges, to apply these definitions to the group chat and channel functionalities of the more than 30 messaging apps available on the market. This paper also adds to the academic literature on applying the DSA to parties other than typical online platforms such as Facebook, Instagram, TikTok, or Amazon.[17] Other work has already touched upon the question of how messaging apps should be categorised under the DSA,[18] but this question has not yet been subjected

general, not just messaging apps, see Christian Schwieter, 'Online Safety Regulation & Private Online Communications: The State of Play and Ways Ahead for Addressing Terrorism, Extremism, Hate, and Disinformation' (Institute for Strategic Dialogue 2025) 8 <https://www.isdglobal.org/wp-content/uploads/2025/02/Online-Safety-Regulation-and-Private-Online-Communications-State-of-Play.pdf> accessed 2 July 2025.

13 'Most popular global mobile messenger apps as of February 2025, based on number of monthly active users', *Statista* <https://www.statista.com/statistics/258749/most-popular-global-mobile-messenger-apps/> accessed 2 July 2025.

14 Statista (n 13).

15 For instance, in 2024, the Dutch Lower Chamber organised a roundtable discussion with experts about how illegal content on Telegram can be addressed, see <https://www.tweedekamer.nl/debat_en_vergadering/commissievergaderingen/details?id=2024A01866>. Furthermore, in August 2024, the CEO of Telegram, Pavel Durov, was arrested in France in the context of criminal investigations into illegal content on the app, see Damien Leloup and Benjamin Quénelle, 'Telegram CEO Pavel Durov Arrested in France in World-First Case' *Le Monde* (25 August 2024) <https://www.lemonde.fr/en/pixels/article/2024/08/25/telegram-ceo-pavel-durov-arrested-in-france-in-world-first-case_6721434_13.html> accessed 2 July 2025.

16 The European Parliament has even formally asked the European Commission how Telegram must be categorised under the DSA, see Kim van Sparrentak, 'Applicability of the Digital Services Act to Platforms Such as Telegram - Question for Written Answer E-002762/2024/Rev.1 to the Commission' (4 December 2024) <https://www.europarl.europa.eu/doceo/document/E-10-2024-002762_EN.html>. However, the Commission in its answer has refrained from categorising Telegram's functionalities, see 'Answer given by Executive Vice-President Virkkunen on Behalf of the European Commission' (17 February 2025) <https://www.europarl.europa.eu/doceo/document/E-10-2024-002762-ASW_EN.html>.

17 Sebastian Felix Schwemer, Tobias Mahler and Håkon Styri, 'Liability Exemptions of Non-Hosting Intermediaries: Sideshow in the Digital Services Act?' (2021) 8 Oslo Law Review 4; Christoph Busch, 'Regulating the Expanding Content Moderation Universe: A European Perspective on Infrastructure Moderation' (2022) 27 UCLA Journal of Law and Technology 32.

18 Busch (n 17); Tahireh Panahi and others, 'Desinformationserkennung Anhand von Netzwerkanalysen – Ein Instrument Zur Durchsetzung Der Pflichten Des DSA Am Beispiel von Telegram' in Michael Friedewald and others (eds), *Daten-Fairness in einer globalisierten Welt* (Nomos 2023) 346–347 <doi.org/10.5771/9783748938743>; Erik Tuchtfeld, 'Don't shoot the Messenger' (*Verfassungsblog*,

to a detailed analysis, encompassing all WhatsApp's and Telegram's different group chat and channel functionalities. Furthermore, in light of Matamoros-Fernández's call to extend the content moderation debate to encrypted messaging apps,[19] it is crucial to know under which circumstances messaging apps can be held liable for illegal content shared by their users and which due diligence obligations they have under the DSA.

9 After this introduction, the paper discusses the definitions for the various intermediary services categories in the DSA (section B). Then, the paper introduces the two case studies (section C), and analyses them in light of the DSA's definitions (section D). The case study analysis brings to the fore two features of messaging apps that can give otherwise private chat groups and channels a semi-public character, despite not turning them into online platforms from the perspective of the DSA (section E). In the conclusion, the paper reflects on the many further research questions regarding this topic and some possible solutions to the DSA's gap regarding semi-public functionalities of messaging apps (section F).

B. Definitions of Intermediary Services in the DSA

10 The DSA distinguishes three types of intermediary services: mere conduit, caching, and hosting. It also delineates online platforms as a subcategory of hosting services. The following section discusses the DSA definitions, which are then applied to WhatsApp and Telegram in section D.

I. The Concepts of "mere conduit", "caching" and "hosting"

1. Mere Conduit

11 The DSA defines a mere conduit service as performing the technical functionalities of "the transmission in a communication network of information provided by a recipient of the service, or the provision of access to a communication network".[20] Thus, a mere conduit service transmits information through electronic networks or provides access to such a network.

12 According to the DSA, mere conduits' acts of transmission and provision of access may include "the automatic, intermediate and transient storage of the information transmitted in so far as this takes place for the sole purpose of carrying out the transmission in the communication network, and provided that the information is not stored for any period longer than is reasonably necessary for the transmission".[21] In other words, while mere conduit services primarily transmit information or provide access, they may also transiently store information.

13 The meaning of "transient storage" depends on the purpose of the storage. The DSA determines that by definition, mere conduit providers store information for the sole purpose of carrying out the transmission. Therefore, if a service provider stores information for other purposes and thus for a longer time than is necessary for the transmission, it cannot qualify as a mere conduit provider and might be categorised as a caching or hosting provider.

14 Several messaging apps currently available on the market qualify as mere conduit services because they transmit their users' messages without storing them on their servers beyond a transient period.[22] This conclusion is confirmed by the DSA's preamble, which gives interpersonal communication services as an example of mere conduit services.[23] The concept of "interpersonal communication services" is defined in the European Electronic Communications Code ("EECC") and will be further discussed in section D.II of this paper. Still, for now, it is sufficient to state that messaging apps have traditionally been interpersonal communication services in the sense that they facilitate mediated communication between two people.[24] In a passage unrelated to mere conduit services, the DSA's preamble also briefly talks about interpersonal communication services and then gives private messaging services

21 December 2021) <https://verfassungsblog.de/dont-shoot-the-messenger/>; Eva Ellen Wagner, 'Telegram Als Herausforderung Für Die Plattformregulierung: Digitale Kommunikationsdienste Zwischen Privater Und Öffentlicher Kommunikation' (2022) 105 Kritische Vierteljahresschrift für Gesetzgebung und Rechtswissenschaft 109; Husovec, *Principles of the Digital Services Act* (n 4).

19 Ariadna Matamoros-Fernández, 'Encryption Poses Distinct New Problems: The Case of WhatsApp' (2020) 9 Internet Policy Review <https://policyreview.info/articles/analysis/expanding-debate-about-content-moderation-scholarly-research-agendas-coming-policy>.

20 Art 3(g)(i) DSA.

21 Art 4(2) DSA.

22 Martin Husovec, 'Liability Exemptions: Specific Services', *Principles of the Digital Services Act* (Oxford University Press 2024) 125–126.

23 Rec 29 DSA.

24 Jörg Becker, Bernd Holznagel and Kilian Müller, 'Interoperability of the EKEK to Messenger Services' in Judit Bayer and others (eds), *Perspectives on platform regulation: concepts and models of social media governance across the globe* (2021) 131–133.

as an example.[25] Thus, the DSA is based on the idea that messaging services are typically interpersonal communication services and, thereby, mere conduit services.

2. Caching

15 The DSA describes a caching service as "consisting of the transmission in a communication network of information provided by a recipient of the service, involving the automatic, intermediate and temporary storage of that information, performed for the sole purpose of making more efficient the information's onward transmission to other recipients upon their request".[26] This definition is – in a somewhat unsystematic manner – slightly extended by the DSA's provision on conditional immunity for caching services. The latter provision states that the temporary storage offered by caching services has the purpose of making the transmission "more efficient *or more secure*".[27] Thus, the temporary storage of a caching service must be for efficiency or security reasons.

16 Caching services are similar to mere conduit services in that they primarily transmit information through networks, where such transmission may involve intermediate storage. The difference between those services lies in the type of intermediate storage. Mere conduit services provide *transient* storage to carry out the transmission, and caching services offer *temporary* storage to make the transmission more efficient or secure.

17 The meaning of "temporary storage" by caching services thus depends on the purpose of the storage, similar to how the meaning of "transient storage" in the case of mere conduit services is defined through its purpose. The DSA allows caching services to store information for the sole purpose of making the transmission more efficient or secure. Thus, if a service provider stores information for other reasons and hence longer than is necessary for efficiency or security reasons, it cannot qualify as a caching service and might instead be a hosting service (assuming it was already disqualified as a mere conduit service).

18 The preamble to the DSA gives a few examples of caching services, such as content delivery networks, reverse proxies or content adaptation proxies.[28] While these examples do not bring messaging apps to mind, some messaging apps might qualify as caching services if they temporarily store messages on their servers to make the transmission more efficient. For instance, as will become clear in section C of this paper, WhatsApp stores media *included in messages*, such as photos, on its servers for up to 30 days to make the delivery, and specifically the forwarding, of messages more efficient. Thus, although WhatsApp is not a typical caching service, it provides such services if we look at the DSA's definition. This illustrates the point made by Wilman, Kalėda and Loewenthal, that "the legal concept of 'caching' could over time conceivably be construed in a manner extending beyond its original, narrow technical meaning".[29]

3. Hosting

19 Finally, the DSA defines hosting services as "consisting of the storage of information provided by, and at the request of, a recipient of the service".[30] Where mere conduit and caching services focus primarily on transmitting information, hosting services store information for their users on a server or in the cloud, with the storage being the core of the actual service. The Regulation on addressing the dissemination of terrorist content online ("TCO Regulation"), which uses several similar concepts as the DSA, defines storage in this context as "holding data in the memory of a physical or virtual server".[31] Although mere conduit and caching services may briefly store information for their users, hosting services offer storage of a more permanent character. The duration of the storage of hosting services is not limited to what is necessary to carry out the transmission of information or make such transmission more efficient or secure. Several messaging apps on the market that provide cloud storage for chats will count as hosting services.[32]

II. The Concept of "online platform"

20 Online platforms, and specifically very large online platforms, bear the majority of due diligence obligations in the DSA. The DSA defines "online platform" as 1) a hosting service that, 2) at the request of a recipient of the service, 3) stores and disseminates information to the public, 4) unless

25 Rec 14 DSA.

26 Art 3(g)(ii) DSA.

27 Art 5(1) DSA; italics by the paper's author.

28 Rec 29 DSA.

29 Folkert Wilman, Saulius Lukas Kalėda and Paul-John Loewenthal, 'Liability of Providers of Intermediary Services', *The EU Digital Services Act* (Oxford University Press 2024) 64.

30 Art 3(g)(iii) DSA.

31 Rec 13 TCO Regulation; see also Case C-324/09 *L'Oréal and others v. Ebay and Others*, para 110.

32 Husovec, 'Liability Exemptions' (n 22) 143.

– in brief – the activity of publicly disseminating information is a minor and purely ancillary feature of the service.[33] In the latter case, the service is only a hosting service. For the purposes of this paper, the third element of this definition should be analysed further.

21 The DSA defines the concept of "dissemination to the public" as "making information available, at the request of the recipient of the service who provided the information, to a potentially unlimited number of third parties".[34] The DSA's preamble further explains this concept:

> The concept of 'dissemination to the public', as used in this Regulation, should entail the making available of information to a potentially unlimited number of persons, meaning making the information easily accessible to recipients of the service in general without further action by the recipient of the service providing the information being required, irrespective of whether those persons actually access the information in question. Accordingly, where access to information requires registration or admittance to a group of recipients of the service, that information should be considered to be disseminated to the public only where recipients of the service seeking to access the information are automatically registered or admitted without a human decision or selection of whom to grant access. (...)[35]

22 The phrase "making the information easily accessible to *recipients of the service in general*" suggests that whether information is disseminated to the public should be assessed within the context of a specific service. That is to say, the question is whether all users of the service can access the information, not whether the entire world, including people who have not registered for the service, can access the information.

23 The DSA's preamble also stipulates that to count as an online platform, information on a hosting service should be *easily* accessible to all the service's users. The preamble does not explicitly explain when access to information is considered easy or difficult, but the preamble's text suggest that "easily" (and thereby, the "definition of dissemination to the public") should be understood in relation to access control. Immediately after the sentence containing the reference to "easily", the preamble provides that "[a]ccordingly, where access to information requires registration or admittance to a group of recipients of the service, that information should be considered to be disseminated to the public only where recipients of the service seeking to access the information are automatically registered or admitted without a human decision or selection of whom to grant access". In other words, if an online service hosts information in groups to which people need to be admitted before they can access the information, then the host becomes a platform only where people are admitted to those groups automatically or without a selection of whom to grant access. In such a case, access to the information can probably be considered easy for the service's users.

24 A "selection of whom to grant access" might in practice also be linked to the findability of information. Where access to information requires registration or admittance to a group of recipients of a service, but a user can only find the group when an admin or member invites them to the group by adding them or sending an invite link, and not via the service's search function, then there is a selection of whom to grant access (namely: who is actively invited?). In such a case, one could also say that the information is not "*easily* accessible to recipients of the service in general". In other words, where information is available only in a specific online group, and one must be added or receive an invite link to find the group, the group probably does not qualify as an online platform service. This interpretation of the DSA is further discussed in section E.I.

25 The DSA's preamble's explanation on access control also implies that "the mere existence of a registration process does not make [online] services private".[36] Only manual access control to information hosted in online groups keeps those groups private and prevents them from being categorised as online platform services. For instance, if a messaging app enables group chats that can be viewed only after registration to the group, then that in itself does not prevent the app's group chat functionality from being categorised as an online platform. As long as users of the messaging app can automatically join those chat groups (and the groups can be found), the information in those groups may be considered to be disseminated to the public, provided that the other elements of the definition are also met.

26 The foregoing paragraphs also lead to the observation that the class of "potentially unlimited number of third parties" who receive the information shared via a service should be unlimited in terms of access control and not in terms of actual numbers. That is

33 Art 3(i) DSA. Bracketed numbers added by the paper's author.

34 Art 3(k) DSA.

35 Rec 14 DSA. The DSA has borrowed the concept of 'dissemination to the public' and the further interpretation of this phrase from Art 2(3) and Rec 13 TCO Regulation.

36 Martin Husovec, 'Introduction to Accountability Framework', *Principles of the Digital Services Act* (Oxford University Press 2024) 165.

to say, if a messaging app enables chat groups with only a *limited* number of users – for instance, 1024 or 200.000 users – then this numerical limitation does not in itself prevent those chat groups from being qualified as online platforms. Likewise, if a messaging app offers channels with an *unlimited* number of users, then this feature does not necessarily lead to the conclusion that these channels are online platform services. The question is how users of the service can join those chat groups and channels (automatic or manual access control), not whether some people might be barred from joining certain groups because they reached their maximum number of users, nor whether a numerically unlimited number of people can follow a channel.

27 The DSA's preamble further explains that "dissemination to the public" means that information is made public "without further action by the recipient of the service providing the information being required". This phrase is not further explained in the DSA or its legislative history. Still, one can imagine a situation in which someone uploads a document to a hosting service and then subsequently shares the URL to the document on their publicly accessible social media profile. Such further sharing of an otherwise private URL probably does not turn the original hosting service into an online platform.

28 Finally, the DSA's preamble juxtaposes online platforms with interpersonal communication services:

> (...) Interpersonal communication services, as defined in Directive (EU) 2018/1972 of the European Parliament and of the Council (24), such as emails or private messaging services, fall outside the scope of the definition of online platforms as they are used for interpersonal communication between a finite number of persons determined by the sender of the communication. However, the obligations set out in this Regulation for providers of online platforms may apply to services that allow the making available of information to a potentially unlimited number of recipients, not determined by the sender of the communication, such as through public groups or open channels. (...)[37]

29 In other words, a service cannot be both an interpersonal communication service and online platform. The EECC defines the concept of "interpersonal communications service" as enabling interpersonal and interactive exchange of information via electronic communications networks between a finite number of persons, whereby the persons initiating or participating in the communication determine its recipients.[38] Typical examples of interpersonal communications services are voice calls between two individuals, emails, and one-to-one messaging services.[39] From this definition, it follows that on online platforms, the sender of information *does not* determine its recipients, which is also stressed in the preamble's passage quoted above.

30 The idea that on online platforms, the sender of information does not determine its recipients could be seen as another manifestation of the idea that online platforms lack manual access control over who can view the information. If the sender of information determines its recipients, they effectively control who can access the information. Nonetheless, for the analysis in section D, it is useful to consider both aspects separately, being mindful of the fact that in essence they express the same idea.

31 Notably, the DSA's preamble suggests that "public groups or open channels", presumably on messaging services, may be online platforms. However, a more detailed analysis of all the features of a messaging app's functionality is required before we can conclude that it is an online platform, as will be shown in section D of this paper.

32 If we integrate all these explanations and definitions, then it can be said that an online platform is 1) a hosting service that, 2) at the direct request of a recipient of the service, 3) stores and disseminates information to the public, meaning that a) all recipients of the service can easily access the information without manual access control, and b) the sender of the information does not determine its recipients, 4) unless these publicising activities are not the core activity of the service. The following section will describe the case studies, after which the definitions of "mere conduit", "caching", "hosting", and "online platform" are applied to them.

C. Description of Case Studies

33 WhatsApp and Telegram are two popular messaging apps that offer, among other things, group chats and channels. To understand the workings of both apps, the following publicly available documents have been consulted:

34 For WhatsApp: FAQ,[40] Terms of Service (for the EEA),[41]

37 Rec 14 DSA.

38 Art 2(5) EECC.

39 Rec 17 EECC.

40 'Help center', *WhatsApp* <https://faq.whatsapp.com> accessed 2 July 2025.

41 'WhatsApp Terms Of Service', *WhatsApp* <https://www.whatsapp.com/legal/terms-of-service-eea> accessed 2 July

Privacy Policy (for the EEA),[42] Supplemental Terms of Service for Channels,[43] Supplemental Privacy Policy for Channels,[44] and Channels Guidelines.[45]

35 For Telegram: FAQ,[46] Privacy Policy,[47] Terms of Service,[48] Channels FAQ,[49] User Guidance for the EU Digital Services Act,[50] and FAQ for the Technically Inclined.[51]

36 For both apps, the author of this paper found several default settings by using the apps, such as by creating a new chat group. In the section below, WhatsApp's and Telegram's descriptions are primarily based on their FAQ, unless otherwise specified in the footnotes.

I. WhatsApp

37 WhatsApp is a messaging app owned by Meta. It was founded in 2009 and acquired by Meta in 2014. WhatsApp is the most popular global messaging app, with almost 3 billion monthly users.[52]

38 If you open WhatsApp on a phone, you can choose between five tabs at the bottom of the screen: Updates, Calls, Communities, Chats, and Settings. These tabs offer access to multiple functionalities: individual and group chats, communities, channels, status updates, and voice and video calls or voice chats. Status updates (similar to Stories on Instagram), communities, voice and video calls and voice chats are outside the scope of this paper. WhatsApp also provides access to Meta AI, an LLM service within WhatsApp, which is also excluded from the scope of this paper.

1. Group Chats

39 *Type of communication.* WhatsApp group chats enable people to send messages in groups.[53] The default setting for a new group is that each group member can send messages. Thus, such groups afford many-to-many and two-way communication.[54] However, group admins can toggle off the option for members to send messages, making the communication one-to-many and one-way.[55]

40 *Size*. WhatsApp groups can have up to 1024 members.

41 *Organisation.* Creators of WhatsApp groups become group admins. Admins can appoint more admins for their groups.

42 *Findability*. WhatsApp users can find and join group chats in multiple ways. First, group admins and members can add new members to a group. However, group admins can change this setting so only admins can add new members.[56] Second, each group automatically has a link. Group admins can invite people to join a group by sharing the group link. Group members cannot access this link via the app to send it to others.[57] Furthermore, WhatsApp can block a group's invite link feature to address

2025.

42 'WhatsApp Privacy Policy', *WhatsApp* <https://www.whatsapp.com/legal/privacy-policy-eea> accessed 2 July 2025.

43 'Supplemental Terms of Service for WhatsApp Channels', *WhatsApp* <https://www.whatsapp.com/legal/channels-terms-of-service> accessed 2 July 2025.

44 'WhatsApp Channels Supplemental Privacy Policy', *WhatsApp* <https://www.whatsapp.com/legal/channels-privacy-policy> accessed 2 July 2025.

45 'WhatsApp Channels Guidelines', *WhatsApp* <https://www.whatsapp.com/legal/channels-guidelines/> accessed 2 July 2025.

46 'Telegram FAQ', *Telegram* <https://telegram.org/faq> accessed 2 July 2025.

47 'Telegram Privacy Policy', *Telegram* <https://telegram.org/privacy/eu> accessed 2 July 2025.

48 'Terms of Service', *Telegram* <https://telegram.org/tos/eu> accessed 2 July 2025.

49 'Channels FAQ', *Telegram* <https://telegram.org/faq_channels> accessed 2 July 2025.

50 'User guidance for the EU Digital Services Act', *Telegram* <https://telegram.org/tos/eu-dsa> accessed 2 July 2025.

51 'FAQ for the Technically Inclined', *Telegram* <https://core.telegram.org/techfaq> accessed 2 July 2025.

52 Statista (n 13).

53 WhatsApp also offers a functionality called 'broadcast lists' which, on a first sight, might look like group chatting. People can use broadcast lists to send the same message to several contacts at once. If someone uses a broadcast list, then each contact in the list receives the message sent via the list as an individual (one-to-one) chat with the sender. Broadcast lists are thus not a form of group communication but a tool for sending multiple identical individual chat messages simultaneously.

54 Gabriele Balbi and Juraj Kittler, 'One-to-One and One-to-Many Dichotomy: Grand Theories, Periodization, and Historical Narratives in Communication Studies' (2016) 10 International Journal of Communication 20.

55 It is not entirely correct to describe a group with restricted messaging options for members as one-to-many and one-way. If such a group has multiple admins, then these admins can still send messages to each other in front of the other group members. Furthermore, in such groups, members can still react with emojis to messages shared by group admins. Groups with restricted messaging options for members thus still have a degree of interactivity that is lacking in traditional one-to-many and one-way communication such as television broadcasting.

56 The author of this paper found this by using the app.

57 The author of this paper found this by using the app.

Terms of Service violations. Third, groups in a community can also be found and joined via the group directory in that community. WhatsApp users cannot search for groups to join through WhatsApp's search interface.[58]

43 *Links.* Group links on WhatsApp can be URLs or QR codes. They can be shared with and used by multiple people and are not created to invite one specific person.[59] Group admins can reset group links to make them invalid and create new links.

44 *Admission.* WhatsApp's default setting is that anyone who finds a group can join and is automatically granted admission. However, group admins can toggle on the "approve new members" setting. Once this setting is on, admins must review every request to join the group before a member is admitted.

45 *Message visibility.* Messages posted in a WhatsApp group are visible only to a group's members.[60]

46 *Message history.* When someone joins a WhatsApp group, they cannot see messages sent in the group before they joined, but only the messages sent since joining. Furthermore, the "disappearing messages" feature can be turned on in a group so that messages disappear within 24 hours, 7 days, or 90 days after they have been sent. By default, each group member can turn on "disappearing messages", but admins can change a group's settings to allow only admins to do this.

47 *Encryption.* All messages shared in group chats on WhatsApp are protected with end-to-end encryption.[61]

48 *Storage.* WhatsApp's Privacy Policy explains how messages in group chats are stored.[62] In principle, WhatsApp stores these messages on users' devices and not on its own servers. However, WhatsApp stores messages in encrypted form on its servers while they are being delivered. Once a message is delivered, WhatsApp deletes it from its servers. Furthermore, if WhatsApp cannot deliver a message, it stores it in encrypted form on its servers for up to 30 days while trying to deliver it. If a message is undelivered after 30 days, WhatsApp deletes it from its servers.

49 WhatsApp takes a slightly different approach to storing media, such as pictures, within messages. Media within messages are always stored for up to 30 days in encrypted form on WhatsApp's servers to facilitate more efficient delivery, such as when users forward a picture to other users.[63]

50 The possibility of "linking" devices on WhatsApp has no implications for its storage policies. Linked devices means that WhatsApp users can access their accounts via their phones, desktop apps, browsers, tablets, and wearable devices such as smartwatches. When users link several devices, their primary phone sends an end-to-end encrypted copy of their most recent messages to the newly linked device, where the messages are stored locally. Thus, the fact that WhatsApp enables linked devices does not mean that WhatsApp stores messages on its servers.

51 Likewise, the backup function within WhatsApp does not change its storage policies. WhatsApp enables users to backup their chat history via their Google or iCloud account. In that case, the cloud storage is provided by Google or Apple, not by WhatsApp.[64]

2. Channels

52 *Type of communication.* Channels on WhatsApp enable people and organisations to send messages ("updates") to a group of followers. The default setting is that followers cannot chat back but add emoji reactions to updates and vote on polls. Channel admins can turn off the emoji reactions.[65] Channels thus provide one-to-many and one-way communication,[66] although the ability to react with emojis and vote on polls gives channels some interactivity.

53 WhatsApp introduced channels in 2023.[67] News organisations, football clubs, public bodies like the European Commission, influencers, and many other parties use channels to send updates to their followers.

54 At first glance, channels resemble group chats set up so only admins can send messages. However, as the discussion below shows, channels have different features from group chats, making them different functionalities.

55 *Size.* The number of followers of a WhatsApp channel is unlimited.

56 *Organisation.* Creators of WhatsApp channels become

58 The author of this paper found this by using the app.
59 With thanks to Paddy Leerssen for pointing me to this feature.
60 WhatsApp Privacy Policy (n 42).
61 WhatsApp Privacy Policy (n 42).
62 WhatsApp Privacy Policy (n 42).
63 WhatsApp Privacy Policy (n 42).
64 'How to back up your chat history', *WhatsApp* <https://faq.whatsapp.com/481135090640375> accessed 2 July 2025.
65 The author of this paper found this by using the app.
66 WhatsApp (n 2).
67 WhatsApp (n 2).

admins. Admins can appoint more channel admins.[68]

57 *Findability*. WhatsApp users can find and join channels in several ways. First, each channel automatically has a link. Channel admins can share this link with contacts or via other websites such as social media. WhatsApp encourages such sharing practices,[69] unlike its policy that discourages the public sharing of group and community invite links.[70] Channel followers can also access the channel link to share it (via the "share" option in a channel's menu) with other contacts.[71] Second, users can find channels via a searchable directory within WhatsApp.[72]

58 *Admission.* When a WhatsApp user finds a channel, they can click "follow" and are automatically admitted. Channel admins cannot approve new followers or remove them.

59 *Message visibility.* Anything channel admins share in their channel is public and visible to all their followers and people who don't follow the channel but only open it in the app ("viewers").

60 *Message history.* Updates shared in a channel are available for 30 days for its followers and viewers.

61 *Encryption.* WhatsApp's FAQ and Privacy Policy do not explicitly state that it does *not* provide end-to-end encryption to channels, but the lack of such encryption is implied.[73]

62 *Storage.* Updates shared in channels are stored on WhatsApp's servers for up to 30 days.

II. Telegram

63 Telegram is a messaging app that launched in 2013. News reports often state that the brothers Nikolai and Pavel Durov co-founded Telegram, although Telegram's Press Info webpage currently only lists Pavel as the app's founder, owner, and CEO.[74] Telegram is the fourth most popular global messaging app, with around 900 million users in 2024.[75]

64 If you open Telegram on a phone, you can choose between three tabs at the bottom of the screen: Contacts, Chats, and Settings. Chats gives access to all the messaging functionalities, including individual and group chats, channels, and Stories (similar to Stories on Instagram). Telegram also enables (video) calling with individuals and groups.[76] The (video) calling and Stories functionalities within Telegram are excluded from the scope of this paper.

1. Group Chats

65 *Type of communication.* Telegram's group chats allow users to send messages in groups. When a group has been created, the default is that each group member can send messages in the group.[77] Group chats thus afford many-to-many and two-way communication. However, group owners can configure a group so that only they and admins can send messages. In that case, the communication is one-to-many and one-way.[78]

66 *Size.* Telegram groups can have up to 200.000 members.

67 *Organisation.* A creator of a Telegram group become its "owner". Group owners can appoint admins and decide which privileges each admin has. The following paragraphs describe the powers of group owners, but some of these actions might also be performed by admins, depending on the privileges they receive.

68 To further describe the features of Telegram groups, it is necessary to distinguish between private and public groups. It should be noted that Telegram's use of the terms "private" and "public" does not

68 When WhatsApp introduced Channels in 2023, it was still possible for admins 'to decide ... whether they want their channel to be discoverable in the directory or not', see WhatsApp (n 2). However, it appears that the option to make a channel 'private' has disappeared.

69 'About creating a WhatsApp Channel', *WhatsApp* <https://faq.whatsapp.com/265055289421317> accessed 2 July 2025.

70 'How to create and invite into a group', *WhatsApp* <https://faq.whatsapp.com/3242937609289432> accessed 2 July 2025.

71 The author found this by using the app.

72 WhatsApp (n 2).

73 WhatsApp FAQ states: 'Channel updates are kept in a separate tab from your chats. As always, your personal messages and calls remain end-to-end encrypted. No one else, not even WhatsApp, can read or listen to them'; see 'About safety and privacy on channels', *WhatsApp* <https://faq.whatsapp.com/1318001139066835> accessed 2 July 2025.

74 'Telegram Press Info', *Telegram* <https://telegram.org/press> accessed 2 July 2025.

75 Statista (n 13).

76 Telegram's video calling functionalities are accessible via a contact's profile or a group chat.

77 The author of this paper found the default setting by using the app.

78 Similar to group chats on WhatsApp, it could be noted that it is not entirely correct to describe Telegram groups with restricted messaging options as 'one-to-many', because if a group has multiple admins, these admins can send messages to each other in front of the other group members.

necessarily correspond with what can be considered private and public from the perspective of the DSA. This section follows Telegram in its use of "private" and "public" to distinguish the two types of chat groups and channels, but then re-evaluates the use of these terms in section D.

69 Telegram groups are private by default, but group owners can make them public.

70 *Findability.* Telegram users can find and join private and public groups in multiple ways.[79] First, group owners and members of private and public groups can add contacts to a group or add users by searching for their usernames.[80] However, group owners can choose to disable members from adding new members.[81] Second, people can be invited via a link. Telegram automatically creates a link for private groups that starts with "https://t.me/" and is followed by a random string of characters. When a group owner chooses to make its private group public, they must also create a name for the group, so that the link will look like, for instance, "https://t.me/publictestgroup". Consequently, owners of private and public groups can send these links to other people. Members of public groups can also access a group's invite link to share it with others.[82] To the contrary, private group members cannot access these invite links via the app.[83] Third, Telegram users can search for public groups via Telegram's search function within the app to join them.[84] The search function does not include private groups in its search results.

71 *Links.* Invite links on Telegram take the form of a URL or QR code.[85] They can be shared with and used by multiple people and, thus, are not created to invite one specific person.[86] Group owners can revoke group links to make them invalid and create new links.[87]

72 *Admission.* Telegram's default setting is that anyone who finds a group through an invite link or, in the case of public groups, Telegram's search function and clicks "join" is automatically admitted. However, private group owners can toggle on the "request admin approval" setting.[88] People can then join the group only after the group owner approves them. Public group owners have a slightly different option. They can toggle on the setting "approve new members".[89] When this setting is on, new members can join a group immediately, but can start messaging in the group only after the group owner approves them.

73 *Message visibility.* Messages posted in private Telegram groups are visible only to group members. Messages posted in public groups are visible to both group members and Telegram users who open the group in the app but are not members. Each message in a public group also has a link that can be shared elsewhere.[90]

74 *Message history.* New members of a private Telegram group can see up to 100 previously sent messages by default.[91] Private group owners can also configure a group so that new members can see all messages sent before joining.[92] New members of a public Telegram group can see its entire chat history. Public group owners cannot toggle off this chat history feature.[93]

75 *Encryption.* Messages shared in Telegram group chats are encrypted, but not with end-to-end encryption. Users can start an individual (one-to-one) chat as a "secret chat", which is end-to-end encrypted. However, secret chats are not available for group chats. Thus, neither private nor public group chats are end-to-end encrypted.

76 *Storage.* Telegram is a cloud service, which means that messages in group chats are stored in the cloud.

79 Nathalie Van Raemdonck and Jo Pierson, 'Contentious Content on Messaging Apps: Actualising Social Affordances for Normative Processes on Telegram' in Hopeton S Dunn and others (eds), *The Palgrave Handbook of Everyday Digital Life* (Springer International Publishing 2024).

80 The author of this paper found that both owners and members can add people by using the app.

81 The author of this paper found this feature by using the app.

82 The author of this paper found this feature by using the app.

83 The author of this paper found this feature by using the app.

84 Note that Pavel Durov states in a message posted to his public Telegram channel that 'Search on Telegram ... allows users to find public channels and bots', see <https://t.me/durov/345> accessed 2 July 2025. This statement leaves out that search on Telegram also allows users to find public groups.

85 The author of this paper found these features by using the app.

86 The author of this paper found this feature by using the app. With thanks to Paddy Leerssen for pointing me to this aspect.

87 The author of this paper found this by using the app.

88 Telegram, 'Hyper-Speed Scrolling and Calendar View for Shared Media, Join Requests, Global Chat Themes on iOS and More' (3 November 2021), <https://telegram.org/blog/shared-media-scrolling-calendar-join-requests-and-more> accessed 2 July 2025; see also author's app use.

89 The author of this paper found this feature by using the app.

90 The author of this paper found this feature by using the app.

91 The author of this paper found this feature by using the app. Confusingly, in the Telegram interface, this configuration is the 'hidden' option for the feature 'chat history for new members'.

92 The author of this paper found this feature by using the app. In the Telegram interface, this configuration is the 'visible' option for the feature 'chat history for new members'.

93 The author of this paper found this feature by using the app.

The cloud storage ensures that messages are synced across all the devices a user logs in to. Secret chats are not stored in the cloud, but, as just mentioned, group chats cannot be secret and are therefore always stored in the cloud.

2. Channels

77 *Type of communication.* Telegram channels allow individuals and organisations to send messages to large audiences ("subscribers"). The default is that subscribers cannot send messages in a channel, although they can respond with emojis to messages sent. Channel owners can turn off the emoji response feature to have less interactivity. On the other hand, channel owners can also toggle on the "discussion" feature for more interactivity.[94] If this feature is on, a discussion group is added to the channel, and each message sent by a channel owner will have a comment button below it, enabling subscribers to comment on the message. These comments show up as a thread below the original message in the channel and are also automatically forwarded to the discussion group attached to the channel.[95]

78 Telegram describes channels as a "tool for broadcasting".[96] To some degree, channels are indeed for one-to-many and one-way communication.[97] However, emoji responses provide some interactivity, and when the discussion feature is enabled, a channel is even more interactive.

79 *Size.* Telegram channels can have an unlimited number of subscribers.

80 *Organisation.* A creator of a Telegram channel becomes its owner.[98] Owners can appoint channel admins and decide which privileges each admin has.[99] The following paragraphs describe the powers of channel owners, but some of these actions might also be performed by admins, depending on the privileges they receive.

81 To further describe the features of Telegram channels, it is necessary to distinguish between private and public channels. Again, Telegram's use of these terms does not necessarily correspond with what can be considered private and public from the perspective of the DSA. This section also follows Telegram in its use of "private" and "public" to distinguish the two types of channel, but then re-evaluates the use of these terms in section D.

82 Channels are private by default, but owners can make them public.

83 *Findability.* Telegram users can find and subscribe to a channel in multiple ways.[100] First, owners of private and public channels can add new subscribers to the channel. Once a channel has 200 subscribers, owners can no longer manually add new subscribers. From that point, new subscribers must find and join the channel in other ways. Second, people can subscribe to a channel via a link. Telegram automatically creates a link for private channels that looks like "https://t.me/" and is followed by a random string of characters. When a channel owner wants to make a private channel public, they must also create a name for the channel so that the link will look like, for instance, "https://t.me/publictestchannel". Owners of private and public channels can then send these invite links to others. For public channels, subscribers can also access the links to send them to others.[101] Subscribers of private channels cannot access the invite links via the app menu.[102] Third, Telegram users can search for public channels via Telegram's search function within the app to subscribe.[103] Private channels are not included in the search results.[104]

84 *Admission.* When a Telegram user finds a channel, they can join and are automatically admitted. However, private and public channel owners can remove subscribers.[105] Channel owners cannot turn of automatic admission.[106]

85 *Message visibility.* Messages posted in private Telegram channels are visible only to channel subscribers. Messages posted in public channels are visible to subscribers, Telegram users who are not subscribed to the channel but open it in the app, and even people who don't have a Telegram account but open the channel via a link in their browser and click "preview channel".[107] Each message in a public or private channel also has a link which can be shared

94 Telegram, 'Search Filters, Anonymous Admins, Channel Comments and More' (30 September 2020) <https://telegram.org/blog/filters-anonymous-admins-comments> accessed 2 July 2025.

95 Telegram, 'Focused Privacy, Discussion Groups, Seamless Web Bots and More' (31 May 20219) <https://telegram.org/blog/privacy-discussions-web-bots> accessed 2 July 2025.

96 Telegram (n 92).

97 Balbi and Kittler (n 54).

98 Telegram Channels FAQ (n 49).

99 Telegram Channels FAQ (n 49).

100 Telegram Channels FAQ (n 49).

101 The author of this paper found this feature by using the app.

102 The author of this paper found this feature by using the app.

103 Telegram Channels FAQ (n 49).

104 The author of this paper found this feature by using the app.

105 Telegram Channels FAQ (n 49).

106 The author of this paper found this feature by using the app.

107 The author of this paper found the latter point by using the app. See, for instance, the public channel of Telegram's CEO, Pavel Durov: <https://t.me/s/durov>.

on other websites.[108]

86 *Message history.* When Telegram users subscribe to a private channel, they can see its entire message history.[109] On public channels, when Telegram users subscribe to or just open one, they can also see its entire message history.[110] Channel owners cannot turn of this message history feature.[111]

87 *Encryption.* Messages shared in Telegram channels are encrypted, but not with end-to-end encryption. Channels cannot be used for secret chats.

88 *Storage.* Messages shared in Telegram channels are stored in the cloud.

D. Application of Definitions to Case Studies

89 The DSA revolves around different types of intermediary services. To categorise the various functionalities offered by WhatsApp and Telegram under the DSA, a first question is what unit should be considered a service.[112] Do WhatsApp and Telegram both offer one service, namely a messaging service, with different functionalities (individual chats, group chats, channels) or are the various functionalities that they provide separate services, namely an individual chat service, group chat service and channel service? Furthermore, if these are indeed separate services, are Telegram's private and public group chats and channels then also separate services, or are these just different functionalities of broader group chat and channel services?

90 The DSA does not define the scope of the concept of "service", but it contains a hint on how to understand it. The definition of online platform stipulates that a hosting service where the dissemination of information to the public is a "minor functionality of the principal service and, for objective and technical reasons, cannot be used without that other service" is not an online platform.[113] From this, it can be inferred that when a functionality is *not* minor and can be used without other parts of the service, it might be, in Husovec's words, "separable" and, therefore, an independent service.[114] For instance, the European Commission concluded that Messenger is a service separate from Facebook.[115]

91 Based on this interpretation, this paper proceeds on the assumption that WhatsApp and Telegram provide multiple services, since all these chat functionalities can be used independently of each other. WhatsApp offers individual chat, group chat and channel services, and Telegram offers individual chat, private and public group chats and private and public channel services.

I. WhatsApp

92 The first question is whether WhatsApp's group chat and channel functionalities are mere conduit, caching, or hosting services. The answer depends on WhatsApp's storage policies, which differ for group chats and channels. The second question is whether those services that qualify as hosting services are also online platform services.

1. Group Chats

93 WhatsApp's Privacy Policy emphasises that messages in group chats are stored on users' devices, which suggests that WhatsApp is merely transmitting information and, thus, is a mere conduit provider. However, it appears that WhatsApp also stores messages in group chats on its servers. The question then becomes whether such storage is transient and with the purpose of carrying out the transmission, temporary and with the purpose of making the transmission more efficient or secure, or more permanent, being a core part of the service offered to end-users. The fact that WhatsApp deletes a message from its servers once it has been delivered suggests that WhatsApp is transiently storing these messages to carry out the transmission. Therefore, WhatsApp's group chat functionality probably qualifies as a mere conduit service.

94 However, WhatsApp separately stores media in messages on its servers for up to 30 days "to aid in more efficient delivery", such as when someone forwards a meme to another chat.[116] In this case, the

108 The author of this paper found this feature by using the app.

109 Telegram Channels FAQ (n 49).

110 The author of this paper found that also people who are not subscribed to a public channel can see its entire message history.

111 The author of this paper found this feature by using the app. The menus with channel settings do not provide an option to change this message history feature.

112 With thanks to Paddy Leerssen for pointing me to this question.

113 Art 3(i) DSA.

114 Husovec, 'Introduction to Accountability Framework' (n 36) 174–175.

115 European Commission, 'Commission Decision of 25.4.2023 Designating Facebook as a Very Large Online Platform in Accordance with Article 33(4) of Regulation (EU) 2022/2065' (2023) <https://ec.europa.eu/newsroom/dae/redirection/document/101005> accessed 2 July 2025.

116 WhatsApp Privacy Policy (n 42).

purpose of the storage is making the transmission of the media more efficient, not just purely carrying out the transmission. This suggests that WhatsApp provides caching services for users sending media in group chats.

95 As group chats on WhatsApp are mere conduit and sometimes caching but never hosting services, they cannot be online platform services. Note that the possibility for linked devices and backups does not change this conclusion, since devices are linked via encrypted copies of chats that are stored on users' devices and cloud backups are hosted by Google or Apple, not by WhatsApp. In other words, linked devices and cloud backups do not involve WhatsApp hosting any user content.

2. Channels

96 Channel updates are stored on WhatsApp's servers for up to 30 days. In this case, the question is whether such storage is tied to the transmission, and thus part of mere conduit or caching services, or whether such storage is the core of the actual service delivered to end-users. Since WhatsApp does not delete channel updates from its servers after they have been delivered to a channel's followers, channels are not a mere conduit service. Furthermore, there are no indications in WhatsApp's Privacy Policy that WhatsApp stores channel updates for efficiency reasons. Instead, it seems that WhatsApp stores channel updates for 30 days to provide a message history feature so that, for instance, new followers or viewers can scroll back to see recent updates shared in the channel. WhatsApp also specifically explains to users that they can preview channel updates before they decide to follow a channel.[117] In other words, the storage of channel updates on WhatsApp's servers, albeit temporary, is a feature of the channel functionality. From that perspective, WhatsApp channels should be categorised as a hosting service.

97 If WhatsApp channels are hosting services, they might also be online platforms. As a reminder, section B of this paper broke down the definition of "online platform" into four elements: "an online platform is 1) a hosting service that, 2) at the direct request of a recipient of the service, 3) stores and disseminates information to the public, meaning that a) all recipients of the service can easily access the information without manual access control, and b) the sender of the information does not determine its recipients, 4) unless these publicising activities are not the core activity of the service." Note that in light of the observation in section B.II ("the idea that on online platforms the sender of information does not determine its recipients could be seen as another manifestation of the idea that online platforms lack manual access control over who can view the information"), the discussion under element 3(b) could also be rephrased as being about access control.

98 The main question in deciding whether WhatsApp channels are online platforms is whether they enable the dissemination of information to the public. The other two remaining elements, namely whether information is made public at the direct request of the sender, and whether these publicising activities are the core activity of channels, are assumed to be met for the purposes of this paper.

99 The first question is whether all WhatsApp users can easily access updates shared in channels without needing to pass manual access control. To access updates shared in a specific channel, people must register with WhatsApp. After registration with WhatsApp's services, WhatsApp users can find all the available channels via in-app search or when they receive an invite link, and they are automatically admitted to a channel when they click "follow". Moreover, WhatsApp users can even view updates shared in channels they are not following, as users do not need to follow – that is, register for – a channel to see its most recent content. Thus, channel updates are easily accessible to all users of WhatsApp's channel service in general, without manual access control.

100 The second question is whether the sender of a channel update determines its recipients. If a channel owner shares an update in their channel, they arguably determine the update's recipients, namely all the current followers of the channel (in other words: they manually control who can view the information). However, new followers of a channel can see updates shared up to 30 days ago. This means that when a channel owner shares an update, they do not fully determine its recipients, because afterwards new followers may join who can also see the update. Furthermore, as just mentioned, on WhatsApp, people not following a channel can view updates of up to 30 days old shared therein. This means that if a channel owner shares an update, an unknown group of viewers may also see it. For these reasons, a channel owner does not determine all the recipients of an update, that is, does not have full control over who can view the information they shared.

101 Thus, WhatsApp channels facilitate the dissemination of information to the public, and thereby, they are online platform services. One could say that all

117 WhatsApp, 'How to find and follow WhatsApp Channels' <https://faq.whatsapp.com/630432792316720> accessed 2 July 2025.

WhatsApp channels are public.

102 WhatsApp has also concluded that its channels are online platform services. Since February 2023, WhatsApp has been reporting every six months on the average monthly active users of WhatsApp channels,[118] in line with the DSA's reporting requirements for providers of online platforms.[119] Notably, in its February 2025 report on its average monthly active users, WhatsApp disclosed that from July to December 2024, WhatsApp Channels had approximately 46.8 million average monthly active users in the EU.[120] These user numbers cross the DSA's threshold for very large online platforms. Therefore, it is likely that the European Commission will designate WhatsApp Channels as such.

II. Telegram

103 The first question is whether Telegram's group chat and channel functionalities are mere conduit, caching, or hosting services. Telegram's group chat and channel functionalities are part of its cloud service, designed to provide seamless sync.[121] This indicates Telegram stores messages in group chats and channels for longer than just carrying out the transmission or making the transmission more efficient. Instead, the storage is part of Telegram's service offered to end-users. Therefore, Telegram's group chat and channel functionalities are hosting services.

104 The second question is whether Telegram's hosting services are also online platform services. To answer this question, we must separately analyse private and public group chats and channels. Again, we are using the concept of "online platforms" as parsed in section B of this paper. For all four services analysed below, we concentrate on the question of whether the service enables the dissemination of information to the public. Also note again that the discussion about whether the sender of the information determines its recipients can be rephrased as being about access control.

1. Private Group Chats

Does the sender of the information (not) determine its recipients?

105 When a member of a private group chat on Telegram sends a message in the group, it arguably determines the message's recipients (and in that sense manually controls who can view the information), namely all the current members of the group. Furthermore, messages posted in private group chats on Telegram are visible only to group members and not to anyone else (compare, for instance, messages posted in public Telegram groups, which are visible to both group members and people who just open the group in the app without joining it). From this perspective, one could argue that the sender of a message in a private Telegram group determines its recipients. It would follow that private Telegram groups cannot be online platforms.

106 However, an argument can be made that the sender of a message in a private Telegram group does *not* determine its recipients (thus, does not fully control who can view the information they shared), which opens the door to being categorised as online platform. When a new member joins a private Telegram group, the default is that they can see up to 100 previously sent messages. Private group owners can even configure a group so new members can see all messages sent before they joined. This message history feature means that when Anselm posts a message in a private Telegram group, and Bruce joins the group after Anselm posts the message, Bruce might see Anselm's message without Anselm having determined Bruce as a recipient of the message. In fact, Telegram does not enable group owners to configure a group so that new members only see messages posted after they joined. The most far-reaching restriction on message history possible within Telegram is that group owners can determine that new group members can see messages from up to only one day ago. In other words, new private group members on Telegram will always be able to see *some* messages posted before they joined, unless no one has posted anything recently.

107 Telegram's message history feature should be seen together with its other possibilities for access control. While new private chat group members on Telegram can always see some messages posted before they join, one could argue that if the sender of the information can control who accesses the group, they effectively still have control over the message's recipients and who views the information they shared. However, the default on Telegram is that each private group member can add new members. Therefore, in the default settings, the sender of a message cannot fully determine its recipients. For instance, when Anselm sends a message in a private

118 WhatsApp, 'Regulatory and Other Transparency Reports' <https://www.whatsapp.com/legal/transparencyreports> accessed 2 July 2025.

119 Art 24(2) DSA.

120 WhatsApp (n 115).

121 See section C.II.

chat group on Telegram, and Charlie decides to add Bruce to the group, then Bruce can view Anselm's message without Anselm having determined him as a recipient. Private group owners can disable members from adding new members, but in that case, Anselm would need to be the group owner to have control over his message's recipients. From this perspective, most private Telegram groups meet the online platform criterion that the sender of the information does not determine its recipients.

Can all recipients of the service easily access the information without manual access control?

108 If we look at the behaviour of invite links on Telegram, it could be argued that private chat groups on the app lack manual access control, which brings them close to being categorised as online platform services. When someone finds a private group through an invite link, the default setting on Telegram is that they only need to click "join" and are then automatically admitted.

109 However, private Telegram groups have another mode of access control, namely through their findability. Telegram users can only find private groups by being added to them or receiving an invite link. Telegram users cannot search for private groups via Telegram's search function. When someone is added to a group or sent an invite link, there is a clear "selection of whom to grant access". Therefore, information shared in private Telegram groups is *not* easily accessible to all Telegram users without manual access control. This would lead to the conclusion that, despite the conclusion under the first prong of "dissemination to the public", private Telegram groups cannot be categorised as online platforms. From that perspective, Telegram groups labelled as "private" are indeed private.

2. Public Group Chats

Does the sender of the information (not) determine its recipients?

110 When someone sends a message in a public group on Telegram, they arguably determine its recipients, namely all current group members. However, new group members on Telegram can always see its entire chat history. Furthermore, messages posted in public Telegram groups are visible both to group members and to Telegram users who open the group in the app without being a member. For these reasons, the sender of a message in a public Telegram group does not determine its recipients; there are always unknown new members who may see the message and unknown viewers who can see the message without being a group member.

Can all recipients of the service easily access the information without manual access control?

111 The findability and admission features of public chat groups on Telegram suggest that these groups do not have manual access control. Public Telegram groups are easy to find. Most importantly, Telegram users can find public groups through the in-app search function, next to being added to a public group, or receiving an invite link. Furthermore, Telegram's default setting is that anyone who finds a public group through Telegram's search function or an invite link and clicks "join" is automatically admitted. Public group owners cannot toggle on a setting such that Telegram users can only join the group after their approval. Telegram provides the setting "approve new members" for public groups. However, when this setting is toggled on, new members are still automatically admitted to the group after clicking "join" and can read the messages shared therein. In that case, the sole restriction is that new members can send messages in the group only after the group owner approves them. Thus, the easy findability and automatic admission to public Telegram groups means that all Telegram users can easily access the information shared in public groups without manual access control. Based on these considerations, public chat groups on Telegram can probably be qualified as online platform services and are correctly labelled "public".

3. Private Channels

Does the sender of the information (not) determine its recipients?

112 When the owner of a private channel on Telegram posts a message in the channel, it arguably determines the message's recipients, namely all the current followers of the channel. Messages posted in private channels on Telegram are also visible only to the channel's followers and not to anyone else, contrary to how, for instance, messages posted in public Telegram channels can even be viewed by people who don't have a Telegram account. From this perspective, one could argue that the sender of a message in a private Telegram channel determines its recipients. It would follow that private Telegram channels cannot be online platforms.

113 Contrary to private group chats on Telegram, the message history feature of private Telegram channels does not provide an argument that the sender of a message in such a channel does *not* determine its recipients. When Telegram users subscribe to a private channel, they can always see its entire message history. This message history feature means that when Anselm owns a private Telegram channel

and posts a message, and then Bruce subscribes to the channel, Bruce might see Anselm's message. However, only the owner of a private channel on Telegram can add new subscribers to their channel or access the invite link to send it to others. That means that only Anselm can determine who receives his messages sent in his channel, because, as the channel owner, formally he is the only one who can provide people access to the channel. From that perspective, despite the message history feature in private Telegram channels, the sender of information in such a channel still determines its recipients. The conclusion would be that private channels on Telegram cannot be online platforms.

114 Still, one more feature of private Telegram channels should be considered. Although subscribers of private Telegram channels cannot access a channel's invite link in the app menu to send it to others, if a subscriber has received an invite link from the channel owner as an invitation to join, this subscriber in practice has access to the invite link. And once having access to an invite link, nothing prevents channel subscribers from sharing it with other users to invite them to the private channel. Imagine that Anselm owns a private channel on Telegram and sends an invite link to Bruce. Thereafter, Bruce, who now has access to the invite link, forwards the link to Charlie, who then clicks "join", is automatically admitted (as is the default on Telegram), and consequently can see the channel's entire message history. In such a situation, Anselm did not determine Bruce as a recipient of his messages sent before the latter joined. If one accepts this reasoning, then private Telegram groups meet at least one condition of the definition of online platform.

Can all recipients of the service easily access the information without manual access control?

115 The discussion under the first prong of "dissemination to the public" is somewhat inconclusive, but the degree of manual access control for private channels on Telegram points to a clearer conclusion. The fact that only owners of private channels on Telegram can add new subscribers or access the invite link to send it to others means that such channels come with a form of manual access control. Even if a channel subscriber further shares an invite link without formally not being able to access the link through the app menu, there is manual access control. Therefore, similar to private group chats on Telegram, for private channels on Telegram, there is a "selection of whom to grant access". In other words, it is *not* the case that all Telegram users can easily access the information shared in private channels without manual access control. From this perspective, private channels on Telegram cannot be online platforms. Thus, the "private" label seems appropriate from a DSA perspective.

4. Public channels

Does the sender of the information (not) determine its recipients?

116 When the owner of a public channel on Telegram shares a message in the channel, it arguably determines the message's recipients, namely all the current followers of the channel. However, when a new subscriber joins a channel, they can see its entire message history. Furthermore, messages posted in public channels on Telegram are not only visible to the channel's subscribers; people who don't have a Telegram account and just open the channel via a link in their browser can see the contents of a channel too. These features mean that whenever a public channel owner sends a message in their channel, they do not determine all its recipients. With that, public channels on Telegram meet this part of the online platform concept.

Can all recipients of the service easily access the information without manual access control?

117 Similar to public group chats, the findability and admission features of public channels on Telegram suggest that they lack manual access control. Public Telegram channels are easy to find. People can discover public channels through Telegram's search function, be added to a public channel, or receive an invite link. Furthermore, when someone finds a public channel through Telegram's search function or an invite link, they can join and are automatically admitted. Owners of public Telegram channels can remove subscribers, which could be seen as a form of retroactive manual access control. However, until they are removed, new members can read all the contents of a public group. Furthermore, as just mentioned, messages posted in public channels on Telegram are also visible to people who don't have a Telegram account but just open the channel via a link in their browser. These features mean that all Telegram users can easily access the information shared in public channels, without manual access control.

118 Thus, it can be concluded that public channels on Telegram enable the dissemination of information to the public and are, hence, online platforms.

E. Features Giving Non-Platform Groups and Channels a Semi-Public Character

119 The analysis in section D has led to the conclusion that channels on WhatsApp and public group chats and channels on Telegram qualify as online platform

services. To the contrary, group chats on WhatsApp and private group chats and channels on Telegram are not online platform services. However, the functionalities of WhatsApp and Telegram that are not online platform services have features that give them a semi-public character. Nonetheless, this section argues that these features affording a degree of publicity to non-platform spaces in messaging apps do not lead to different conclusions under the current DSA.

I. Automatic Admission to a Group or Channel

120 Both on WhatsApp and Telegram, the default setting is that anyone who finds a group or channel and clicks "join" is automatically admitted. Since the DSA's preamble stipulates that "information should be considered to be disseminated to the public only where recipients of the service seeking to access the information are automatically registered or admitted", one could be inclined to conclude that automatic admission to a group or channel necessarily turns it into an online platform service.

121 However, as became clear through WhatsApp's and Telegram's analysis in the previous section, if automatic admission is paired with a lack of findability, a group or channel remains private. When a group or channel cannot be found via an in-app search interface, users of the service typically can only "find" the group or channel by being actively added or sent an invite link by an admin or member of the group or channel. In those cases, there is a "selection of whom to grant access", which means that, despite being automatic admission upon clicking "join", those groups or channels cannot be categorised as online platform services. Nonetheless, automatic admission gives groups or channels a semi-public character.

II. Chat Groups and Channels with Publicly Available Invite Links

122 Although chat groups on WhatsApp and private groups and channels on Telegram cannot be found via in-app search, these groups and channels come with invite links. On both apps, invite links are not created to invite one specific person and, thus, can be used by multiple people. Also, on both apps, the default setting is that once someone finds a link, they are automatically admitted to the group or channel after following it.

123 Nothing prevents admins of chat groups on WhatsApp and owners of private groups or channels on Telegram from sharing the invite links to their groups and channels publicly instead of sending them only to selected people. For instance, invite links can be shared on public channels within the same app or on social media like Reddit and Facebook. The BBC reported that links to private Telegram groups containing child sexual abuse material are indeed shared in public comments under YouTube videos.[122] Invite links to non-platform chat groups and channels are also publicly shared through online directories,[123] and most certainly also on the dark web. WhatsApp advises people to share invite links for groups only with "trusted individuals",[124] but it does not restrict people from publicly sharing invite links through technological solutions.

124 One could argue that when the invite link to an otherwise private chat group or channel is made publicly available, and the link provides automatic admission once someone clicks it, the chat group or channel itself becomes public too.[125] Notably, Telegram seems to follow a similar reasoning. Its FAQ for Channels states that "private channels with publicly available invite links will be treated in the same way as public channels, should it come to content disputes".[126] From that perspective, such private chat groups and channels may disseminate information to the public and actually be online platforms rather than spaces for private communication.

125 However, the idea that chat groups and channels may become online platforms based on how users share invite links creates an important problem. It would mean that messenger app providers must assess on a case-by-case basis which otherwise private chat groups and channels might be online platforms, and accordingly fulfil the DSA's due diligence obligations for online platforms concerning these spaces. Tuchtfeld argues for such a case-by-case analysis of chat groups or channels.[127] But, it seems practically unfeasible for messenger app providers to review for each otherwise private group chat or channel whether its invite link can also be found online, especially if those links are shared on public online spaces outside of the app.

122 BBC, 'Child Abuse Images Being Traded via Secure Apps' (19 February 2019) <https://www.bbc.com/news/technology-47279256> accessed 2 July 2025.

123 Lifewire, 'Discover WhatsApp Group Links Without Invites: A User's Guide' (2 June 2025) <https://www.lifewire.com/how-to-find-and-join-whatsapp-groups-4782103> accessed 2 July 2025.

124 WhatsApp, 'How to create and invite into a group' <https://faq.whatsapp.com/3242937609289432/> accessed 2 July 2025.

125 Tuchtfeld (n 18).

126 Telegram Channels FAQ (n 49).

127 Tuchtfeld (n 18).

126 The idea to consider whether invite links to chat groups and channels are publicly shared is also impractical in light of the ephemeral ways such links can be shared. Imagine that someone creates a private group on Telegram to share illegal content. They can then share the invite link to their private group in a public channel on Telegram, but remove that message after 24 hours, for instance, when the public channel starts to draw the attention of the authorities. After that, the group owner can continue to share the invite link on other public channels, playing a game in which the link is publicly available for a short time, removed again, and then publicly shared again elsewhere. Consequently, the private group would swing back and forth between fully private and semi-private, with a degree of public findability. Research shows that people indeed use Telegram to create fleeting and complex communication networks across which content in private groups or channels is made more publicly accessible.[128]

127 Another issue with the idea that groups or channels may become online platforms due to users publicly sharing invite links is that some of these groups or channels are not hosting services – an essential element of the DSA's definition of "online platform". For instance, as section D.I.1 concluded, all chat groups on WhatsApp are mere conduit or caching services and not hosting services. Therefore, these chat groups cannot be online platform services either, regardless of how WhatsApp group invite links work and are spread online.

128 Finally, the possibility that otherwise private groups or channels can turn into online platforms when users publicly share their invite links seems to conflict with the DSA's preamble stipulation that the dissemination to the public should not require "further action by the recipient of the service providing the information". It could be argued that such further action includes making the extra effort to publicly share an invite link.

129 In summary, there are multiple practical and legal reasons not to take into account whether users publicly share invite links to otherwise private groups or channels when deciding whether those groups and channels are online platform services. Nonetheless, it should be emphasised that this feature gives such otherwise private groups and channels a semi-public character.

III. Chat Groups and Channels With Large Numbers of Users

130 Chat groups on WhatsApp can have 1024 members, and chat groups on Telegram can even have 200.000 members. And on both apps, channels can have an unlimited number of followers (called "subscribers" on Telegram), which can lead to a large number of followers too. Note that we have already concluded that all WhatsApp channels are online platform services, so the following concerns specifically private chat groups and channels on Telegram and chat groups on WhatsApp.

131 If an otherwise private chat group has 1024 or even up to 200.000 members, or an otherwise private channel a very large number of subscribers due to the absence of a limit on its subscriber count, one can question whether communication in such groups or channels is still truly private.[129] In a chat group of 1024 members, many members probably do not know each other in real life and cannot trust whether the messages they share will be kept confidential by other members.[130] This argument is even stronger for chat groups of up to 200.000 members, or channels with a very large number of subscribers. One could argue that in such online spaces on messaging apps, users cannot expect confidentiality of communications and that sharing information in such spaces is similar to sharing it in public online spaces. Therefore, one could question whether otherwise private chat groups with large numbers of members or private channels with large number of subscribers due to an absence of a limit on their subscriber count should qualify as online platform services.

132 On first view, private channels with an unlimited number of subscribers seem to meet the element of the DSA's concept of "online platform" that information is disseminated "to a potentially unlimited number of third parties". However, as explained in section B.II of this paper, "unlimited" refers to access control, namely whether people can automatically join an online space where information is hosted, or whether there is manual access control on admission to such a space. While private channels on Telegram can have a numerically

128 Johua Fisher-Birch, 'Half Measures to Remove Neo-Nazi Telegram Channels Do Not Work' (*Counter Extremism Project*, 23 June 2021) <https://www.counterextremism.com/blog/half-measures-remove-neo-nazi-telegram-channels-do-not-work> accessed 2 July 2025; Van Raemdonck and Pierson (n 76).

129 Christian Schwieter, 'Online Safety Regulation & Private Online Communications: The State of Play and Ways Ahead for Addressing Terrorism, Extremism, Hate, and Disinformation' (Institute for Strategic Dialogue 2025) 8 <https://www.isdglobal.org/wp-content/uploads/2025/02/Online-Safety-Regulation-and-Private-Online-Communications-State-of-Play.pdf> accessed 2 July 2025.

130 With thanks to Emma Bree for prompting me to reflect on confidentiality of communications in this context.

unlimited number of followers, the fact that there is a selection of whom to provide access (see section D.II.3) means that their number of followers is not unlimited in terms of access control.

133 Regarding private chat groups with large numbers of members, such as 200.000 on Telegram, it should be emphasised that the absolute number of people who can access information on a hosting service is not an element of the DSA's definition of "online platform". Instead, the DSA conceptualises online platforms as hosting services enabling the dissemination of information to a "potentially unlimited number of third parties". One could argue that private chat groups of up to 200.000 members in practice have an unlimited number of members. Still, as just reiterated, the *unlimited* in this element of the online platform concept refers to unlimited in terms of access control. And due to WhatsApp's and Telegram's lack of findability of private chat groups and channels, there formally is a "selection of whom to grant access" even in very large groups or channels. Wagner has drawn a similar conclusion about private chat groups on Telegram. She argues that private Telegram groups do not qualify as online platform services under the DSA, "unabhängig von der Gruppengröße" (regardless of their group size).[131]

134 In conclusion, when a chat group or channel is private in most respects but has a large number of members or subscribers, this does not turn the group or channel into an online platform service. Nonetheless, it remains the case that private chat groups or channels with a large number of members or subscribers have a semi-public character.

F. Conclusion

135 This paper has asked two research questions: First, are WhatsApp's and Telegram's group chat and channel functionalities mere conduit, caching, or hosting services within the meaning of the DSA? Second, are WhatsApp and Telegram's functionalities that qualify as hosting services also online platform services within the meaning of the DSA?

136 WhatsApp's analysis concerned its group chats and channels. The analysis has shown that WhatsApp group chats are mere conduit or sometimes caching services but never hosting services. Therefore, WhatsApp group chats cannot be online platform services. To the contrary, WhatsApp channels are hosting services and also qualify as online platform services, which WhatsApp also seems to have concluded for themselves.

137 Telegram's analysis has focused on four parts of the app: private and public group chats and private and public channels. All these functionalities on Telegram are hosting services. Furthermore, public group chats and public channels on Telegram also qualify as online platform services. However, private chat groups and channels on Telegram are not online platform services within the meaning of the DSA.

138 In WhatsApp's and Telegram's analysis, the following features have been found relevant when applying the DSA's intermediary services concepts, including the concept of "online platform": the findability of chat groups and channels, the behaviour of invite links, the admission settings, message visibility, message history, and storage. It turns out that it is usually a combination of different features that leads to the categorisation of online platform and that just one feature giving a degree of publicity is usually not enough to categorise a hosting service as an online platform. For instance, WhatsApp channels are online platform services because a channel can be found through in-app search, clicking "follow" gives automatic admission, and new channel followers can see updates of up to 30 days ago. Furthermore, it turns out that a hosting service sometimes has both private and public dimensions, without qualifying as an online platform. For instance, private group chats on Telegram are private in the sense that they lack findability through in-app search, although they are relatively public in the sense that the default setting is automatic admission, they can have very large numbers of members, and new members can see some messages sent before joining.

139 The conclusion that WhatsApp and Telegram both offer functionalities that qualify as online platform services but also still services that are more classic private messaging services aligns with observations by media scholars that messaging apps are blurring the distinction between private messaging and social media.[132] Legal scholars have also talked of "hybrid services" in this context.[133] Nonetheless, while certain parts of WhatsApp and Telegram are online platform services, typical social media often algorithmically order content posted by their users, while the messaging apps analysed in this paper show user-generated content in groups and channels chronologically.[134] At the same time, messaging apps are not entirely void of algorithmic recommendations, since both WhatsApp and Telegram recommend channels to follow to their

131 Wagner (n 18) 127.

132 Jo Pierson, 'Digital Platforms as Entangled Infrastructures: Addressing Public Values and Trust in Messaging Apps' (2021) 36 European Journal of Communication 349.

133 Husovec, 'Introduction to Accountability Framework' (n 36).

134 Van Raemdonck and Pierson (n 76).

users.[135]

140 The paper has also reflected on the relevance of three specific features of messaging apps' functionalities and what these features mean for the DSA's application. The paper has concluded that chat groups and channels with automatic admission are not necessarily online platform services, despite certain text in the DSA's preamble pointing in that direction. Furthermore, chat groups and channels that are otherwise not online platform services, sometimes cannot and otherwise should not become online platforms if their invite links are publicly available. Finally, the fact that some chat groups or channels have large numbers of members or subscribers does not necessarily turn them into online platform services. In this, it is important to underline that non-hosting services can never qualify as online platforms, despite the semi-public character they may have.

141 The conclusion that private group chats and channels with automatic admission, a very large number of members or subscribers, or publicly available invite links are not online platforms is problematic given their semi-public character and the public harms these online spaces can cause. In other words, the DSA has a gap regarding online spaces on messaging apps that cannot qualify as online platforms, while having features that give them at least a semi-public character. Note that this paper specifically analyses WhatsApp and Telegram; it could be that other messaging apps have functionalities with different features that give them a semi-public character without bringing them within the scope of the DSA's concept of "online platform".

142 While the DSA imposes some due diligence obligations on intermediary services in general, with some more obligations for hosting services, it imposes an important set of further due diligence obligations on online platforms. Among other things, online platforms must have internal complaint-handling systems where users can submit complaints against decisions taken by the service.[136] These internal complaint-handling systems must enable, among other things, complaints about decisions regarding whether or not to remove certain content.[137] The opportunity to complain about the decision *not* to remove certain content is specifically useful for users or entities that have submitted a notice about illegal content which harms them or society more broadly. Online platforms must also ensure that notices submitted by trusted flaggers are given priority and are decided upon without undue delay,[138] and suspend users who frequently provide manifestly illegal content.[139] These, and the other due diligence obligations specifically for online platforms, are not mandated for private group chats and channels on messaging apps.

143 Moreover, when private chat groups and channels are not online platform services, they can also not be very large online platform services. The DSA imposes the heaviest due diligence obligations on these largest players, such as the obligation to identify and mitigate the systemic risks stemming from their service.[140] While it is too early to conclude whether the risk management framework is successful, it has the potential to significantly impact how very large online platforms address illegal and harmful content.[141] WhatsApp Channels since recently qualifies as a very large online platform service due to its number of monthly active users in the EU.[142] It is not unlikely that the non-platform but semi-public parts of WhatsApp, namely its largest group chats combined, may have an amount of monthly active users in the EU that would otherwise qualify them as very large online platform. Likewise, it is not unlikely that the non-platform but semi-public parts of Telegram, namely some of its private group chats and channels, have an amount of monthly active users in the EU that would otherwise qualify them as very large online platforms, especially when combined with the true platform parts of Telegram. That is to say, if the user numbers of the semi-public spaces are very large, it can be questioned whether the DSA's rationale of imposing heavier due diligence obligations upon the largest service providers because they pose the largest societal risks should also be applied to these semi-public spaces.

144 Further research should reflect on possible solutions to the DSA's gap regarding private group chats and channels on messaging apps with a semi-public character. It should be emphasised that any solution should ensure that truly private messaging functionalities will not qualify as online platform services, and are not subjected to content moderation or other third-party interventions. Confidentiality of communications is a key democratic value.[143]

135 WhatsApp, 'About how WhatsApp recommends channels' <https://faq.whatsapp.com/962978635456336> accessed 2 July 2025; Telegram User guidance for the EU Digital Services Act (n 50).

136 Art 20 DSA.

137 Art 20(1)(a) DSA.

138 Art 22 DSA.

139 Art 23 DSA.

140 Arts 34 and 35 DSA.

141 Niklas Eder, 'Making Systemic Risk Assessments Work: How the DSA Creates a Virtuous Loop to Address the Societal Harms of Content Moderation' (2024) 25 German Law Journal 1197.

142 See section D.I.2.

143 Frederik J Zuiderveen Borgesius and Wilfred Steenbruggen, 'The Right to Communications Confidentiality in Europe: Protecting Privacy, Freedom of Expression, and Trust'

The DSA's view that interpersonal communication services, including messaging apps, in principle cannot be online platforms,[144] is justified in light of confidentiality of communications and broader privacy concerns.[145] If lawmakers want to address this gap in the DSA, a solution should be found which precisely targets private group chats and channels that are a societal problem due to their semi-public character, despite them not qualifying as online platforms. That is to say, this paper is not arguing for further going due diligence obligations, or voluntary content moderation, in the truly private spaces of messaging apps. This paper only problematises those private spaces that have a semi-public character.

145 In trying to find a solution, a key question is: when can users of messaging apps no longer reasonably expect confidentiality of communications? In other words, at which point is it justifiable that an online space for communication is seen as "public" and that, consequently, content moderation and other forms of monitoring by the service provider are justified? And, can the law possibly draw clear demarcation lines between public and private spaces online, so that the application of the law is predictable for service providers, authorities, and users? The fact that the difference between private and public communication is fluent in practice, makes such legal demarcation lines difficult.

146 Finally, many other questions about messaging apps and the DSA's intermediary concepts should be researched. For instance, an app like Telegram is highly customisable. Chat group and channel owners on Telegram can change many of Telegram's default settings, such as whether someone who clicks on an invite link is automatically admitted or whether members of chat groups can also add new members. What happens to a group or channel's categorisation under the DSA when its owner changes a default setting relevant to the DSA's concept of "online platform"? Furthermore, many messaging apps these days have functionalities resembling Stories on Instagram. How should these "story-like" functionalities be categorised from the perspective of the DSA?

147 These further research questions underline an important implication of this paper: any distinction that the law makes between private and public online spaces will most likely leave grey areas with both private and public dimensions. A clear distinction between private and public online space will probably always be a legal fiction.

(2019) 20 Theoretical Inquiries in Law <http://www7.tau.ac.il/ojs/index.php/til/article/view/1616>.

144 Rec 14 DSA.

145 Griffin makes the same argument about the NetzDG's scope, which excludes private messaging services, see Rachel Griffin, 'New School Speech Regulation as a Regulatory Strategy against Hate Speech on Social Media: The Case of Germany's NetzDG' (2022) 46 Telecommunications Policy <https://www.sciencedirect.com/science/article/pii/S0308596122001136>.

EU Copyright Law, Artificial Intelligence and 'Transformative Use' of Works: The Case of 3D Reconstruction

by **Theodoros Chiou and Leander Stähler ***

Abstract: Artificial intelligence (AI) has virtually upended many relevant aspects of EU copyright law. In parallel, three-dimensional (3D) visual content is predicted to be a key contributing factor to the development of new forms of immersive content, much of which is powered by new AI-driven tools. AI-based '3D reconstruction' techniques are unique because, among others, they may autonomously generate an individual piece of 3D visual content, based on specific 2D visual content used as an input. This raises particular copyright questions regarding the copyright-relevant uses of such techniques.

This contribution analyses these forms of use, and the extent to which the acts performed on underlying 2D visual content as training material are copyright-relevant under EU copyright law. In particular, the analysis specifically tackles how those uses interfere with the exclusive right of reproduction, its exceptions and limitations at the input stage, and whether a relation of derivation between 2D and 3D content may be established at the output stage. We highlight avenues through which the training and implementation of 3D reconstruction techniques may in fact not be copyright-relevant and analyse the possibilities through which the implementation of 3D reconstruction techniques may qualify as a form of 'transformative use' of 2D visual content, including whether this can be subject to exceptions and limitations.

Keywords: EU Copyright Law, Extended Reality (XR), 3D Reconstruction, Right of Adaptation, Transformative Use, 3D Content, AI-Generated Content, Text and Data Mining (TDM), Pastiche

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A. Introduction [1]

1 Three-dimensional (3D) visual content in various forms is predicted to be a key contributing factor to the development of new forms of immersive content.[2] This is especially the case in the context

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1 This paper was first presented by the authors at the European Policy in Intellectual Property (EPIP) Annual Conference on 11 September 2024 at Sant'Anna School for Advanced Studies, Pisa, Italy. The authors are thankful for the feedback received by attendees of the session on "AI in the cultural and creative industries (CCSIs): which policy options?". We also acknowledge the detailed technical knowledge kindly shared by Antonis Karakottas, Research associate at the Information Technologies Institute (ITI) - Centre for Research & Technology Hellas (CERTH). This research has received funding from XReco, XReco is a Horizon Europe Innovation Project co-financed by the EC under Grant Agreement ID: 101070250. The paper elaborates and expands the XReco research findings contained in W. Bailer & M. Pegia & S. Samaras & S. Diplaris & A. Karakottas & H. Neuschmied & C. Marinho & A. Calvo & R. Ramiro & M. Montagnuolo & Th. Chiou & L. Stähler, Data sharing infrastructure, neural content description, rights management and monetisation v1, XReco Deliverable 3.1. (9 February 2024), available at: <https://xreco.eu/wp-content/uploads/2024/02/XReco-Delivarable-3.1.pdf>. The drafting of Sections B and D was undertaken by Leander Stähler and the drafting of Section C was undertaken by Theodoros Chiou. The Introduction and Conclusion were jointly drafted.

2 The significance of new three-dimensional content is *inter*

of extended reality (XR) applications which connect virtual reality (VR)[3] and augmented reality (AR).[4] Indeed, digital 3D visual content is essential for XR applications,[5] such as XR experiences, immersive works, or "virtual worlds", also referred to as "metaverses",[6] among others. At the same time, 3D visual content bears its own self-standing value. For instance, 3D models are digital assets that underpin 3D printing technology, whereas 3D assets are at the forefront of conservation and valuation strategies in the cultural heritage sector.[7]

2 While many novel applications for 3D visual content, especially in the context of XR,[8] are at an emerging stage, copyright law remains in application to the 3D visual content fuelling them, including where AI technologies are involved in the generation of such content. Copyright thus plays a crucial role in determining what rights subsist in 3D visual content, who can benefit from use or exploitation of content, and how the content can be further managed and exploited. Indeed, particular copyright issues may arise especially when the generation of 3D content is based on pre-existing 2D content and relies on technologies involving the use of AI, also referred to as '3D reconstruction techniques'. This contribution therefore analyses the main EU copyright law implications in the AI-based generation of 3D visual content by means of 3D reconstruction techniques.

3 3D reconstruction techniques (3DRTs) are generally capable of generating a piece of 3D visual content by way of extracting certain data points from a set of pre-existing 2D visual content. Such 3D visual content can digitally represent a vast range of real-world objects (e.g. buildings, monuments, persons etc). Especially in the context of advancements at the intersection of computer vision and artificial intelligence, including artificial neural networks, novel 3DRTs, such as neural radiance fields (NeRFs) and Gaussian splatting, are emerging as means of AI-generating 3D visual content.[9] Indeed, AI applications that are using such techniques are capable of generating 3D visual content as AI-generated 3D output, when 'prompted' with a small number of 2D inputs, without requiring sophisticated equipment or expertise from the user side (Figure 1). For instance, a few photos of the Brandenburg Gate in Berlin can be used as input in order to generate a 3D visual version thereof by means of NeRF-In-The-Wild technique.[10]

alia addressed by the common European data space for cultural heritage (Commission Recommendation 2021/1970 of 10.11.2021 on a common European data space for cultural heritage C(2021) 7953 final, Recital 11): "3D technologies may also provide increased opportunities for cultural heritage institutions to reach wider audiences with more immersive experiences that include virtual access to places which are normally inaccessible (e.g. underwater) or temporarily closed, or to reach persons with visual impairments by offering, for example, accessible tactile experiences"; cf. Europeana, 'Common European data space for cultural heritage - annual report 2023 – 2024: Deployment of a common European data space for cultural heritage' (*Europeana*, 2 December 2024) <https://pro.europeana.eu/post/common-european-data-space-for-cultural-heritage-annual-report-2023-2024>, accessed 11 August 2025.

3 "A computer-generated simulation of a lifelike environment that can be interacted with in a seemingly real or physical way by a person, esp. by means of responsive hardware such as a visor with screen or gloves with sensors" (*Oxford English Dictionary*, s.v. "virtual reality (*n.*)" December 2024, <https://doi.org/10.1093/OED/1042597194> accessed 13 August 2025).

4 "The addition of computer-generated output, such as images or sound, to a person's view or experience of his or her physical surroundings by means of any of various electronic devices" (*Oxford English Dictionary*, s.v. "augmented reality (*n.*)" September 2024, <https://doi.org/10.1093/OED/1035175074> accessed 13 August 2025); applications drawing upon features from both are referred to as 'mixed reality' (MR; "A medium consisting of immersive computer generated environments in which elements of a physical and virtual environment are combined." (*Oxford English Dictionary*, s.v. "mixed reality (*n.*)" March 2025, <https://doi.org/10.1093/OED/8217707338> accessed 13 August 2025)).

5 See e.g. Theodoros Chiou, Licensing the Creation and Dissemination of XR Content through XReco (XReco Blog, 27 May 2024) <https://xreco.eu/licensing-the-creation-and-dissemination-of-xr-content-through-xreco/> accessed 11 August 2025.

6 On the concept of metaverse see, among others: Isabelle Hupont Torres and others, 'Next Generation Virtual Worlds: Societal, Technological, Economic and Policy Challenges for the EU' (Publications Office of the European Union 2023), 12; Péter Mezei & Gunjan Chawla Arora, 'Copyright and Metaverse' in Michel Cannarsa and Larry Alan Di Matteo (eds), Research Handbook on Metaverse and the Law (Edward Elgar 2024) <https://ssrn.com/abstract=4444608> accessed 11 August 2025, 1.

7 Recitals 9 and 11 Commission Recommendation (EU) 2021/1970 of 10 November 2021 on a common European data space for cultural heritage [2021] OJ L 401/5.

8 The range of potential applications is vast, covering *inter alia* education, health, tourism, cultural heritage, and manufacturing (Isabelle Hupont Torres and others, 'Next Generation Virtual Worlds: Societal, Technological, Economic and Policy Challenges for the EU' (Publications Office of the European Union 2023), 17-31).

9 Ben Mildenhall and others, 'NeRF: Representing Scenes as Neural Radiance Fields for View Synthesis' (arXiv, 3 August 2020) https://arxiv.org/abs/2003.08934 accessed 13 August 2025; Bernhard Kerbl and others, '3D Gaussian Splatting for Real-Time Radiance Field Rendering' (2023) 42 ACM Transactions on Graphics, 1.

10 This is demonstrated at: XReco, '(3D Object) Reconstruction' (*XReco*) <https://xreco.eu/technologies/technologies-3d-object-reconstruction/> accessed 11 August 2025.

4 3DRTs such as those described above mainly involve a set of acts performed on the 2D content as an input during the process, so that a 3D output (3D visual content) is produced. Nevertheless, they can be quite heterogeneous in regard to how the 3D reconstruction technique itself was produced, and what aspects of AI the technique integrates. Some 3DRTs may require independent 'training'[11] and/or the integration of certain technologies that have already been trained.[12] Others may not require this and are readily implementable, akin to well-known Generative AI models.[13] Importantly, however, all 3DRTs – as a specific application of AI techniques – generally 'train' (i.e. generate) a 3D output based on (a set of) specific inputs, i.e. 2D visual content. This should not be confused with the broader phenomenon of 'AI training' as such, but reflects the current term of art in the field of computer vision research.[14] This means that, depending on the features of a given 3DRT, there may be differences concerning the prior training requirements or the implementation requirements at stake. Ultimately, however, the field of such 3DRTs is increasingly diverse, depending also on the needs of individual developers: a visual demonstration of this process from 2D content to manipulatable 3D output is ideal for providing an intuitive notion of such techniques.[15] In general terms, an overview of the implementation of 3DRTs is provided in Figure 1 below.

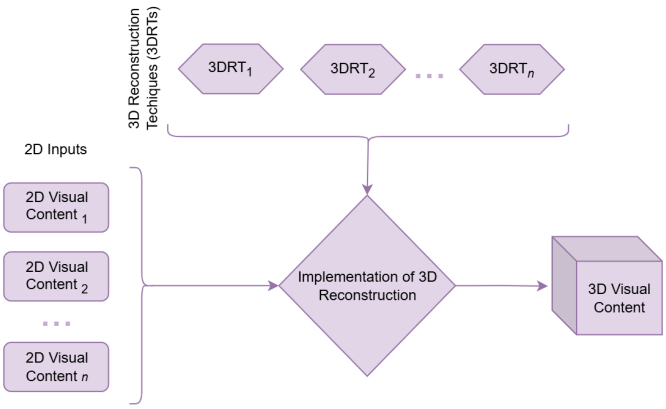

Figure 1: 3D visual content generation by means of 3D Reconstruction Techniques

5 3DRTs and their implementation raise fundamental questions for the EU copyright *acquis*. The use of pre-existing 2D visual content as input/training data may involve the use of protected forms of expression, which raises additional concerns about the relation between 2D content that is used as input and generated 3D content (output). Indeed, on the one hand, a direct and unique connection between the selected 2D inputs and the 3D outputs may be reported, given that the generated 3D content is necessarily (and exclusively) based on that particular 2D content that is used as training data for the training of the 3D reconstruction technique and/or of the AI model. On the other hand, 3D reconstruction involves what can be described as 'dimension shifting', i.e. the rendition of represented objects within the pre-existing 2D content in a visual format featuring an additional dimension. The passage from two to three dimensions involves addition of aspects, views, angles, perspectives with regard to 2D inputs.

6 This raises a set of essential legal questions for assessing the status of rights in the generated 3D content by means of 3DRTs and the legality of their implementation that critically affects the rights management of actors that generate, disseminate or use such 3D content. In light of EU policy, which aims to promote the production and use of 3D and XR media content,[16] especially in the context of

11 Cf. Kalyan Vasudev Alwala, Abhinav Gupta and Shubham Tulsiani, 'Pre-Train, Self-Train, Distill: A Simple Recipe for Supersizing 3D Reconstruction' (*CVF*, 2022) <https://openaccess.thecvf.com/content/CVPR2022/html/Alwala_Pre-Train_Self-Train_Distill_A_Simple_Recipe_for_Supersizing_3D_Reconstruction_CVPR_2022_paper.html> accessed 11 August 2025.

12 For instance, some proposed techniques would harness the use of deep learning methods to achieve better results (cf. Taha Samavati and Mohsen Soryani, 'Deep Learning-Based 3D Reconstruction: A Survey' (2023) 56 Artificial Intelligence Review 9175).

13 This is typically the case for NeRF (cf. Wenhui Xiao and others, 'Neural Radiance Fields for the Real World: A Survey' (arXiv, 22 January 2025)); cf. Instant-3D approaches, see Li S and others, 'Instant-3D: Instant Neural Radiance Field Training Towards On-Device AR/VR 3D Reconstruction', *Proceedings of the 50th Annual International Symposium on Computer Architecture* (Association for Computing Machinery 2023) <https://dl.acm.org/doi/10.1145/3579371.3589115> accessed 11 August 2025.

14 Based on this, but immaterial for the analysis conducted here, each 3D output can also be understood to comprise an independent 'AI model' that is generated based on specific 2D inputs.

15 Various videos are publicly-available on online platforms addressing 'NeRF' or 'Gaussian Splatting' techniques, cf. 'NeRF in the Wild: Neural Radiance Fields for Unconstrained Photo Collections [Updated]' (Directed by NeRF-W, 2021) <https://www.youtube.com/watch?v=mRAKVQj5LRA> accessed 11 August 2025.

16 Commission, 'An EU initiative on Web 4.0 and virtual worlds: a head start in the next technological transition' COM(2023) 442 final; see also the European Commission pilot project WEB4HUB 'WEB4HUB: A Space for the Metaverse – Virtual World and the Transition to Web 4.0 | Shaping Europe's Digital Future' <https://digital-strategy.ec.europa.eu/en/

establishing common European data spaces,[17] it is urgent to consider how the existent EU copyright framework addresses the operation of such 3DRTs and what legal implications (including copyright infringement) affecting the generation and use of 3D content, are stemming from the rights over the pre-existing 2D content. The intersection between copyright law and artificial intelligence development and use has been elaborately discussed and continue to be on the forefront of discussions in light of ongoing developments in legal scholarship,[18] yet literature regarding such specific forms of 3DRTs is practically non-existent,[19] including in the literature focusing on 3D visual content[20] and on the interface between copyright and the 'metaverse'.[21]

7 This paper therefore focuses on essential copyright law questions that lie between input and output considerations of 3DRTs. More precisely, it seeks to investigate the copyright law implications over AI training for 3D reconstruction purposes and to clarify whether the generation of a real-world 3D object through 3DRTs constitutes a type of 'transformative use' of the employed 2D content/inputs, which possibly implies a form of 'derivation' between 2D and 3D. Accordingly, it addresses the

policies/web4hub> accessed 11 August 2025.

17 Common European data spaces for cultural heritage and for media (Commission, 'Commission Staff Working Document on Common European Data Spaces' SWD(2024) 21 final); Commission Recommendation (EU) 2021/1970.

18 Among the vast literature, see indicatively regarding copyright concerns of inputs to train AI: Begoña Gonzalez Otero, 'Machine Learning Models Under the Copyright Microscope: Is EU Copyright Fit for Purpose?' (2021) 70 GRUR International 1043; Eleonora Rosati, 'Copyright as an Obstacle or an Enabler? A European Perspective on Text and Data Mining and Its Role in the Development of AI Creativity' (2019) 27 Asia Pacific Law Review 198; Thomas Margoni and Martin Kretschmer, 'A Deeper Look into the EU Text and Data Mining Exceptions: Harmonisation, Data Ownership, and the Future of Technology' (2022) 71 GRUR International 685; Theodoros Chiou, 'Copyright Lessons on Machine Learning: What Impact on Algorithmic Art?' (2019) 10 JIPITEC 398; European Commission and others, 'Study on Copyright and New Technologies: Copyright Data Management and Artificial Intelligence' (Publications Office of the European Union 2022) <https://data.europa.eu/doi/10.2759/570559> accessed 11 August 2025. Regarding ownership questions of AI and AI outputs: Juha Vesala, 'Developing Artificial Intelligence-Based Content Creation: Are EU Copyright and Antitrust Law Fit for Purpose?' (2023) 54 IIC - International Review of Intellectual Property and Competition Law 351; Christina Varytimidou, 'The New A(I)Rt Movement and Its Copyright Protection: Immoral or E-Moral?' (2023) 72 GRUR International 357; P Bernt Hugenholtz and João Pedro Quintais, 'Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?' (2021) 52 IIC - International Review of Intellectual Property and Competition Law 1190. Regarding questions of copyright liability for AI systems: Eleonora Rosati, 'Infringing AI: Liability for AI-generated outputs under international, EU, and UK copyright law' (2024) 16 European Journal of Risk Regulation 603; Daniel Gervais and others, 'The Heart of the Matter: Copyright, AI Training, and LLMs' (2024) 71 Journal of the Copyright Society 482; Kacper Szkalej, 'Copyright Liability and Generative AI: What's the Way Forward?' (2025) Nordiskt Immateriellt Rättskydd 92. Regarding the impact of the EU AI Act on copyright law: João Pedro Quintais, 'Generative AI, Copyright and the AI Act' (2025) 56 Computer Law & Security Review 106107; Alexander Peukert, 'Copyright in the Artificial Intelligence Act – A Primer' (2024) 73 GRUR International 497.

19 See Cristiana Sappa, 'Participating in Cultural Life via Augmented Reality on Cultural Goods: What Role forCopyright?' (2022) 71 GRUR International 618; Stef van Gompel and Bartolomeo Meletti, 'Code of Best Practices on Creative Reuse for Immersive Experiences' (2022) <https://zenodo.org/record/7180861> accessed 11 August 2025; although research in digital humanities has also stressed legal concerns regarding 3D (Sander Muenster, 'Digital 3D Technologies for Humanities Research and Education: An Overview' (2022) 12 Applied Sciences 2426); a similar issue is discussed concerning the digitisation of cultural heritage in: Thomas Margoni, 'The Digitisation of Cultural Heritage: Originality, Derivative Works and (Non) Original Photographs' (2014) SSRN <http://www.ssrn.com/abstract=2573104> accessed 11 August 2025; cf. Andrea Wallace and Ellen Euler, 'Revisiting Access to Cultural Heritage in the Public Domain: EU and International Developments' (2020) 51 IIC - International Review of Intellectual Property and Competition Law, 823.

20 Thomas Margoni, 'CC-PlusDesign.Eu—Or How to Apply Creative Commons Licences to 3D Printed Products in the Light of the Most Recent Developments of the European Court of Justice Case Law' in Bibi van den Berg, Simone van der Hof and Eleni Kosta (eds), *3D Printing: Legal, Philosophical and Economic Dimensions* (TMC Asser Press 2016); Pinar Oruç, '3D Digitisation of Cultural Heritage Copyright Implications of the Methods, Purposes and Collaboration' (2020) 11 Journal of Intellectual Property, Information Technology and Electronic Commerce Law, 149; Mikko Antikainen, 'Differences in Immaterial Details: Dimensional Conversion and Its Implications for Protecting Digital Designs Under EU Design Law' (2021) 52 IIC - International Review of Intellectual Property and Competition Law, 137.

21 See e.g. Péter Mezei & Chawla Arora, n6; Michaela MacDonald, 'The Intersection between IP and the Metaverse: Preliminary Observations' (Queen Mary Law Research Paper No. 397/2023, January 26, 2023) <https://ssrn.com/abstract=4338884> accessed 11 August 2025; Gaetano Dimita and others, 'IP and Metaverse(S) - an Externally Commissioned Research Report' (Queen Mary Law Research Paper No. 427/2024, February 2024)<https://ssrn.com/abstract=4756583> accessed 11 August 2025, 18 and 44-45.

following research question: **To what extent is the use of pre-existing 2D visual content – as the basis for generating 3D visual content in the 3D reconstruction context – a copyright-relevant ('transformative') use interfering with the exclusive right of reproduction under EU copyright law?**

8 In view of answering this question, copyright-relevant use of pre-existing 2D content during the training of a 3DRT is assessed first (section B). Section C examines the case of non-copyright-relevant rendition of 2D inputs in 3D outputs. For cases where the rendition of 2D inputs may be copyright relevant, Section D analyses the applicability of exceptions and limitations with regard to copyright-relevant 'transformative uses' of 2D inputs within 3D output. Section E concludes.

9 For the purposes of this paper, 2D content is understood to cover *visual* content, broadly comprising images, photographs and frames of a video depicting real-world objects. The material scope of this analysis is EU law addressing copyright and related rights – also referred to as the copyright *acquis*. More specifically, we focus here on the economic right of reproduction.[22] For the purposes of this copyright law analysis, we assume that 2D content used as input enjoys copyright protection. Moreover, this paper does not cover legal issues related to the possible use of a copyrighted or otherwise protected object represented in that 2D visual content.[23] Last, the investigation does not tackle the question of the protectability of the 3D output as such.

10 Regarding the lens of 'transformative use' used here, it should be noted that the EU copyright *acquis* does not recognise a singular concept thereof.[24] In legal scholarship, there have been attempts to connect various forms of use through the idea of being transformative, generally focusing on protected uses for which some form of authorisation is required under the copyright *acquis*.[25] This is relevant for most cases where the non-owner of a given piece of 2D visual content wishes to "transform" the content digitally and make use of it for their own purposes. In that sense, for the purposes of the present paper, we can understand a 'transformative use' of 2D visual content in its literal meaning, encompassing any act performed upon or reuse of a pre-existing 2D visual content that aims at the generation of a new 3D visual output.

B. 2D Inputs and the 'training' of 3D Reconstruction Techniques

I. Overview of the Technical and Legal Background

11 3DRTs are unlike many existing and dominant Generative AI tools. Each piece of 3D visual content generated by the implementation of a 3DRT can effectively be considered as a self-standing 'AI model'[26] that results from training based on 2D inputs.[27] This is true for tools based on the 'NeRF' approach, as well as for those based on more recent 'Gaussian splatting' approaches.[28] There may be

22 Albeit in the context of the certain exceptions and limitations discussed in Section D, the right of communication to the public and the right of making available to the public may also be relevant.

23 This is not intended to prejudice the potential role such rights may play e.g. in the generation of the 2D visual asset in the first place; due to the focus on 2D visual content, the right of extraction in the context of the *sui generis* database right is not addressed here.

24 The word choice of "transformative" is arguably derived from US copyright law and practice, especially as it plays a part in the analysis of the fair use defence; cf. 17 US Code § 107. Its use in this paper is not connected with this concept. Cf. Martin Senftleben 'Bridging the Differences Between Copyright's Legal Traditions—The Emerging EC Fair Use Doctrine' (2010) 57 J Copyright Society USA 521; regarding whether recent technological developments require a new approach, see: Enrico Bonadio, Nicola Lucchi and Giuseppe Mazziotti, 'Will Technology-Aided Creativity Force Us to Rethink Copyright's Fundamentals? Highlights from the Platform Economy and Artificial Intelligence' (2022) 53 IIC - International Review of Intellectual Property and Competition Law 1174.

25 Defining 'transformative use' as "encompassing all derivative creations based on pre-existing works without authorization of the author of the original work, whether they are protected by copyright or not" (Julien Cabay and Maxime Lambrecht, 'Remix Prohibited: How Rigid EU Copyright Laws Inhibit Creativity' (2015) 10 Journal of Intellectual Property Law & Practice 359, 360).

26 I.e. "physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, process or data" (Save general-purpose AI models, AI models have not been legally defined in EU law; the working definition here is drawn from International Organization for Standardization (ISO) definition of 'model' in the AI context (International Organisation for Standardisation, 'ISO/IEC 18023-1:2006 – Information technology' (*ISO*, 2021), 3.1.11)).

27 'AI model' is chosen deliberately as a term of art in the context of 3D reconstruction, but also to distinguish it from the notion of 'AI system' as regulated by the EU AI Act (Art3(1) AI Act). This self-standing AI model generally does not comprise a 'general-purpose AI model' as these do not display significant generality and do not perform a wide range of tasks (cf. Art3(63) AI Act).

28 Guikun Chen and Wenguan Wang, 'A Survey on 3D

variations as to the level of 'supervision', which means that the pre-processed data may need to be annotated by a human in some manner.[29] AI-driven computer vision techniques, such as 3DRTs, need to be trained based on 'cluster analysis' so that they can recognise common features in images.[30]

12 From a legal perspective, specific 3DRTs may not be completely self-standing. Instead, they may be integrated within other, 'trained' software services, and thus require the use of *pre-existing* 2D inputs in order for the technique to be implemented vis-à-vis *specific* 2D inputs selected for the purposes of generating a 3D output. Such pre-existing 2D visual content may be sourced in a variety of ways, which can differ significantly to the sourcing of content intended for use of 3D reconstruction. In that regard, it is crucial to consider the copyright law dimension of 2D visual content as inputs in the process of training 3DRTs in the first place, and whether such a use is interfering in any way with the rights of authorship or any related rights.

13 The training of 3DRTs is a potentially highly input-intensive part of developing 3DRTs. After all, 3DRTs are algorithms, some of which may have benefitted significantly from forms of training. Whereas training is not generally a legal notion of the EU copyright *acquis*, acts comprising training for the purposes of developing a 3D reconstruction technique may interfere with the *acquis*' exclusive rights, especially the right of reproduction in 2D visual content *used as training material*. Adequate authorisations for the training of 3DRTs would be necessary if they are to be implementable, including on the basis of exceptions and limitations.

14 Under copyright law, authorisations for the use of protected content generally originate with the relevant rightsholders. Especially in the context of the right of reproduction, the owner of the copyright or related right enjoys broad discretion in authorising acts congruent with those of a 'transformative use', meaning that a sufficient counter-performance on behalf of the potential licensee will in principle be necessary.[31] At the same time, exceptions and limitations may offer an *ex lege* authorisation covering acts covered by exclusive rights in the protected content. Most authorisations specified by licenses, many of which – although with similar characteristics – are not always readily generalisable.[32] Outside of cases of standardised licenses, such as Creative Commons licenses,[33] licenses can be difficult objects of scholarly legal analysis. For these purposes, the below focuses on authorisations that *are* common to the EU copyright *acquis*: statutory exceptions and limitations to copyright. Specifically, the analysis below considers the temporary and text-and-data mining (TDM) exceptions under the EU copyright *acquis*. Some scholars also refer to exceptions and limitations as means of introducing distinct form of "flexibilities" in the copyright system.[34] We do not directly endorse this conceptualisation of exceptions and limitations, but recognise that they generally facilitate 'unlicensed but lawful' uses of certain content protected by copyright and related rights. Crucially, the three-step test sets boundaries for exceptions and limitations in general.[35] An analysis

Gaussian Splatting' (arXiv, 22 July 2024) <http://arxiv.org/abs/2401.03890> accessed 11 August 2025.

29 Cf. Regarding the need for annotation in natural language processing: Martin Kretschmer, Thomas Margoni and Pinar Oruç, 'Copyright Law and the Lifecycle of Machine Learning Models' (2024) 55 IIC - International Review of Intellectual Property and Competition Law 110, 118-119.

30 Kretschmer, Margoni and Oruç, (n 29) 122-123.

31 This does not of course prejudice acts on behalf of rightholders via the use of open licensing practices, such as by using a Creative Commons (CC) license.

32 As a matter of EU law, the challenges for a harmonised perspective are outlined in Alain Strowel, Solène Festor de Suremain and Bernard Vanbrabant, 'Copyright licensing: A European view' in Jacques de Werra (ed), *Research Handbook on Intellectual Property Licensing* (2nd ed, Edward Elgar 2025).

33 See critically: Zachary Katz, 'Pitfalls of Open Licensing: An Analysis of Creative Commons Licensing' (2005) 46 IDEA: The Intellectual Property Law Review 391.

34 Caterina Sganga and others, 'D2.3 Copyright flexibilities: mapping and comparative assessment of EU and national sources' (reCreating Europe, 16 January 2023) <zenodo.org/records/7540511> accessed 13 August 2025; cf. regarding the use of 'flexibilities' instead to refer to discretion provided to national legislators in light of international norms: P Bernt Hugenholtz and Ruth Okediji, 'Conceiving an International Instrument on Limitations and Exceptions to Copyright' (Amsterdam Law School Legal Studies Research Paper No. 2012-43 Institute for Information Law Research Paper No. 2012-37), 11-26.

35 I.e. the exceptions and limitations can only apply (1) in certain special cases; (2) which do not conflict with the normal exploitation of the work; (3) and do not unreasonably prejudice the legitimate interests of the author; Art9 Berne Convention verbatim states that "[it] shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author"; it should be noted that although referring to "reproduction", the test is generally applied to all rights under copyright (Stephan Bechtold, 'Directive 2001/29/EC (Information Society Directive)' in Thomas Dreier and Bernt P Hugenholtz (eds), *Concise European Copyright Law* (Kluwer 2016, 2nd ed), 469; further it should be clarified that the CJEU has interpreted the three-step test to not only apply at the stage of Member State transposition, but also in interpreting the application of specific exceptions and limitations (Case C-5/08 *Infopaq I*

of the potential training stage of 3DRTs in light of the aforementioned exceptions and limitations thus sheds light on cases where such training may already be authorised.

II. Applicability of the Temporary Reproduction Exception

15 The temporary reproduction exception[36] may serve a facilitative function for forms of training, including 3DRTs. It is unique as one of few mandatory exceptions to the right of reproduction across the EU as well as for the clarificatory jurisprudence that is has received concerning certain "data capture" practices.[37] It is reminded that under Article 5(1) of the InfoSoc Directive, temporary acts of reproduction which do not infringe the right of reproduction of the rightsholder are at stake where:[38]

(1) the act is temporary;

(2) it is transient or incidental;

(3) it is an integral and essential part of a technological process;

(4) the sole purpose of that process is to enable a transmission in a network between third parties by an intermediary or a lawful use of a work or protected subject matter, and;

(5) that act does not have any independent economic significance.

16 The training of 3DRTs can comprise temporary acts of reproduction of preexisting 2D visual content that fulfil some of the limbs of the exception's requirements. Nonetheless, their cumulative nature, as well as the three-step test, makes it an overall difficult standard to fulfil.[39]

17 At a technical level, the required forms of storage may be difficult to achieve. In particular, 3DRTs may be trained in a variety of ways,[40] all of which may qualify as temporary (reproduction) acts that are integral and essential parts of the technological process of training in line with requirements (1) and (3), the remaining three criteria are especially noteworthy. Firstly, "transient act" means that the duration of any copies of protected content or data made in the course of training should be limited in duration to what is necessary for "proper completion of the technological process in question" such as via automated deletion.[41] This could be the case where 3DRT training extracts features from the underlying 2D visual content and this content is temporarily stored in the temporary memory of the machine performing the training. Accordingly, the training of the 3DRT itself may be transient where it can be properly completed. This also means, however, that 3DRT training needs to be separate from, e.g. the assembly into a database of 2D visual content in order to be transient.

18 Secondly, a "lawful use" must be pursued as the sole purpose of the technological process at stake. In the case of the training of a 3DRT. Lawful use is any use authorised by the rightsholder or "where it is not restricted by the applicable legislation".[42] In that regard, the question of whether the training process itself is restricted or not becomes central. Generally, the training processes involve a 'learning algorithm' being applied to the training data (here: 2D visual content).[43] In many cases, the constitution of the training data may be a custom-made dataset or corpora.[44] This extracts characteristics that are retained by the improved 3DRT's optimisation algorithm, but without producing copies of the content or data. As long as these extracted characteristics do not copy protected expressions or other protected subject matter, such use is lawful. For instance, where only facts or information are extracted,[45] the use is lawful in the sense of the temporary reproduction exception, although such use generally does not require copyright authorisation. By analogy,[46] such a training process

[2009] ECLI:EU:C:2009:465, para 58).

36 Art5(1) 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 [2001] OJ L 167/10 (hereinafter InfoSoc Directive); it must also be interpreted in light of the three-step test (Art5(5) InfoSoc Directive, as interpreted by *Infopaq I*, para 58; Case C-527/15 *Filmspeler* ECLI:EU:C:2017:300, para 63).

37 *Infopaq I*; Case 302/10 *Infopaq II* ECLI:EU:C:2012:16.

38 Article 5(1) InfoSoc Directive; Case C-302/10 *Infopaq II* ECLI:EU:C:2012:16 (*Infopaq II*), para 54.

39 As clarified by the CJEU in *Infopaq I*, para 55-7; *Infopaq II*, para 26-7; *Filmspeler*, paras 61-2; Case C-429/08 *Football Association Premier League* ECLI:EU:C:2011:631 ('*FAPL*'), para 162; Case C-360/13, *Public Relations Consultants Association v Newspaper Licensing Agency Ltd and others* ECLI:EU:C:2014:1195 ('*PRC*'), para 23.

40 The same can also be said of any needed steps comprising "pre-training", not considered here.

41 *Infopaq I*, para 64.

42 *FAPL*, para 169.

43 Thomas Margoni, 'Artificial Intelligence, Machine Learning and EU Copyright Law: Who Owns AI?' (CREATe Working Paper 2018/12, December 2018) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3299523> accessed 13 August 2025, 4.

44 Kretschmer, Margoni and Oruç (n 29) 124-125.

45 Cf. in the context of the TDM exceptions: Margoni and Kretschmer (n 18) 689-691.

46 It should be underlined that the point of this analogy is not

could be seen as akin to the reading of a book[47] – a lawful use of protected works and other subject matter.[48] 2D visual content may thus be 'viewed' and contribute to the development of a 3DRT as a distinct artifact.[49]

19 Thirdly, the issue of the independent economic significance of the temporary reproduction may be a difficult – albeit surmountable – hurdle for the training of certain 3DRTs. In the *Football Association Premier League* case, the CJEU clarified that the temporary reproduction has such independent economic significance where it generates "an additional economic advantage".[50] In that case, this advantage was defined as one "going beyond the advantage derived from mere reception of the broadcasts at issue", as the case concerned the reception of broadcasted football matches. *Mutatis mutandis* for 3DRTs, the court's clarification can be likewise understood to indicate that such an advantage must also go beyond that derived from the lawful use discussed above ('reception') in order to amount to "independent economic significance". Thus, the advantage of the temporary reproduction as part of the *training of the 3D reconstruction technique* as such becomes central. The individual temporary copy that may be used in the process of improving the 3DRTas an algorithm may be marginal,, some benefitting from further training, whereas others change the underlying mathematical optimisation functions.[51] The variety of factors influencing viability of an individual 3DRT notwithstanding, the field of such techniques is observably dynamic, wherein some techniques fail to take off and better ones are continually being created.[52] This makes any assessment as to the role of individual temporary copies in the training of a single 3DRT moot at best.

20 Overall, the temporary reproduction exception was designed to cover copy-reliant acts such as internet browsing and local caching.[53] These acts are certainly excepted from discretionary authorial authorisations, yet are far removed from the specific concerns in the field of 3D reconstruction. Nevertheless, the established notions and practice surrounding this exception may provide valuable guidance on a case-by-case basis,[54] with some commentators arguing that the exception should cover the training of a broader category of AI models and techniques.[55] It should nevertheless be borne in mind that, where it applies to such cases of 3D reconstruction, the temporary reproduction exception must also strike a "fair balance between the rights and interests of rights holders and of users of protected works who wish to avail themselves of those technologies".[56]

III. Applicability of Text and Data Mining (TDM) Exceptions

21 Under certain circumstances, the training of 3DRTs may further benefit from the 'text and data mining' (TDM) exceptions (Articles 3 and 4 CDSM Directive). As two separate provisions, they have different scopes and notions which need to be considered separately, though they also have distinct commonalities. Both

to equate human and machine interaction with protected content, but to highlight a potential convergence of lawful uses.

47 Cf. Niva Elkin Koren, 'Exploring Creative Commons: A Skeptical View of a Worthy Pursuit' in P Bernt Hugenholtz and Lucie Guibault (eds), *The Future of the Public Domain* (Kluwer Law International 2006), 3-4.

48 Viewing "cannot operate to the detriment of [the normal exploitation of the works]" (*PRC*, para 61).

49 This might be a matter of degree, also for instance, depending on the extent to which the training process is supervised or unsupervised (Cf. Kretschmer, Margoni and Oruç (n 29) 118); ultimately, this may require lending credence to the view that all protected content also contains material that is in the public domain, the use of which is lawful, cf. reflexively: "The public domain should be understood not as the realm of material that is undeserving of protection, but as a device that permits the rest of the system to work by leaving the raw material of authorship available for authors to use."(Jessica Litman, 'The Public Domain' (1990) 39 Emory Law Journal 965, 968).

50 *FAPL*, para 177.

51 This is the approach taken e.g. by Neural Radiance Fields (NeRFs): Ben Mildenhall and others, 'NeRF: Representing Scenes as Neural Radiance Fields for View Synthesis' (arXiv, 3 August 2020) https://arxiv.org/abs/2003.08934 accessed 13 August 2025.

52 Cf. "As impressive as those follow-up works on 3D [Gaussian splatting (GS)] are, and as much as those fields have been or might be revolutionized by 3D GS, there is a general agreement that 3D GS still has considerable room for improvement" (Guikun Chen and Wenguan Wang, 'A Survey on 3D Gaussian Splatting' (2024) <http://arxiv.org/abs/2401.03890> accessed 7 January 2025, 13).

53 Recital 33 InfoSoc Directive.

54 Cf. the interpretation in the German *LAION* case: LG Hamburg openJur 2024, 9199 *LAION*, para 57.

55 "The temporary copying exemption lends itself to an interpretation consistent with CJEU case-law that allows reproduction that occurs during the training of neural networks when this is carried out for the purpose of generating non-infringing outputs, provided that all copies made are automatically deleted (and datasets regularly updated if not automatically deleted) and that the outputs produced are non-infringing." (Juha Vesala, 'Developing Artificial Intelligence-Based Content Creation: Are EU Copyright and Antitrust Law Fit for Purpose?' (2023) 54 IIC - International Review of Intellectual Property and Competition Law 351, 360).

56 *PRC*, para 24.

provisions allow a beneficiary that has lawful access to the subject matter, that fulfils the requirements of each provision, to perform "text and data mining" (TDM). It is reminded that TDM is 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".[57] Generally speaking, Article 3 CDSM Directive only permits TDM for the purposes of *scientific research*,[58] whereas Article 4 CDSM Directive permits TDM for the general purposes with the option for rightsholders to reserve the use of the content ('opt-out').[59] These exceptions have been debated in scholarly discussions of EU copyright reform and its adaptability to current technological developments.[60] In addition, the TDM exceptions re-emerged as a point of discussion in the legislative procedure of the EU's AI Act, which *inter alia* requires general-purpose AI model providers to implement a policy for complying with TDM opt-outs in the context of Article 4 CDSM Directive.[61]

22 The training of 3DRTs were not one of the technological developments explicitly envisioned by the formulation of TDM. Further, although the terms included in the definition of TDM can be understood to cover most areas of AI relying on data analytics,[62] it may yet be the subject of jurisprudence e.g. in what way the training of a technique such as a 3DRT must be 'automated', which could foreclose certain levels of human supervision. These issues notwithstanding, the generously broad definition of TDM is very likely to cover aspects of the training of 3DRTs – as argued by Margoni and Kretschmer: "[TDM] certainly includes most modern, data-driven forms of AI, such as traditional machine learning and more advanced forms of deep learning and neural network structures".[63] Indeed, the TDM exceptions may play an important role for the specific 3DRTs that require training.[64] To be covered by the exceptions, 3DRTs must be designed in such a way that the learning algorithm that is utilised at the training stage meets the standard of an "automated analytical technique", i.e. the automated computational analysis of "information in digital form" that comprises the training data,[65] and the standard of generating 'information'. This is a yet fully-elaborated standard, although one notable national case, the Regional Court of Hamburg's decision in the *LAION* case,[66] has clarified that the "analysis of [an] image file for comparison with a pre-existing image description exemplifies an analysis for the purpose of producing information concerning 'correlations'".[67] By analogy, then, a 3DRT may be improved by the production of new correlation information by virtue of analysing a piece of 2D content such as an image, thus likewise performing TDM.

23 By contrast, the TDM exceptions may not always

57 Art2(2) CDSM Directive.

58 Art3 CDSM Directive; this must be performed by a "research organisation" defined as "a university, including its libraries, a research institute or any other entity, the primary goal of which is to conduct scientific research or to carry out educational activities involving also the conduct of scientific research: (a) on a not-for-profit basis or by reinvesting all the profits in its scientific research; or (b) pursuant to a public interest mission recognised by a Member State; in such a way that the access to the results generated by such scientific research cannot be enjoyed on a preferential basis by an undertaking that exercises a decisive influence upon such organisation" (Art2(1) CDSM Directive) or by a "cultural heritage organisation" defined as a "a publicly accessible library or museum, an archive or a film or audio heritage institution" (Art2(3) CDSM Directive).

59 Art4(3) CDSM Directive.

60 See among others: Kretschmer, Margoni and Oruç (n 29) 110; Juha Vesala, 'Developing Artificial Intelligence-Based Content Creation: Are EU Copyright and Antitrust Law Fit for Purpose?' (2023) 54 IIC - International Review of Intellectual Property and Competition Law 351; Margoni and Kretschmer (n 18) 685; Caterina Sganga, 'A New Era for EU Copyright Exceptions and Limitations?' (2020) 21 ERA Forum 311; Christophe Geiger, Giancarlo Frosio and Oleksandr Bulayenko, 'Text and Data Mining in the Proposed Copyright Reform: Making the EU Ready for an Age of Big Data?' (2018) 49 IIC - International Review of Intellectual Property and Competition Law 814; Rossana Ducato and Alain Strowel, 'Ensuring Text and Data Mining: Remaining Issues With the EU Copyright Exceptions and Possible Ways Out', (February 1, 2021). European Intellectual Property Review, 2021, Available at SSRN: https://ssrn.com/abstract=3829858 accessed 11 August 2025;

61 Art53(1)(c) 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) [2024] OJ L (AI Act); regarding discussion of this requirements, see Quintais (n 18); Peukert (n 18) 497.

62 Margoni and Kretschmer (n 18) 687.

63 Margoni and Kretschmer (n 18) 688.

64 Leander Stähler, 'The Production of 3D Digital Assets with NeRF: An Opportunity for the EU TDM Exceptions?' (*CiTiP blog*, 29 September 2023) <https://www.law.kuleuven.be/citip/blog/the-production-of-3d-digital-assets-with-nerf-an-opportunity-for-the-eu-tdm-exceptions/> accessed 11 August 2025.

65 Recital 8 CDSM Directive.

66 Addressing the transposed version of Article 3 CDSM Directive, i.e. Section 44b of the German Copyright Act.

67 Author's translation of the following sentence: "Diese Analyse der Bilddatei zum Abgleich mit einer vorbestehenden Bildbeschreibung stellt ohne Weiteres eine Analyse zum Zwecke der Gewinnung von Informationen über "Korrelationen" (LG Hamburg openJur 2024, 9199 *LAION*, para 73).

be applicable to implementations of generating 3D content as a distinct output. For instance, where the 2D inputs are pre-selected and 'analysed' in a non-automated manner, such as where a certain quality of 3D output is envisioned, this process may imperil access to the TDM exception. Further, it is uncertain whether the 'training' of a piece of 3D content fulfils the requirement "to generate information which includes but is not limited to patterns, trends and correlations". While 3D visual content may be interpreted as 'information' in a broad sense, it remains uncertain whether such an interpretation will be followed in the case law.[68] As complex as questions of TDM under the EU copyright law may be, questions of what it means to "generate information" may yet dwarf such considerations.[69]

24 Further, for TDM that does not pursue a research purpose, respecting the reservation (opt-out) by a rightsholder is essential. Such a reservation must be made in "an appropriate manner, such as machine-readable means in the case of content made publicly available online".[70] In the recent case of *DPG v HowardsHome*,[71] the court of Amsterdam found that the inclusion of a robots.txt opt-out for only specific AI bots is an incomplete means of reserving the use for TDM purposes.[72] In that regard, relevant developers of 3D reconstruction must adequately comply with any machine-readable opt-outs, such as those expressed via robots.txt.[73] Where rightsholders have not opted-out from TDM, reproductions and extractions "may be retained for as long as is necessary for the purpose of [TDM]",[74] including where these are used for the training of a 3D reconstruction technique.

IV. Intermediate Remarks

25 There are necessary caveats to the above analysis which relate to factual and doctrinal differences. Firstly, there exists the risk of a mismatch of the economic rights of copyright and/or the related rights from which these exceptions are carved out.[75] Namely, whereas some EU member states distinguish the right of adaptation from the right of reproduction, others treat the right of adaptation as part of the right of reproduction.[76] For the former case, the discussed exceptions may not find applicability where *training* of 3DRTs falls under the right of adaptation. Secondly, given the nature of Directives under EU law, these exceptions are not transposed or implemented in a completely uniform manner across the EU.[77] Surveys of the TDM exceptions, for instance, indicate that some Member States have explicitly authorised uses covered by the right communication to the public or the right of adaptation.[78] Finally, it should be noted that licences continue to offer a vector for the authorisation of 3DRTs training. Licensing practices are not only subject to change under the further development of AI techniques, but in the case of the TDM exceptions, may actually interfere with the applicability of exceptions due to the requirement of 'lawful access'.[79] Licences may be an indication that access to the mined 2D content was lawful.

68 Although patterns, trends and correlations are mentioned illustratively by the CDSM Directive (i.e. "including but is not limited to"), their demonstration clearly appear to strengthen the case for TDM to have generated information (cf. LG Hamburg openJur 2024, 9199 *LAION*, para 73).

69 Cf. from a US perspective: "Non-expressive uses generate information about a work, that information may be useful, it may be valuable, it may even affect the demand for the underlying work, but metadata about a work does not in any way fulfill the public's demand for the author's original expression. Reframing the argument in terms of expressive substitution provides a bridge to the concept of transformative use" (Matthew Sag, 'The New Legal Landscape for Text Mining and Machine Learning' (2019) 66 Journal of the Copyright Society of the U.S.A. 291)

70 Art4(3) CDSM Directive.

71 Rechtbank Amsterdam ECLI:NL:RBAMS:2024:6563 *DPG Media v HowardsHome*.

72 The specific bots specified by the claimants were GPTBot, ChatGPT-User, CCBOT and anthropie-ai (Rechtbank Amsterdam ECLI:NL:RBAMS:2024:6563 *DPG Media v HowardsHome*, para 4.33).

73 Such opt-out solutions are still developing, however, and while robots.txt has been referenced as a "minimum measure to identify and comply with", further forms of reservations are still being developed (See The General-Purpose AI Code of Practice, published on 10 July 2025, Copyright Chapter, Measure 1.3, available at: https://ec.europa.eu/newsroom/dae/redirection/document/118115 accessed 11 August 2025>).

74 Art4(2) CDSM Directive.

75 Cf. Rosati (n 18) 610f.

76 For a brief comparative overview, see Daniël Jongsma, 'Parody After Deckmyn – A Comparative Overview of the Approach to Parody Under Copyright Law in Belgium, France, Germany and The Netherlands' (2017) 48 IIC - International Review of Intellectual Property and Competition Law 652, 666-671.

77 Cf. Eleonora Rosati, 'Are Directives Good for the EU Internal Market? The Case of the Copyright DSM Directive and Its National Transpositions' (2021) 16 *Journal of Intellectual Property Law and Practice* 1027.

78 Italy and Spain respectively, see: Caterina Sganga and others, 'D2.3 Copyright flexibilities: mapping and comparative assessment of EU and national sources' (reCreating Europe, 16 January 2023) <zenodo.org/records/7540511> accessed 13 August 2025, 521.

79 Kacper Szkalej, 'The Paradox of Lawful Text and Data Mining? Some Experiences from the Research Sector and Where We (Should) Go from Here' (2025) 74 GRUR International 307.

26 Ultimately, the relevance of these considerations depends strongly on the protectability of 2D content and data that is in fact utilised for 'training' any 3DRTs. To wit, not all 3DRTs require extensive (if any) training, certainly not necessarily in the sense of e.g. large language models (LLMs) or many generative AI tools. Some techniques are capable of 'training' an individual piece of 3D content based solely on the given 2D content that is the source material. This removes the need for considering the specific copyright-relevant questions concerning training in general. However, especially in light of the ascending role of Generative AI tools, their integration with existing 3DRTs has become a distinct possibility, including under the 'text-to-3D' label.[80] In other words, whereas *certain* 3DRTs may not raise the same or similar legal questions regarding their 'training' as well-known examples of generative AI, those integrating generative AI tools that *have* been trained on vast amounts of data, will.

C. The Case of Non-Copyright-Relevant Use of 2D Inputs within 3D Outputs

I. From Factual Assumption to Legal Validation

27 In the subfield of AI-based 3DRTs, the output question of whether the 3D visual content (output) reproduces or otherwise reuses 2D content used as input/training data presents particular connotations, for the following reasons. On the one hand, a handful of selected and identified 2D content is used as input for the implementation of 3D reconstruction technique (see above Figure 1). On the other hand, the objective of the implemented technique is to generate as an output a 3D version of the 2D content used as input, as faithfully as possible, through the addition of aspects, views, angles etc. of that representation. Indeed, the objective of the process is shifting the represented object contained by the 2D content into a third dimension ('dimension shifting'). At the same time, the AI model will generate the 3D output by solely relying on the visual information contained in that handful of *specific* 2D content used as input to the AI model. Given the above factors, and notwithstanding the variation in technical objectives pursued by any individual 3DRT, it may be assumed, at least from a factual point of view, that 3D content generated by means of 3DRTs *is necessarily based on* specific 2D content and that a 'transformative use'[81] of the employed 2D inputs may be attested.

28 However, from a legal perspective, the mere use of 2D content as inputs within the above context does not lead to copyright-relevant form of 'derivation' or infringement *ipso facto.*[82] In particular, what needs to be assessed here is whether the factual connection between 2D input and 3D output, as described above, may be qualified as a *copyright-relevant* 'transformative use' of the 2D inputs. This requires the assessment of possible *derivation* (in an extended sense[83]) of 3D content from 2D content under EU copyright law and, especially right of reproduction. Only in case of affirmative answer to this question, 2D Content rightsholders would have the possibility to control the generation (creation) and further dissemination/use of such derivative 3D outputs, by implementing their exclusive rights.

II. Legal Assessment of 3D Outputs 'Derivation' under the EU Right of Reproduction

1. Absence of an EU Right of Adaptation

29 Given the above-mentioned transformative dimension of 3D reconstruction, owed to the dimension shifting of 2D inputs, a meaningful starting point for that legal assessment would be the *right of adaptation*. Indeed, in the passage from two to three dimensions, there is a need of modifications in 2D content, involving addition of aspects, views, angles, perspectives. Shifting a visual work into a third dimension may be qualified as an act of *alteration* of the former. However, under EU law and especially under InfoSoc Directive neither a horizontal right of adaptation, nor a general harmonised definition and protection rule for derivative works[84] has

80 See representatively: Chenghao Li and others, 'Generative AI Meets 3D: A Survey on Text-to-3D in AIGC Era' (arXiv, 25 October 2024) <http://arxiv.org/abs/2305.06131> accessed 11 August 2025; Ben Poole and others, 'DreamFusion: Text-to-3D Using 2D Diffusion' (arXiv, 29 September 2022) <http://arxiv.org/abs/2209.14988> accessed 11 August 2025.

81 See Introduction above.

82 Cf. Oleksandr Bulayenko and others, 'AI Music Outputs: Challenges to the Copyright Legal Framework' (2022) <https://ssrn.com/abstract=4072806> accessed 13 August 2025, 45.

83 Meaning that the 3D content in question need not to be an *original* derivative work in itself, but nonetheless make use of pre-existing 2D content for the purpose of its creation.

84 Marie-Christine Janssens, 'The Software Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar 2021), 93: "This is interesting as there exists no general European rule on adaptations as protected subject matter".

been introduced so far[85], in a way that the right of adaptation for visual content such as 2D Content is not part of the *acquis Communautaire*.

30 On the contrary, the right of adaptation and derivative works are regulated under the Berne Convention (in Articles 2 paragraph 3, 8 and 12 thereof).[86] Strictly speaking, the EU has not ratified the Berne Convention. However, since all Member States of the EU are also Members of the Berne Convention, they all provide for such an exclusive right of adaptation for authors,[87] although some have chosen to recognise the right of adaptation as a component of the right of reproduction, such as France, Belgium and the Netherlands.[88] In that sense, the right of adaptation is a common denominator of all EU member states,[89] even if such right has not been typically harmonized.[90] Still, in the absence of an explicit EU right adaptation, legal analysis under EU copyright law is not conceivable.

2. Reproduction as an Implied Component of 'Transformative Uses'

31 A way out from this conundrum may be sought by a deeper assessment of what a 'transformative use' of preexisting works entails. 'Transformative use' as outlined above[91] by definition implies the taking (to variable extent) of (at least) some elements of the pre-existing works (in identical or altered form) that will serve as components (along with other components not connected with those works) for the production of something new. Accordingly, under this approach, taken elements from pre-existing works will be integrated within the outcome of transformative process. In its turn, Article 2 InfoSoc Directive establishes a far-reaching scope for the right of reproduction,[92] which is additionally subject to a broad interpretation by the CJEU.[93] Hence, it remains to be assessed whether the taking of elements of pre-existing 2D content, in the context of their 'transformative use', and their integration within the new object (3D visual content), could qualify as reproduction under Article 2 InfoSoc Directive.

32 Article 2 of the InfoSoc Directive does not define the concept of either 'reproduction' or 'reproduction in

85 For the absence of a harmonised right of adaptation, see e.g. Raquel Xalabarder, 'The Marrakesh Treaty on Certain Permitted Uses for the Benefit of Blind, Visually Impaired and Print-Disabled Persons' Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar 2021), 625; Irini Stamatoudi and Paul Torremans, 'Digital Single Market Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A commentary* (Edward Elgar 2021), 668; Bulayenko and others (n 82) 45. Right of adaptation is recognized only with regards the specific subject matter of computer program and databases. See Article 4(1)(b) Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs [2009] OJ L 111/16 (Software Directive) and Article 5(b) Database Directive.

86 According to Article 2(3) Berne Convention, under the open-ended term "Derivative works" fall (indicatively) translations, adaptations, arrangements of music and *other alterations* of a literary or artistic work. These derivative works "shall be protected as original works without prejudice to the copyright in the original work." (Original) derivative works imply the *creative reuse* of preexisting works. In addition, Article 8 establishes the Right of Translation (Authors of literary and artistic works protected by this Convention shall enjoy the exclusive right of making and of authorizing the translation of their works throughout the term of protection of their rights in the original works) and Article 12 establishes the Right of Adaptation, Arrangement and Other Alteration (Authors of literary or artistic works shall enjoy the exclusive right of authorizing adaptations, arrangements and other alterations of their works).

87 Under national laws, categories of derivative works are usually defined by law and the creation of derivative works is often covered by a separate economic right, usually adaptation or transformation right.

88 Jongsma (n 76) 666-668.

89 Cf. Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* [2015] ECLI:EU:C:2015:27 ('*Allposters*'), para 38: "That finding, as the European Commission correctly states, is supported by international law, and in particular by the WIPO Copyright Treaty, in the light of which Directive 2001/29 must be interpreted as far as possible."

90 Jean-Paul Trialle, 'User Generated Content (UGC) – First PArtDescription of the present legal situation regarding copyright in the European Union' in Jean-Paul Trialle and others (eds), 'Study On The Application Of Directive 2001/29/EC On Copyright And Related Rights In The Information Society (The "InfoSoc Directive") (European Union, October 2013) <https://www.cultura.gob.es/planes-nacionales/en/dam/jcr:b15ddad4-6800-41d8-8b66-96c6d12029fb/131216-study-en.pdf> accessed 13 August 2025, 461; It should also be noted, however, that the letter of the two specific EU legal instruments that introduce a right of adaptation for their specific subject-matter (Software and Database Directives) implies reference to the definitions of Berne Convention (translation, adaptation, arrangement and any other alteration).

91 I.e. any act performed upon or reuse of a pre-existing 2D visual content that aims at the generation of a new 3D visual output, see above under Introduction.

92 Article 2 InfoSoc Directive; Cf. Recital 21 InfoSoc Directive: "This Directive should define the scope of the acts covered by the right of reproduction with regard to the different beneficiaries. This should be done in conformity with the acquis communautaire. A broad definition of these acts is needed to ensure legal certainty within the internal market".

93 *Infopaq I*, paras 41-43.

part' of a work,[94] nonetheless it should be subject to autonomous and uniform interpretation.[95] The meaning and scope of those words must, as the Court has consistently held, be determined by considering their usual meaning in everyday language, while also taking into account the context in which they occur and the purposes of the rules of which they are part.[96] According to the usual meaning in English language in the context of reproduction of works,[97] reproduction may have multiple connotations: it may refer to the *process of copying* something and to the *copy* (i.e. the outcome of the process) itself,[98] to concepts such *as duplicate, replica or close imitation of an existing thing,*[99] as well as to "*a representation, expression, or rendition of the essential features of a quality, mood, or other non-material thing*".[100] In all the above definitions it is implied that the reproduction entails the *production of something new* that *has a certain type connection* with a different object, which, logically, pre-exists. In particular, a reproduction will be at stake insofar the new item shares identical or common aspects or elements with the pre-existing one.[101] According to the multiplicity of concepts covered under the term "reproduction", the connection between the preexisting and the new item in the context or reproduction may take various forms, starting from absolute identity (e.g. replica, when all aspects of both items are exactly the same) until close imitation (when all or some aspects of both items are similar or some are identical and some similar[102]) or rendition of essential features of the preexisting item within the new one (when only some aspects of both items are identical or similar).[103] This means that a reproduction will also be at stake where the new item shares common or similar elements with the pre-existing one but, at the same time, also presents its own individual aspects, which may not be identical nor similar with the aspects of pre-existing item.[104]

33 Following the above, reproduction under Article 2 InfoSoc Directive would cover the taking of elements of a preexisting work and their integration within a new output in the context of 'transformative use'. Which means that 3D reconstruction would involve

94 *Infopaq I*, para 31.

95 *Infopaq I*, para 27: "It should be noted as a preliminary point that the need for uniform application of Community law and the principle of equality require that where provisions of Community law make no express reference to the law of the Member States for the purpose of determining their meaning and scope, as is the case with Article 2 of Directive 2001/29, they must normally be given an autonomous and uniform interpretation throughout the Community (see, in particular, Case C 245/00 *SENA* [2003] ECR I 1251, paragraph 23, and Case C-306/05 SGAE [2006] ECR I 11519, paragraph 31)".

96 Cf. Case C-476/1729 *Pelham GmbH, Moses Pelham, Martin Haas v. Ralf Hütter, Florian Schneider-Esleben* [2019] ECLI:EU:C:2019:624 ('*Pelham I*'), para 28 and case-law cited; *Infopaq I*, para 32: "In those circumstances, those concepts must be defined having regard to the wording and context of Article 2 of Directive 2001/29, where the reference to them is to be found and in the light of both the overall objectives of that directive and international law (see, to that effect, SGAE, paragraphs 34 and 35 and case-law cited)".

97 Reproduction refers also to the biological process by which a new member (or members) of a species is created from a parent (or parents), which is not relevant here.

98 *Cambridge English Dictionary*, s.v. "reproduction *noun* (COPY)", sense C1, <https://dictionary.cambridge.org/dictionary/english/reproduction> accessed 13 August 2025.

99 *Merriam-Webster*, s.v. "reproduction (noun)" <https://www.merriam-webster.com/dictionary/reproduction> accessed 13 August 2025 and *Collins Dictionary*, s.v. "Definition of 'reproduction'" <https://www.collinsdictionary.com/dictionary/english/reproduction> accessed 13 August 2025.

100 *Oxford English Dictionary*, s.v. "reproduction (n.)", sense 2.b., March 2025, <https://doi.org/10.1093/OED/7042576827> accessed 13 August 2025.

101 Cf. *Allposters*, para 27: "However, and without having to interpret the concept of 'adaptation' within the meaning of Article 12, it is sufficient to state that both the paper poster and the canvas transfer contain the image of a protected artistic work and thus fall within the scope of Article 4(1) of Directive 2001/29 as copies of a protected work marketed within the European Union."

102 Cf. Rosati (n 18) 614, referring to "non-literal copying".

103 On that topic, see from a US perspective Oren Bracha, 'Generating Derivatives: AI and Copyright's Most Troublesome Right' (2024) 25 North Carolina Journal of Law and Technology 345, 375: "In modern copyright law, the scope of reproduction stretches beyond literal copying or even copying with trivial changes into a zone of substantial similarity".

104 It is in the same vein that it may be argued that right of adaptation is included within the scope of right of reproduction. See e.g. Stamatoudi and Torremans (n 85) 668: "Although the Information Society Directive does not expressly refer to the adaptation and translation rights, it could be argued that they are included within the scope of the right of reproduction by reason of its very broad definition." Cf. Margoni (n 43) 11; Trialle (n 90) 460, mentioning "strong relationship with the right of adaptation"; Rosati (n 18) 616: "[right of reproduction] applies to instances of literal and non-literal copying and, therefore, also to situations that, formally, might fall under the right of adaptation." Cf. also Green Paper on Copyright in the Knowledge Economy, /* COM/2008/0466 final */ under 3.4.: "Under the Berne convention, a transformative use would be prima facie covered by the right of reproduction and the right of adaptation." Besides, as already mentioned, at the MS level some Copyright Acts systematically classify the right of adaptation as a form of reproduction, see Margoni (n 43) 11.

(but would not be limited to[105]) some kind of (at least partial) *reproduction* of that pre-existing work that would be covered by Article 2 InfoSoc Directive, irrespectively of whether the new output features its own original aspects. As a consequence, given the current status of the EU copyright *acquis*, the basis for assessing copyright-relevant 'transformative use' of 2D inputs for the purposes of 3D Reconstruction within the generated 3D content could be the *right of reproduction*.[106] Consequently, it will be sufficient to state that 3D content *reproduces* 2D content in a legal sense, in order to affirm copyright-relevant 'transformative use' of 2D inputs within 3D output.[107]

3. The Scope of Right of Reproduction in the 'Transformative Use' Context

34 According to interpretation offered by the CJEU, the author's right of reproduction in the sense of Article 2 of the InfoSoc Directive is at stake when *protected elements*[108] of a given work are reproduced.[109] Those elements will be protectable subject matter, i.e. original, insofar they reflect the personality of its author, as an expression of his free and creative choices[110], independently of their size.[111] Accordingly, originality of reproduced work and elements taken therefrom informs the scope of the right of reproduction. Inversely, no reproduction in the sense of Article 2 InfoSoc Directive will be at stake when reproduced elements are not author's own intellectual creation, making part of the *original expression* of the work. This will be the case, among others, when these elements have been dictated by technical considerations, rules or other constraints which have left no room for creative freedom[112]. The same goes for *mere facts and ideas*. Even if EU Copyright *acquis* does not explicitly exclude them from copyrightable subject-matter (as international instruments do[113]), this stems from the idea/expression or fact/expression dichotomy that characterizes also the EU copyright *acquis*.[114]

35 For integrity reasons, the same approach should be followed when assessing reproduction in the context of 'transformative use' that triggers the reproduction right.[115] In light of the above, reproduction will be at stake in the context of 'transformative use' of a work, insofar the elements that are taken (by means of duplication, close imitation, presentation or rendition of essential features) are *protectable elements* of the said work, meaning that they are the expression of author's own intellectual creation. It will be indifferent whether those taken protectable

105 In that regard, transformative uses/adaptation may be qualified as derivative acts vis-à-vis the reproduction acts; from a US perspective, Daniel Gervais, 'AI Derivatives: the Application to the Derivative Work Right to Literary and Artistic Productions of AI Machines' (2022) 53 Seton Hall Law Review 1111, 1119: "Second, unless one is prepared to violate the basic canon of statutory construction that guards against superfluity, the derivative work right cannot have the exact same scope as the right of reproduction. This logically implies that, although the Venn diagram of the two rights would show considerable overlap, some derivative works are not reproductions."

106 Article 2 InfoSoc Directive; in the same vein, re: AI music outputs, see Bulayenko and others (n 82), 46.

107 For a similar approach see *Allposters*, para 27: "However, and without having to interpret the concept of 'adaptation' within the meaning of Article 12, *it is sufficient to state* that both the paper poster and the canvas transfer contain the image of a protected artistic work and thus fall within the scope of Article 4(1) of Directive 2001/29 as *copies of a protected work* marketed within the European Union."

108 Protected elements presuppose their qualification as elements which are the expression of author's own intellectual creation. *Infopaq I*, para 39: "the various parts of a work thus enjoy protection under Article 2(a) of Directive 2001/29, provided that they contain elements which are the expression of the intellectual creation of the author of the work."

109 *Infopaq I*, para 33: "It follows that protection of the author's right to authorise or prohibit reproduction is intended to cover 'work'."

110 CJEU, Case C-833/18, *SI, Brompton Bicycle Ltd v Chedech/Get2Get* [2020] ECLI:EU:C:2020:461 ('*Brompton*'), para 23, citing *Cofemel*, C-683/17, EU:C:2019:721, paragraph 30 and the case-law cited; CJEU, Joined Cases C-580/23 and C-795/23, *Mio AB, Mio e-handel AB, Mio Försäljning AB v Galleri Mikael & Thomas Asplund Aktiebolag and USM U. Schärer Söhne AG v konektra GmbH* [2025] EU:C:2025:941 ['*Mio/Konektra*'], para 61.

111 See *Infopaq I*, para 38: "As regards the parts of a work, it should be borne in mind that there is nothing in Directive 2001/29 or any other relevant directive indicating that those parts are to be treated any differently from the work as a whole. It follows that they are protected by copyright since, as such, they share the originality of the whole work."; Margoni (n 19) 26.

112 See *Brompton*, para 24.

113 See e.g. Article 2§8 Berne Convention: "The protection of this Convention shall not apply to news of the day or to miscellaneous facts having the character of mere items of press information." Cf. CJEU, Case C-406/10, *SAS Institute Inc. v World Programming Ltd* [2012] ECLI:EU:C:2012:2592, para 33: "With respect to international law, both Article 2 of the WIPO Copyright Treaty and Article 9(2) of the TRIPs Agreement provide that copyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such."

114 See among others Margoni and Kretschmer (n 18) 689-690.

115 See, however, in favor of a differentiated and more flexible approach that takes into account the idiosyncrasy of the right of adaptation, Margoni (n 43): "The more transformative a work is, the less likely a finding of infringement should be, irrespective of how much of the original author's own intellectual creation has been taken."

elements correspond to the whole or part of the pre-existing work or whether those elements constitute literal or non-literal (imitative) (partial) copies of the preexisting work. On the contrary, reproduction of elements of the 2D content within the 3D output which are not the expression of the intellectual creation of the author of the work will not be covered by the right of reproduction. Thus, no derivation in the sense outlined above will be attested between 2D and 3D content, as long as no protectable elements of 2D content are reproduced. In that case, 3D content would be an independent output, notwithstanding the fact that its generation has been based in those specific 2D inputs.[116]

III. No Copyright-Relevant Use of 2D Inputs within 3D Output as a Baseline Scenario

1. Protected and Unprotected Elements within 2D Inputs

36 The assessment for the existence of a reproduction as defined above implies the implementation of a test, according to which the two works are undertaken a comparison, in order to detect whether and to what extent the new item shares identical or common aspects or elements with the pre-existing one.[117] In the context of 'transformative use' of 2D inputs for 3D reconstruction purposes, this test may not be very meaningful, insofar a *prima facie* similarity between 2D inputs and 3D outputs would probably be attested.[118] Thus, it is important to address first what type (semantic or syntactic[119]) of information is distilled in the course of AI training based on 2D inputs depicting real-world objects and taken (reproduced) in the context of 3D output generation.[120]

37 The answer to this issue is crucially affected by the objectives of AI model training in the 3D reconstruction context and, in particular, by the type of inference that the 3DRT is intended to generate. To begin with, 2D inputs that represent real world objects embody elements that are not the author's own intellectual creation, to the extent that they are dictated by the physical reality. For instance, the object itself, as well as data, physical dimensions and structural elements of the represented real-world object, considered in isolation, leave no room for creative freedom to the creator of 2D content.[121] For example, one cannot decide how a photographed person would look like as an aspect of reality, and the facts that describe it. Represented objects within 2D content, if considered in isolation,[122] mainly relate to unprotectable facts/ideas and their representation

116 For a similar conclusion in a different context, see Bulayenko and others (n82) 46: "Take for example a case where and AI output reproduces parts of copyright- protected works used as input for its creation. The secondary work does not need to reproduce the primary work in its entirety, it is sufficient that the elements that made the primary work original (i.e., copyrightable) are present in the secondary work. Though it might (also) be a derivative work, this scenario would most likely be litigated as potential infringement of the right of reproduction analysis. Conversely, the reproduction of either ideas or unoriginal elements has no copyright significance."

117 Cf. Rosati (n 18), referring to "test of actionable reproduction". *Adde* A. Strowel & R. Ducato, 'Artificial intelligence and Text and Data Mining. A copyright carol', in E. Rosati, *The Routledge Handbook of EU Copyright Law*, Routledge, 2021, 299 ., 308-309, where a purposive infringement test is provided.

118 Cf. P Bernt Hugenholtz, Copyright and the Expression Engine: Idea and Expression in AI-Assisted Creations (February 27, 2024). Available at SSRN: https://ssrn.com/abstract=4982516 or <http://dx.doi.org/10.2139/ssrn.4982516> accessed 11 August 2025, 19: "Like in the United States, courts in Europe usually infer copying from prima facie similarity. If the defendant's work has an apparent likeness to the plainIff's, the burden of proof is reversed and it is for the alleged infringer to demonstrate that there was no copying – usually, a probatio diabolica."

119 Cf. a similar distinction in Tim W Dornis, The Training of Generative AI is not Text and Data Mining, (October 19, 2024), Eur Intellect Prop Rev 47 (2025), 65; available also at SSRN: <https://ssrn.com/abstract=4993782> accessed 11 August 2025, 5.

120 Cf. for a similar approach, Benjamin Sobel, Elements of Style: Copyright, Similarity, and Generative AI (May 18, 2024). Harvard Journal of Law & Technology, Forthcoming Vol. 38, Cornell Legal Studies Research Paper Forthcoming, Available at SSRN: <https://ssrn.com/abstract=4832872> accessed 11 August 2025, 71: "Art objects have no literal elements, because no series of standardized symbols defines the identity of a painting as the text does for a work of literature. For this reason, it makes little sense to focus on whether generative AI "copies and pastes" images: our focus should not be on how generative AI distills and reproduces salient information from images; it should be on what that information is, and whether it is of a sort that ought to be of consequence for copyright law."

121 Cf. *Infopaq I*, para 46: "Words as such do not, therefore, constitute elements covered by the protection."

122 Cf. in a similar way *Infopaq I*, para 45: "Regarding the elements of such works covered by the protection, it should be observed that they consist of words which, considered in isolation, are not as such an intellectual creation of the author who employs them. It is only through the choice, sequence and combination of those words that the author may express his creativity in an original manner and achieve a result which is an intellectual creation."

cannot be abstractly monopolized[123] as *corpus mysticum*.[124]

38 At the same time, the same 2D content may be qualified as such as an original work, meaning that it is author's own intellectual creation, due to free and creative choices made during its creation by which the author imprinted his personality on the work. Indeed, one may decide to control, regulate and modify a number of parameters, such as the moment, the context and possibly the surrounding where a real-world object will be represented. For instance, in case of 2D content consisting in photographs, the photographer may intervene and make free and creative choices in the preparation phase (choose the background, the subject's pose and the lighting),[125] in the execution phase (framing, angle of view and the atmosphere created) and in the post production phase (selection, corrections etc.). Authorial contributions in 2D visual content rather relate with choices surrounding the *way* this real-world object is represented, i.e. the representation itself, and not the represented object (unless if represented object is also a protectable subject matter in itself). As a consequence, it is possible to typically differentiate between two layers within visual 2D content representing real-world objects: the layer of protectable expression which is to be found in principle in the representation itself, i.e. the visual 2D content *per se*, and the layer of unprotectable facts, which may be associated with the represented real-world object.

2. Focus on Reconstruction of the Represented Object

39 For its part, 3D reconstruction, as a process, targets and focuses on the represented real-world object. Indeed, according to the technical features and objectives of 3D reconstruction, training and analysis of 2D visual content used as input aims at obtaining knowledge about the features and data around the *represented* real-world object and not the representation (i.e. photograph, video frame etc.) itself. One could even argue that 3DRTs intend to bypass the representation layer (and the eventual authorial contribution contained therein), in order to identify certain (factual) data points pertaining to the represented object, enabling different spatial and temporal uses. This is because the objective is not to create a similar type of work (e.g. a photograph or a video) but a different type of creation (3D content) which refers to the represented object.

40 Accordingly, the aim is not the dimension shifting of the 2D content as a representation *per se* but, rather, the generation of a 3D version of the represented object. This becomes clear by the fact that 2D inputs used as training material for the 3DRT cannot be abstract or aesthetic creations but they should represent real-world objects and, more precisely, the same object, possibly from different angles, views etc. Consequently, the pursued and distilled knowledge from training refers to metadata / metainformation contained, as latent facts or data, within the 2D Content that are connected with the represented object. It refers, in particular, to rather valuable information patterns such as certain data points, spatial information and other structural or informational elements including high-abstraction structural elements, or mere physical aspects[126]. This information reflects unprotectable mere facts and data regarding the represented real-world object that are embodied in the 2D content.

3. Reproduction of Unprotectable Metadata

41 In 3D reconstruction context, 3D output will be generated on the basis of this knowledge that will serve as a *matrix* for generating the 3D content from scratch,[127] i.e. by sole reference to the structural and

123 Cf. Margoni (n 19) 14: "3) When an expression is determined by technical or functional rules, such as when there is only one way to express an idea, or the expression is predetermined by a specific goal or constrained by narrow rules which leave no space to free and creative choices no originality can be present."

124 Unless the represented object is protectable subject matter in itself, e.g. a statue, an architectural work, a work of applied art etc., although some of these objects may still fall in the public domain.

125 Margoni (n 19) 28.

126 Bracha (n103) 349 mentioning "metainformation, high-abstraction structural elements, or mere physical aspects" and "informational elements".

127 Cf. Scenario 4 in Gervais (n 105) 1129: "Scenario 4. AI machine produces a painting "based upon" a dataset of five abstract paintings that contain geometric shapes such as circles, squares, and triangles. The main difference between the third and fourth scenarios in terms of the infringement analysis is that common symbols are not protected expression." *Ibid.* p. 1128: "the computer does not in fact derive; instead, it finds correlations and patterns to use as a matrix for its own production."; Bracha (n 103) 382; Bulayenko and others (n 82) 45, citing Daniel Gervais, 'The Machine As Author' (2019) 105 Iowa Law Review 2053: "In a deep learning context, the computer does not derive in that sense; instead, it finds correlations and patterns to use as a matrix for its own production. These productions are not, therefore derivative works."; Bulayenko and others (n 82) 46, citing Maria Iglesias and others, 'Intellectual Property and Artificial Intelligence: A Literature Review' (Publications Office of the European Union 2021) <https://

informational elements deducted from 2D inputs during training. 3D content would thus be based on the 2D content and, more precisely, on the non-protectable layer of information embodied in the 2D content as the level of represented object, and not to the expression of the 2D content itself. In that regard, preexisting 2D Content may be seen as an 'idea' or pure data,[128] an aspect of the reality,[129] or facts concerning the represented object.[130] Under these circumstances, the 2D input serves as *medium* of the visual appearance of the object in question and bears the necessary semantic information related with the represented object for the 3DRT to use when generating a three-dimensional representation of that represented object as output, shifting the output to an additional dimension. Moreover, the elements taken and integrated within the 3D output will correspond to unprotectable facts and not to protectable expression of 2D inputs.

42 In sum, 3D reconstruction at the output stage would entail a *de minimis*[131] use of protected 2D content as input, in the sense that this content would offer the necessary latent/embodied unprotectable information and data, which constitute the 'instructions' for the generation of a 3D object and relate with the represented object of those 2D inputs. In turn, this use would not be qualified as reproduction in the legal sense,[132] but a reproduction of non-protected elements, which remains insignificant from a copyright perspective.[133] As a consequence, 3D output would be an independent work (whether this new (3D) expression of the fact is original, is a different question) and the generation of 3D content based on this 2D content, at least at the output stage, would not amount to copyright infringement.[134] Given the nature and objectives of 3D reconstruction, one may argue that this will be the rule: 2D inputs will not be reproduced in a legal sense within 3D output, as long as the output stage of 3D Reconstruction employs unprotected metainformation embodied in the 2D content and relating with the represented object.[135] Accordingly, 3DRTs would not function as "3D collage machines", but rather as "virtual 3D printers".

IV. Residual Copyright-Relevant Uses

43 However, it cannot be excluded that copyright significant reproductions may take place at the output stage. This will happen at least in two cases:

1. Copyrighted Represented Object

44 As seen above, the generation of the 3D output on the basis of data points, spatial information and other structural, aspectual or informational elements regarding the represented object will lead to the identical reproduction of the appearance of that object along with an additional dimension. In case of copyrighted real-world 3D objects that are represented within 2D inputs (e.g. statues, architectural works and so on), their appearance typically constitutes protected expression under copyright law. As a consequence, 3D reconstruction will lead to copyright-relevant reproduction of that represented object within 3D output.

2. The 2D Content Layer Dictates the Represented Object

45 Another scenario where 3D output may integrate protected elements from 2D input will be where the represented object and its original representation fuse. This will happen when structural, aspectual,

data.europa.eu/doi/10.2760/8600> accessed 13 August 2025: "In cases where individual works or subject-matter are not per se reproduced (i.e. where only information about those is included), one could in principle conclude that the final results should not be considered as a derivative."

128 Cf. Gervais (n 105) 1130: "what is "taken" from the painting does not appear in the output. The paintings become pure data, as it were."

129 Margoni (n 19) 51.

130 Cf. Gervais (n 105) 1119-1120: "a zone between (and occasionally "beyond") reproduction, on the one hand, and uses that are inspired by, but not infringing (because they are not "based upon"), an earlier work, on the other hand."

131 Cf. Trialle (n 90) 460: "Apart from the exceptions, there may arguably be some notion of "de minimis": copying and remixing (etc) very small amounts may not always suffice to engage either the reproduction or the right of adaptations."

132 In EU law under Art2 InfoSoc Directive; Cf. Bracha (n 103) 384: "But the output does not incorporate any concrete expression from any specific work."

133 Cf. Bulayenko and others (n 82) 46: "Conversely, the reproduction of either ideas or unoriginal elements has no copyright significance."

134 See Margoni (n 43) 9: "Not every case of creation of a work based on another work constitutes an act of adaptation or alteration requiring authorization. In order to constitute a derivative work the elements constituting the intellectual creation in a primary work need to be reproduced, adapted or altered in the secondary work."

135 This is the opposite conclusion in comparison with transformative reuse of pre-existing works in the context of User Generated content, see Trialle (n 90) 464: "As a summary – and we think that most commentators will agree with it and that this will not give rise to much debates - UGC falls under the scope of altogether the right of reproduction, the public communication/making available right and the (not harmonized) right of adaptation."

or informational elements of the represented object are the outcome of free and creative choices of the creator of the 2D representation and, therefore, make part of the protected expression of the 2D input. These choices may refer e.g. to the subject's/object's pose, setting or background, which are not accidentally or factually dictated by physical reality of the represented object (like in the case of a copyrighted represented object). In these cases, the author of the 2D input (e.g. video, photograph) is not limited to simply produce a representation of the factual reality that is connected with the represented object, but rather determines and impacts (at least to some extent), with his free and creative choices, the appearance of the represented object. Evidently, this will be the case of 2D that presents *high level of originality*,[136] contrary to 2D works that are the outcome of a relatively small number of creative choices. The 3D reconstruction of that protected expression within 3D output would entail a copyright-relevant 'transformative use' of the 2D input and a relation of derivation would be established between said 2D input and 3D output. As a consequence, generation and further use of the 3D output will be subject to rightsholder's authorization, unless if an exception applies (see below, Section D).

V. Synthesis

46 In light of the above analysis, it may be argued that 2D inputs as a form of data will not be typically reproduced within 3D output in the sense of EU copyright law, as long as the output that derives from the implementation of 3D reconstruction techniques reuses unprotectable structural and informational elements referring to the represented object within those 2D inputs. But still, it remains possible that copyright significant reproductions may take place at the output stage, especially when the authorial contributions in the representation layer dictate the form of represented object. Thus, the assessment of whether protected expression elements, stemming from the representation as such, are reproduced within the 3D output will,[137] again, remain a matter of factual analysis on a case-by-case basis. In that regard, legal examination should employ as a starting point the original features of the representation layer and should focus on whether the 3D output reproduces original elements that solely refer to that layer and that are traceable to a specific 2D input.[138] Given the transformative context, the implementation of a recognizability criterion, according to which a partial reproduction would take place if original features ("creative elements") of the representation layer of 2D input *per se* are *recognizable to the sight* within the 3D output, would be relevant.[139] But, after all, further exploration of possible ways of making this (re)use lawful, under current EU copyright *acquis* remains pertinent.

D. Copyright-Relevant 'Transformative Uses' of 2D Inputs within 3D Outputs: Exceptions and Limitations to Copyright

47 Based on the above analysis, it may be the case for many implementations of 3DRTs that there is no copyright-relevant reproduction of 2D inputs within the 3D output. Nevertheless, it cannot be excluded that in some cases, copyright-relevant reproductions may indeed take place at the output stage (see above C.IV.2.). Here again, for acts of reproductions or other acts that affect copyright-protected works, fixations of performances, fixations of films and fixations of broadcasts, the need for some form of authorisation is evident. Further, such consideration may have significant impacts on downstream usage scenarios, such as in the context of XR, MR or virtual worlds.

136 See Lionel Bently and others, 'The Protection of Works of Applied Art under EU Copyright Law – Opinion of the European Copyright Society in Mio/konektra (Cases C-580/23 and C-795/23)' (2024) 56 IIC – International Review of Intellectual Property and Competition Law 798, 820.

137 Cf. Bracha (n 103) 384: "If copyright subject matter restrictions are not to be nullified, the right of derivatives can only apply when specific expression that is traceable to a particular work, rather than unprotectable metainformation, is incorporated into the generated output."

138 Cf. Bracha (n 103) 385: "Filtering unprotectable elements as part of the infringement analysis operates on a complementary level: it ensures that copyright is not extended beyond its domain, even when a work contains protectable expressive elements, by insisting that it is only the taking of protected expression that can be the basis of copyright infringement."

139 See in a similar direction, especially Karina Grisse and Carola Kaiser, 'On the significance of (un)recognisability for the right of reproduction in European copyright law' (2022) 44 EIPR 78, 81; Lionel Bently and others, 'The Protection of Works of Applied Art under EU Copyright Law – Opinion of the European Copyright Society in Mio/konektra (Cases C-580/23 and C-795/23)' (2024) 56 IIC – International Review of Intellectual Property and Competition Law 798, 825; Cf. Case C-580/23 Mio and others [2023] Request for a preliminary ruling; Case C-580/23 *Mio* and others [2025] ECLI:EU:C:2025:330, Opinion of AG Szpunar and already *Mio/Konektra*, para 92, which has been meanwhile issued; *Contra* Rosati (n 18) 618.

48 Authorisations can take the form of a license,[140] the terms of which will be usually determined by the rightsholder(s) in accordance with applicable contract law,[141] or of a type of sub-licensing agreement. In line with the general understanding of authorisations for the use of protected content in section B, the following outlines how the *ex lege* authorisations, provided by statutory exceptions and limitations, may apply to the process of 3D reconstruction that uses 2D content as an input/prompt, corresponding to the 3D visual content as output (*supra* Figure 1).

I. Exceptions and Limitations as *ex lege* Authorisation for 'Transformative Uses' in a 3D Reconstruction Context

49 A few characteristics of exceptions and limitations come into play in dynamics of 2D visual content use implementing 3DRTs. Specifically, any exception or limitation that also covers relevant forms of 3D reconstruction must be consistent with the special cases that the exception or limitation outlines. Exceptions and limitations are specific to certain forms of use, independent of the specific right that is being excepted or limited. As there is no exception or limitation specifically authorising the use of 3DRTs on copyright or related rights-protected content, an interpretation of uses addressed by existing exceptions and limitations is necessary, which needs to be carefully undertaken, especially vis-à-vis the three-step test.[142]

50 A second caveat may emerge from the fact that some exceptions and limitations are subject matter-specific. Not all types of (2D visual) content are certain to fall within their ambit. This is a specific concern where there are multiple layers of rights that cover a single piece of 2D visual content, e.g. where 2D visual content protected by copyright is contained within a database protected by the *sui generis* database right, which each respectively have different (though overlapping) sets of potentially applicable exceptions and limitations. Further still, a 2D visual content may be a still frame from a film covered by the producer's related right. It is therefore not guaranteed that an exception or limitation to one right will cover all (forms of) uses of the content in question.[143]

51 Given these caveats to exceptions and limitations, it follows that not all exceptions and limitations will be available for all variants of 2D visual content in the context of 3D reconstruction. Especially in light of the matrix of copyright and related rights that may reside with 2D visual content outlined above, there may further be a need for multiple exceptions and limitations to address both an author's copyright and a rightsholder's related rights. Appreciating this, the analysis of key exceptions and limitations under the EU copyright law intends to assess whether 3DRTs can be understood to be (part of) a broader paradigm of *ex lege* permitted 'transformative uses'. To that end, the following exceptions were identified as especially relevant for addressing the (transformative) use of 2D visual content within 3D content by means of 3D reconstruction: the quotation exception,[144] and the joint parody, caricature and pastiche exceptions.[145]

II. Applicability of Quotation Exception

52 Formally, the quotation exception is an optional exception *inter alia* to the right of reproduction under the EU copyright *acquis*.[146] It is in the unique position of being mandatory not at the EU level, but via the Berne Convention.[147] In order for the use

140 See section B.

141 In EU legal jurisdiction, copyright license agreements are generally understood to fall under the ambit of the Member State contract law, in conjunction with the harmonised conflict of laws rules (i.e. Rome and Brussels Regulations); *see* however, Art18-23 CDSM Directive.

142 Even if it is up to the court of each case to determine whether the three-step-test is successful in a given case and without ignoring the lack of clarity in its application from an EU Copyright law perspective (Paulien Wymeersch, 'EU Copyright Exceptions and Limitations and the Three-Step Test: One Step Forward, Two Steps Back', (2023) 72 GRUR International, 631–642), it could be already noted that the use of works for the purposes of 3D reconstruction is not commonly exploited by rightsholders (e.g. via established licensing practices and the existence of a market for 2D visual content for 3D reconstruction) and, consequently, it could be assumed that the use of 3DRTs does not in principle run counter to normal exploitation, nor the legitimate interests of authors. This is not to prejudice future changes based on prevailing practices.

143 It should be noted that this is largely a case-by-case contextual concern. For the purposes of the following analysis, the analysis presumes a separation of the layers of rights.

144 Art5(3)(d) InfoSoc Directive. It should be noted, however, that quotation does not typically imply 'transformative use' of the quoted work.

145 Art5(3)(k) InfoSoc Directive. Hereinafter, the term "exception" will be used for reasons of brevity.

146 As well as the right of making available to the public and communication to the public under Art3 InfoSoc Directive (Art5(3)(d) InfoSoc Directive).

147 Art 10(1) Berne Convention.

(reproduction and communication to the public) of a work to qualify as a quotation under Art5(3)(d) InfoSoc Directive, it would need to pursue either the purpose (1) of illustrating an assertion, (2) of defending an opinion or, (3) of allowing an intellectual comparison between that work and the assertions of that user.[148]

53 Although Member States[149] enjoy a quite wide margin of discretion in implementing this exception,[150] it is quite unlikely that most cases of 3D reconstruction would be covered by it. Indeed, the use of 2D content for the reconstruction of 3D visual content is not inherently tied to assertions nor opinions, even where such assertions are expressed in the employed 2D visual content. Whether there is merit in the claim that a comparison between input 2D content and the assertions of the creator of the 3D visual content is limited by the *form* of 3D visual content, this is not necessarily achieved by the relevant 3DRT. This is not to claim that there are no cases where assertions contained by 2D visual content can be quoted in a piece of 3D visual content, yet this is unlikely to occur through the technical reconstruction act.

54 Nonetheless, the quotation exception reflects broader concerns of legal interpretation, but may still be sufficiently "flexible",[151] and thereby relevant for 3DRTs. These include the general principles of EU law,[152] the balance of fundamental rights including the freedom of expression,[153] the objectives of the InfoSoc Directive,[154] and the three-step test,[155] From these perspectives, it is however unlikely to be considered proportional to perceive the transformative use of 2D input within 3D output in the context of 3D reconstruction as a form of quotation, especially where any engagement with potential assertions of 2D visual content is thin. It is also unlikely that the freedom of expression is affected where users do not have access to the exception for the purposes of 3D reconstruction. From a generous interpretation of the scope of 3DRTs, certain 2D inputs may be integrated in a 3D output in such a manner to illustrate certain assertions made by a 2D input – although it must be assumed that would need to be strictly envisioned from the creator of the 3DRT as such, thus shifting consideration to the design and operation of the 3DRT. Further, an intellectual comparison may actually be made more difficult by way of implementation of a 3DRT, whereas – save exceptionally overt cases – defending an opinion should be seen as particularly far-fetched interpretations of the quotation exception. Overall, the quotation exceptions, beyond a few potentially creative applications, is simply not a suitable fit for cases of 3D reconstruction.

III. Applicability of Caricature, Parody and Pastiche Exceptions

55 A case could be made that 3DRTs comprise either forms of caricature, parody and/or pastiche. These three joint exceptions (or 'legal triplets'[156]) are optional exceptions to the right of reproduction under the InfoSoc Directive,[157] which are not subject matter-specific and thus may apply to a broad range of (and various uses of) 2D visual content.[158] Although the literature on this exception highlights that some Member States do not differentiate between the three forms,[159] only the concept of "parody" has been interpreted as an autonomous concept of EU law by the CJEU thus far.[160] Indeed, even at

148 Case C-516/17 *Spiegel Online* ECLI:EU:C:2019:625, para 28.

149 Formally, these are Member States of the Berne Union as well as of the European Union.

150 Case C-469/17 *Funke Medien* ECLI:EU:C:2019:623, para 43.

151 Alan Hui and Frédéric Döhl, 'Collateral Damage: Reuse in the Arts and the New Role of Quotation Provisions in Countries with Free Use Provisions After the ECJ's Pelham, Funke Medien and Spiegel Online Judgments' (2021) 52 IIC - International Review of Intellectual Property and Competition Law 852, 886.

152 *Spiegel Online*, para 34; *Funke Medien*, para 49.

153 *Spiegel Online*, para 38; *Funke Medien*, para 53.

154 *Spiegel Online*, para 35; *Funke Medien*, para 50.

155 *Spiegel Online*, para 37; *Funke Medien*, para 52.

156 Péter Mezei and others, 'Oops, I Sampled Again … the Meaning of "Pastiche" as an Autonomous Concept Under EU Copyright Law' (2024) 55 IIC - International Review of Intellectual Property and Competition Law 1225, 1254.

157 As well as the right of making available to the public and communication to the public under Art3 InfoSoc Directive (Art5(3)(k) InfoSoc Directive); an interesting development concerning this exception in the context of the right to communication to the public is the new regime for online content-sharing service providers under Art17(7) CDSM Directive, which establishes that Member States are required "to ensure users in each Member State are authorised to upload and make available content generated by themselves for the specific purposes of quotation, criticism, review, caricature, parody or pastiche" (Case C-401/19 *Poland v European Parliament and the Council* ECLI:EU:C:2022:297, para 87).

158 It should be noted that parody, in particular, is often closely linked with freedom of expression, meaning that although the exceptions are optional, there are paths available for benefiting from parody exceptions across Member States and, especially, for Member States with a strong fundamental rights tradition in their jurisprudence, cf. Caterina Sganga and others, 'D2.3 Copyright flexibilities: mapping and comparative assessment of EU and national sources' (reCreating Europe, 16 January 2023) <zenodo.org/records/7540511> accessed 13 August 2025, 464.

159 Cf. regarding the French or Italian implementation of the exceptions, Mezei and others (n 156) 1233-1239.

160 Case C-201/13 *Deckmyn* ECLI:EU:C:2014:2132, para 17.

the national level, caricature and pastiche have not been the subject of a substantial number of judicial decisions.[161] Together, these three exceptions – treated separately[162] – may be especially accessible for the implementation of certain 3DRTs.

1. Parody

56 Thus far, only the parody component of these three joint exceptions has been subject to interpretation by the CJEU. Specifically, in the *Deckmyn* case, the Court held that parody has two essential characteristics, namely that the parody: (1) evokes an existing work while being noticeably different from it, and;[163] (2) constitutes an expression of humour or mockery.[164] Despite setting an arguably well-constructed legal standard,[165] this may not be an especially viable exception applicable to 3DRTs. On the one hand, it is unlikely that specific 2D visual content is evoked by a resulting 3D visual content output by the technique. Noticeable differences would, of course, be quite evident – one piece of content is 2D whereas the other is 3D – though this point becomes moot were the relevant 2D visual content used for the 3D reconstruction is not evoked in the first place. In any event, it is highly unlikely that 3D visual content is necessarily an expression of humour or mockery. As the name 3D "reconstruction" would suggest, the idea of such techniques is for the 3D visual content to retain a higher degree of fidelity to the represented object depicted in the 2D input. Although there may be marginal cases were such a change in dimensions occasions a humorous impression, especially where reconstructions are less refined, it is doubtful that these are specific expressions of the implementation of the 3D reconstruction technique, whether these are intended or not.

57 The parody exception seems an unlikely fit for 3D reconstruction. Nevertheless, of the three joint exceptions, there presently exists the highest level of legal certainty at the EU level for parodies, and its jurisprudence may provide important analogous interpretative guidance.

2. Caricature

58 Caricature has received far less scholarly and legal attention than its sibling exceptions – a general understanding of it and how it can apply to 3D content based on 2D visual content is nevertheless helpful. Definitions of "caricature" may include some element of representing an underlying work or subject matter in a ludicrous, grotesque or exaggerating manner.[166] Technical glitches aside, whether a 3D reconstruction is ludicrous or grotesque is difficult to pin down. By analogy, the CJEU reached its definition of parody by determining, on the one hand its evocative characteristics and, on the other, its constitutive-expressive characteristics.[167] The evocative characteristics of a caricature should be similarly ascertainable as for a parody – evoking an existing work. However, caricature is not necessarily an expression of "ludicrousness" nor "grotesqueness" akin to the way a parody is an expression of humour or mockery. Indeed, a caricature may simply be an exaggeration. 3D reconstructions may achieve an expression of exaggeration more readily than e.g. some expression of ludicrousness. This is in the nature of imperfect techniques that, for instance, misinterpret certain spatial dimensions of an underlying object, without there being an expressive element of ludicrousness.

59 Caricature may find application in certain applications of 3DRTs. A parallel may be sought, e.g. in face-manipulation applications, including deepfakes, which may also be used to facilitate the creation of "ludicrous" expressions of underlying 2D visual material.[168] In the absence of authoritative legal interpretation, however, the question of 3D reconstruction as a case of caricature remains moot.

161 Mezei and others (n 156) 1243.

162 We thus align with the interpretation of the European Copyright Society that these sibling exceptions are best given "individual meaning and function" (European Copyright Society, 'Opinon of the European Copyright Society on CG and YN v Pelham GmbH and others, Case C-590/23 (Pelham II)' (*European Copyright Society*, 6 November 2024) <https://europeancopyrightsociety.org/portfolio/ecs-opinion-on-cg-and-yn-v-pelham-gmbh-and-others-case-c-590-23-pelham-ii/> accessed 11 August 2025, 9).

163 Specifically, the parody need not "display an original character of its own" except that it is noticeably difference from the original parodied work (*Deckmyn,* para 21).

164 Case *Deckmyn,* para 20.

165 Jongsma (n 76) 652.

166 Cf. "Grotesque or ludicrous representation of persons or things by exaggeration of their most characteristic and striking features." or "A portrait or other artistic representation, in which the characteristic features of the original are exaggerated with ludicrous effect." (*Oxford English Dictionary*, s.v. "caricature (*n.*), senses 1.a and 2.a," June 2024, <https://doi.org/10.1093/OED/6801039049> accessed 13 August 2025).

167 *Deckmyn*, para 20.

168 Although such applications bear other legal risks, cf. Bart van der Sloot and Yvette Wagensveld, 'Deepfakes: Regulatory Challenges for the Synthetic Society' (2022) 46 Computer Law & Security Review 105716.

3. Pastiche

60 Pastiche may yet be the most promising of the three sibling exceptions. In a request for preliminary rule of 2023, the German Supreme Court has posed two questions to the CJEU concerning the specific provision regarding pastiche.[169] First, it asked whether pastiche is "a catch-all clause at least for artistic engagement with a pre-existing work or other object of reference, including sampling" and whether pastiche is subject to "limiting criteria, such as the requirement of humour, stylistic imitation or tribute". Secondly, it asked whether the pastiche exception requires a "determination of an intention on the part of the user to use copyright subject matter for the purpose of a pastiche".[170]

61 In light of the CJEU's interpretation of parody, pastiche would also need to be interpreted in light of its "usual meaning in everyday language".[171] The European Copyright Society, in its contribution addressing the 2023 preliminary reference, has indicated that there are at least two general English language definitions of the word "pastiche", based on its review of leading dictionaries,[172] i.e.:[173]

- *A work of art that imitates the style of another artist or period;*
- *A work of art that mixes styles, materials, etc.*

62 The former definition must, however, be rejected from the perspective of copyright law. This is despite the fact that this definition seems to be favoured in a footnote by AG Szpunar in *Pelham*, highlighting that pastiche would encompass the "imitation of the style of a work or an author without necessarily taking any elements of that work".[174] On the contrary, as shown by Mezei *et al.* if pastiche were to cover works that incorporate the style of other works, it would be a superfluous copyright exception, not least because style is not copyright-protectable.[175] As highlighted by Casanova "both [pastiche and sampling] refer to a combination of elements that creates something new".[176] Recalling that *Pelham* only addressed a potential application of the quotation exception – rejected because it was not possible to identify the work concerned by the quotation in question[177] – sampling may yet comprise an important case of pastiche.

63 This contextual reading would lead the interpretation closer to the second definition of pastiche highlighted above, specifically the understanding of pastiche as "a work that mixes materials". *Prima facie*, this may be linked with 3DRTs, to the extent that the generation of 3D outputs draws upon a variety of input pieces of 2D visual content, whose expression could be potentially reproduced within the 3D output. There are at least three implications of these considerations applicable to the process of 3D reconstruction.

64 Firstly, as argued in Section C, it should be recalled that such a pastiche-based 'transformative' use assumes that the use of 2D visual content within a 3D output does *not* equate to a use mere facts and data that are contained within that visual content. In addition, as long as a single example of 2D content is rendered unrecognisable by a 3D reconstruction technique, the applicability of an exception may not need to be raised.

65 Secondly and following the ordinary understanding of pastiche as reflected in the second proposed definition above, the pastiche exception covering reproductions[178] could be relevant where the 3D output reproduces parts drawn from a variety of sources, independent of considerations of stylistic incorporations. The "parts" of a singular underlying 2D content that are taken (i.e. reproduced) are the parameters that the 3D reconstruction technique requires and the protected elements that are reused within a 3D output, whereas most current techniques require multiple – and potentially a sufficient variety of – 2D inputs.

66 Finally, and following this understanding of pastiche, further legal questions come to the fore. For instance, the question of what "parts", quantitatively and qualitatively, a new work needs to incorporate in order to be qualified as a pastiche, is not definitively answered. Indeed, the EU copyright *acquis* may be in need of finding further case-by-case guidance, including such that the balancing of fundamental rights at stake or the three-step test are duly taken into account.

67 It should be borne in mind that such an interpretation of pastiche would also avoid inelegant overlaps with

169 Case C-590/23 *Pelham,* also referred to as "*Pelham II*".

170 As highlighted by Mezei and others, it would be highly unusual if such an intention requirement were to be affirmed by the Court (Mezei and others (n 156) 1249-1250); this is not considered here.

171 *Deckmyn*, para 19.

172 The Oxford English Dictionary, the Merriam-Webster English Dictionary and the Collins English Dictionary.

173 European Copyright Society (n 162) 6.

174 Case C-476/17 *Pelham* ECLI:EU:C:2018:1002; Opinion of AG Szpunar, fn. 30.

175 Mezei and others (n 156) 1226.

176 Piero Casanova, 'Permissible Pastiche in Pelham II: A proposed response' (*Kluwer Copyright Blog*, 11 April 2024) <https://copyrightblog.kluweriplaw.com/2024/04/11/permissible-pastiche-in-pelham-ii-a-proposed-response/> accessed 11 August 2025.

177 *Pelham*, para74.

178 And communications to the public.

the extant demarcation of parody. As Mezei *et al.* argue, the InfoSoc Directive "groups the three forms of expression together because of their nature as transformative expressive uses, even though they have *different purposes* and thus *different characteristics*" (emphasis added).[179] By extension, then, pastiche must not pursue the same purposes as parody, and may therefore pursue transformative purposes beyond humour or mockery. The transformation of 2D visual content via a 3D reconstruction technique, even where the protected expression of 2D visual content is recognisable in the output 3D content, especially as it may be implemented for a variety of purposes, may therefore fall under the test of pastiche yet to be determined by the CJEU.[180]

E. Conclusion

68 This paper assessed AI-based generation of 3D visual content as an output, based on 2D content as input(s), by means of 3DRTs from the perspective of the EU copyright *acquis*. In doing so, we argue that, whereas 3D reconstruction techniques may generally involve copyright-relevant reproductions of 2D content/inputs at the training stage (training of a 3D reconstruction technique as an AI model), this is not necessarily the case at the output stage. Indeed, it has been asserted that 3D output is likely an independent, non-derivative output, to the extent that it will routinely reproduce non-protectable information contained in the 2D inputs, especially when 2D inputs' level of originality is low. Accordingly, the position that 3D reconstruction models would not resemble '3D collage machines', but rather 'virtual 3D printers', has been defended, as long as the output stage of 3D reconstruction employs unprotected information embodied in the 2D content and relating with the represented object. In addition, we demonstrate that some exceptions and limitations are of potential merit for covering some reproductions of 2D content undertaken at the training stage (TDM exceptions) and some cases of possible (transformative) 2D content use for 3D reconstruction purposes (pastiche exception).

69 The undertaken analysis and findings denote further open questions and challenges. In particular, the applicability of existing exceptions in novel digital uses, including particular models and techniques of the AI field, such as the examined 3DRTs, is not always straightforward. As both the TDM and pastiche exceptions may be interpreted to benefit such techniques, we may yet observe novel creative uses, especially in the context of virtual worlds and the development of extended reality (XR) technologies. Nevertheless, especially in light of increased regulatory scrutiny of generative tools, including those comprising AI components,[181] as well as the yet uncertain judicial interpretation of these exceptions, these avenues may change in nature in the near future. On top of this, the subordination of 3DRTs under the categories of EU AI Act and the imposition of relevant obligations connected with their deployment and making available to the market needs further assessment.

70 Moreover, copyright law concerns will still govern 3D reconstruction, even if 3D content may be qualified as an independent output, in cases where the represented object within 2D content is *per se* a protected subject matter (e.g. a copyrighted architectural work or a sculpture). This is because the resulting 3D visual content will likely constitute a reproduction of that underlying represented object. These downstream uses raise further questions regarding the lawful implementation of 3D reconstruction techniques and especially, whether any existing exception or limitation could possibly cover this use.

71 Lastly, the unique challenges raised by 3DRTs, as outlined in this paper, may be an important opportunity for addressing the EU copyright *acquis* prevailing uncertainties. In light of ongoing discussion on the future agenda for EU copyright law,[182] difficult cases of 'transformative' use are especially instructive. This should include addressing the fractured position of the right of adaptation and of the concept of transformative use within the EU copyright *acquis.*[183]

179 Mezei and others (n 156) 1228.

180 In the interim, the Advocate General has proposed the definition of 'pastiche' as "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" (Case C-590/23 *Pelham II* ECLI:EU:C:2025:452, Opinion of AG Emiliou, para 133).

181 Cf. AI Act.

182 Caterina Sganga, 'Is There Still a Policy Agenda for EU Copyright Law?' (2023) 54 IIC - International Review of Intellectual Property and Competition Law 1407; Caterina Sganga, 'The Past, Present and Future of EU Copyright Flexibilities' (2024) 55 IIC - International Review of Intellectual Property and Competition Law 5; cf. regarding the research-copyright nexus specifically: Martin Senftleben and others, 'Towards a European Research Freedom Act: A Reform Agenda for Research Exceptions in the EU Copyright Acquis' (2025) IIC - International Review of Intellectual Property and Competition Law <https://doi.org/10.1007/s40319-025-01604-6> accessed 11 August 2025.

183 Cf. Péter Mezei, 'Knock, Knock, Knockin' on Tranformativeness' Doors' (2024) 55 IIC - International Review of Intellectual Property and Competition Law 495.

Portraits as Trademarks: A Doctrinal and Practical Analysis of EUIPO Case Law on Facial Image Signs

by **Barna Arnold Keserű** *

Abstract: This article examines the increasingly relevant and doctrinally complex question of whether photorealistic human faces can serve as valid and protectable trademarks under European Union law. Drawing on updated empirical data, evolving EUIPO case law, and critical third-party interventions—including the amicus curiae brief submitted by INTA in the Smit case—the study interrogates the normative and institutional limits of trademark distinctiveness when applied to facial images. The research applies to doctrinal legal methodology supported by empirical observations and comparative references, with a focus on European legal sources and procedural developments. It evaluates the registrability, scope of protection, and practical enforceability of facial image trademarks in light of established principles of trademark law, including the requirement of distinctiveness, genuine use, and the limitations arising from personality rights and public interest. Particular emphasis is placed on the conceptual distinction between personal identity and commercial origin, the merger of service and sign in the context of modeling services, and the doctrinal thresholds for enhanced protection based on reputation. The findings indicate that while facial trademarks are gradually gaining acceptance, their registration raises unresolved theoretical and practical challenges that requires careful legal scrutiny and, potentially, legislative clarification to ensure coherence with the foundational objectives of trademark protection.

Keywords: Trademark, Right to Image, Portrait Marks, EUIPO

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A. Introduction

1 The question of whether photorealistic facial images can be protected under trademark law remains a subject of continuing legal and practical relevance. Although human faces are among the most distinctive features of personal identity, their transformation into legally protectable commercial signs raises profound doctrinal, normative, and institutional questions. The core issue is whether the legal framework governing trademarks – originally developed to serve the interests of commercial source identification – can or should be extended to accommodate images of human faces in the absence of textual or graphic embellishments. This trajectory forms part of a broader turn towards non-traditional signs and multisensory branding, driven by intensified competition and affect-based consumer decision-making; brand communication increasingly seeks to engage multiple senses rather than relying on a single visual cue.[1] The importance of non-traditional signs has grown with the advent of fourth industrial revolution, high level of digitalization and artificial intelligence, which gradually transforming our lives.[2]

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1 Lilla Fanni Szakács, 'Új típusú védjegyek - középpontban a színvédjegyek' (2013) 8 Iparjogvédelmi és Szerzői Jogi Szemle 40, 48.

2 Máté Frank, 'Contractual Dilemmas of Smart Contracts: Information Society Versus Contract Law' (2023) 15 Jog Állam Politika: Jog- És Politikatudományi Folyóirat 63, 63.

2 This article builds upon prior research that explored whether the right to one's facial image, as traditionally protected under private law, can provide sufficient legal safeguards against unauthorized commercial use, thereby potentially obviating the need for trademark protection. That earlier study provided a systematic comparison between personality rights and European trademark law across twelve legal dimensions, concluding that while trademark law may offer advantages in terms of transferability, enforcement, and temporal continuity, it also risks unsettling normative assumptions about personal autonomy and human dignity.[3] That article was based on an empirical review of European Union trademark applications submitted up to 26 November 2023, focusing exclusively on those consisting of photorealistic human faces without any additional elements such as names, logos, or ornamental designs. The findings suggested a rising number of such registrations, particularly following 2021, with a notable concentration in fashion-related and model-portrait applications. Since the time of that original data collection, only a modest number of new applications have been submitted that fit this narrow definitional category - i.e., trademarks consisting solely of photorealistic facial images without any clearly distinctive or dominant secondary elements. Specifically, only two new applications featuring female faces[4] and five with male faces[5] have been filed until 28.07.2025. There have been no new applications involving children's faces that meet the same criteria.

3 Despite the relative novelty of this phenomenon, the trademark protection of faces is no longer an abstract legal possibility but a steadily expanding reality. Empirical data shows a moderate increase in applications for such signs within the European Union Intellectual Property Office (hereinafter EUIPO), particularly since 2021, with dozens of registered trademarks consisting exclusively of facial images - many of them representing models, athletes, or AI-generated personas. This trend is doctrinally relevant, as it tests the limits of what constitutes a distinctive sign under Article 4 of Regulation (EU) 2017/1001 (hereinafter EUTMR) and challenges the applicability of the absolute grounds for refusal set out in Article 7(1) of EUTMR.

4 The ongoing relevance of this issue is underscored by several legal proceedings, including the pending *Johannes Hendricus Maria Smit v EUIPO* case before the Grand Board of Appeal.[6] In that matter, the registrability of a portrait photo as an EU trademark has become a point of legal contention, generating extensive analysis and commentary. Notably, the International Trademark Association (hereinafter INTA) submitted a third-party amicus curiae brief in the appeal proceedings, emphasizing the broader implications of facial image trademarks for trademark law, personality rights, and public policy. INTA's intervention specifically addresses the conceptual tensions between a face as a personal identifier and as a commercial signifier, and it seeks to influence the development of coherent, consistent adjudicatory standards. An additional level of the problems – which remains outside of the scope of the article – when facial images are used in virtual spaces like video games or metaverse.[7]

5 This study aims to extend the existing analytical framework by integrating recent case law, policy statements, and stakeholder interventions into a deeper normative and doctrinal evaluation. Particular attention will be devoted to the *Smit* case and the INTA brief, which offer valuable insights into the evolving jurisprudence and institutional perspectives concerning face-based trademarks. The central question remains whether the legal recognition of human faces as trademarks represents a permissible evolution of intellectual property norms or a conceptual overreach with far-reaching consequences for the balance between commercial and personal rights.

B. Methods

6 This study applies a doctrinal legal research methodology, supported by case law analysis. Its primary aim is to assess the evolving legal framework governing the registrability of photorealistic human faces as trademarks within the European Union. Applications where the image is accompanied by text, stylized distinctive background, graphical enhancement, or any design elements that may independently carry distinctive force are excluded from the scope of this study. The reason for this

3 Barna Arnold Keserű, 'Trademark Protection for Faces? A Comprehensive Analysis on the Benefits and Drawbacks of Trademarks and the Right to Facial Image' (2024). A similar investigation was carried out from an American perspective by Jennifer E Rothman, 'Navigating the Identity Thicket: Trademark's Lost Theory of Personality, the Right of Publicity, and Preemption' (2021) 135 Harvard Law Review 1271.

4 The female face applications: 019208620 is already published, 019116918 is under examination at the time of writing this article.

5 The male face applications: 019088469 application is withdrawn, 019094091 and 019146115 applications are already registered, 019120537 and 019138872 applications are currently under examination.

6 EUIPO Grand Board of Appeal, Case R 50/2024-2.

7 Péter Szalai, 'A képmásvédelem egyes kérdései a virtuális térben' in Gergely G. Karácsony (ed), *A videojátékok jogi kérdései* (Széchenyi István Egyetem 2021).

methodological decision is simple: once such additional elements are introduced, the legal evaluation of distinctiveness becomes multifactorial, and it is no longer clear whether the facial image itself plays a decisive role in the overall perception of the sign.

7 The article builds upon earlier research, while integrating newly emerging legal materials and procedural developments. The method is threefold: (i) normative analysis of relevant EU legal sources and jurisprudence; (ii) qualitative assessment of selected administrative and judicial decisions; and (iii) contextual interpretation amicus curiae brief submitted by the INTA in the *Smit v EUIPO* case. The trademark case law of the EU is not only relevant for EU countries but also for other European or overseas countries as in recent years the European regulatory power has enhanced and exported by the extraterritorial scope of GDPR, DMA and AI Act, which places a higher global awareness on the EU legislation and case law.[8]

8 This brief provides a unique perspective on the institutional concerns of trademark professionals, brand owners, and IP scholars. Its arguments are examined not merely as advocacy positions, but as indicators of evolving interpretative frameworks and policy orientations within the trademark community.

9 The INTA brief is assessed using both legal-normative and policy-analytical tools. The study critically evaluates INTA's reasoning concerning the distinctiveness of facial images, their eligibility as signs, and the interaction between trademark rights and personality rights. Particular focus is given to the extent to which INTA's intervention aligns with or challenges the prevailing doctrines of EU trademark law.

10 The study further examines selected case decisions of the EUIPO Boards of Appeal that reflect pivotal developments in the interpretation of portrait marks, including decisions concerning Dutch models (Maartje Verhoef, Rozanne Verduin, Yasmin Wijnaldum, Jill Kortleve, and Puck Schrover) as well as the *Smit* case, currently pending before the Grand Board of Appeal. These decisions are analyzed in terms of the legal reasoning adopted, internal consistency, and doctrinal coherence.

11 It must be acknowledged that the study is limited to the European Union legal and institutional context. Nonetheless, the core doctrinal questions concerning distinctiveness, subject matter, and the interplay between IP and dignity are broadly relevant across legal systems.

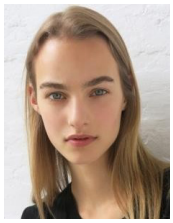
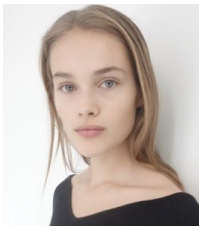
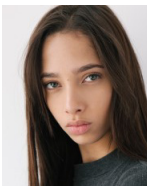
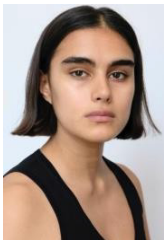
C. Recent EUIPO Case Law

12 Although the number of trademark applications consisting solely of photorealistic human faces remains limited, the legal significance of these applications has increased considerably in recent years. The decisions rendered by the Boards of Appeal of the EUIPO demonstrate a clear trend towards the acceptance of such portrait marks, even in cases where the signs lack any textual, figurative, or design-based elements that could otherwise enhance their distinctive character.

13 The table below presents a selection of recent cases that illustrate this trend. In each of these instances, the application concerned a photorealistic depiction of a human face, typically styled as a passport-style portrait, and devoid of names, logos, stylized backgrounds, or additional graphic components. At the first instance, the EUIPO Examiners uniformly rejected these applications based on the alleged lack of inherent distinctiveness, often citing the general assumption that photographs of faces are commonly used in advertising and thus do not serve a trademark function.

14 However, upon appeal, the respective Boards of Appeal systematically overturned these refusals. In each case, the Boards concluded that the facial image in question did possess sufficient distinctiveness to be eligible for registration as a European Union trademark.

8 Gábor Hulkó, János Kálmán and András Lapsánkszy, 'The Politics of Digital Sovereignty and the European Union's Legislation: Navigating Crises' (2025) 7 Frontiers in Political Science 1, 1.

The Sign	Examiner's Decision	Board of Appeal Decision
 EUTM 14679351	Refused according to EUTMR Article 7 (1)(b)(c) due to lack of distinctiveness and exclusively descriptive signs.	Nulled the decision on 16/11/2017, the trademark is registered.[9]
 EUTM 17916623	Refused according to EUTMR Article 7 (1)(b) due to lack of distinctiveness.	Nulled the decision on 23/10/2019, the trademark is registered.[10]
 EUTM 17358458	Refused according to EUTMR Article 7 (1)(b) due to lack of distinctiveness.	Nulled the decision on 19/05/2021, the trademark is registered.[11]
 EUTM 17953534	Refused according to EUTMR Article 7 (1)(b) due to lack of distinctiveness.	Nulled the decision on 19/05/2021, the trademark is registered.[12]
 EUTM 18640603	Refused according to EUTMR Article 7 (1)(b) due to lack of distinctiveness.	Nulled the decision on 04/12/2023, the trademark is registered.[13]

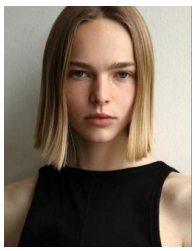
9 EUIPO, Decision of the Fourth Board of Appeal of 16 November 2017, in the case R 2063/2016-4 (EUTM 014679351)

10 EUIPO, Decision of the First Board of Appeal of 23 October 2019, in the case R 2574/2018-1 (EUTM 17916623).

11 EUIPO, Decision of the Fourth Board of Appeal of 19 May 2021, in the case R 378/2021-4 (EUTM 018864324).

12 EUIPO, Decision of the Fourth Board of Appeal, 19 May 2021, in the case R 468/2021-4 (EUTM 017953534).

13 EUIPO, Decision of the Fourth Board of Appeal of 4 December 2023, in the case R 1704/2023-4 (EUTM 018640603).

 EUTM 18864324	Refused according to EUTMR Article 7 (1)(b) due to lack of distinctiveness.	Nulled the decision on 30/01/2024, the trademark is registered.[14]
 EUTM application 014711907	Refused according to EUTMR Article 7 (1)(b)(c) due to lack of distinctiveness and exclusively descriptive signs.	Currently pending before the Grand Board of Appeals.

1. Table The EUIPO case law on portrait trademarks filed before 2024. Compiled by the author.

15 This consistent nullification of first-instance decisions suggests an evolving institutional approach within the EUIPO, one that is increasingly open to the registration of portrait marks, provided that the face depicted is sufficiently specific and does not merely reproduce a generic or symbolic human figure. It also underscores a growing divergence between the conservative stance of examiners – who tend to rely on established refusal criteria – and the liberal analysis applied by the Boards of Appeal. For this reason, the appeal in the *Smit v. EUIPO* case – the last row in the table above – was referred from the Second Board of Appeal to the Grand Board of Appeals, which body has the jurisdiction in the legally difficult or important cases.[15] The divergent case law requires some guidance and uniformization.

16 These decisions have not remained without systemic effect. In the wake of the consistent rulings of the Boards of Appeal, the EUIPO's examination practice appears to be undergoing a gradual but noticeable transformation. While initial rejections of facial image trademarks were previously the norm, recent applications that similarly consist solely of photorealistic portraits – free from additional distinctive elements – have increasingly proceeded through the registration process without significant objection or delay.

17 Against this backdrop, the pending decision in the *Smit* case – one of the last unresolved applications filed under the earlier framework – acquires particular significance. As the case has been referred to the Grand Board of Appeal, its outcome is expected to carry precedential weight well beyond the individual application. The decision may serve as a capstone to the evolving jurisprudence on facial trademarks, either confirming the doctrinal shift initiated by the Boards of Appeal or redefining its contours. In this sense, the *Smit* case has the potential to mark the closure of a transitional period in EUIPO practice, providing legal clarity and guidance for future assessments of whether and when a human face can function as a protectable trademark sign.

D. The Boards of Appeal on the Absolute Grounds of Refusals

18 The Boards of Appeal, in their recent rulings mentioned above rendered in the course of appeals concerning facial image trademark applications, have consistently taken the following position regarding the applicability of absolute grounds for refusal. The wording of the decisions is almost identical.

19 The signs examined in the given cases are clearly and unmistakably the image of

14 EUIPO, Decision of the Fourth Board of Appeal of 30 January 2024, in the case R 2173/2023-4 (EUTM 018864324).

15 EUIPO Second Board of Appeal, Interim Decision in the case R 50/2024-2 (EUTM 14711907) (26 September 2024).

specific individuals, featuring their unique facial features, presented in the format of passport-style photographs. As such, it cannot be presumed that the relevant public would perceive these images as descriptive of the goods or services within the meaning of Article 7(1)(c) of EUTMR.[16] This is in line with the theory that allowing appropriation of nondistinctive elements would effectively confer exclusivity over the information that lowers search costs for rivals and consumers, so the social result would be higher prices and lower output.[17] However, according to the Boards, it is not evident that the relevant public, upon seeing the face of these women, would immediately associate the image with the target audience of the goods or services. In fact, all possible goods and services – by their nature – are directed either at a male or female audience, and the depiction of a particular woman does not automatically lead to the conclusion that the products are intended for women. Numerous female fashion designers, for instance, release men's collections under their own name.[18]

20 Contrary to the examiners' opinion, according to the Boards, it is reasonable to assume that the relevant public would perceive the sign as an indication of the commercial origin of the goods and services in question – that is, as referring to the person depicted. In doing so, the sign would be capable of performing the essential function of a trademark. It is not necessary for a trademark to provide exact information about the identity of the manufacturer of the goods or the provider of the services. It is sufficient that the trademark enables the relevant public to distinguish the goods or services bearing the mark from those of a different commercial origin.[19]

21 The Boards acknowledged that assessing the distinctiveness of photographs depicting individuals may be more complex.[20] However, this does not imply that trademarks consisting of such images are automatically excluded from registration, provided that the image can be readily interpreted as indicating the commercial origin of the relevant goods or services, and that the public is able to distinguish them without a risk of confusion from those offered by other undertakings. In addition to a person's first and last name, the depiction of their face – especially in the format of a passport-style photograph – may serve to identify that individual and distinguish them from others. As such, it is capable of fulfilling the core function of a trademark, namely that of guaranteeing origin.

16 EUIPO Fourth Board of Appeal, Case 2063/2016-4, paras19-20.; Case R 468/2021-4, para 16.; Case R 378/2021-4, para 16.; Case R 1704/2023-4, para 21.; Case R 2173/2023-4, para 21.

17 William M Landes and Richard A Posner, 'Trademark Law: An Economic Perspective' (1987) 30 Journal of Law & Economics 265, 289.

18 EUIPO Fourth Appeal Board, Case 2063/2016-4, para 21.

19 EUIPO Fourth Board of Appeal, Case 2063/2016-4, para 30; Case R 378/2021-4, para 10; Case R 468/2021-4, para 10; Case R 2173/2023-4, para 13; Case R 1704/2023-4, para 13.

20 For the CJEU case law on the assessment of distinctiveness see Péter Szalai, *A megkülönböztető képesség jelentése a védjegyjogban* (Universitas-Győr Nonprofit Kft 2015) 101–131.

E. Theoretical and Practical Concerns of Portrait Trademarks

I. Can a Human Face Perceived as a Sign?

22 Trademark law, in its most essential function, serves the purpose of distinguishing the goods or services of one undertaking from those of another.[21] The mark actually sells the goods. And, self-evidently, the more distinctive the mark, the more effective is its selling power.[22] Trademarks serve as essential tools of communication between producers and consumers by conveying concise, symbolic information about the characteristics and origin of goods, thereby influencing purchasing decisions across various sectors of economic and social life.[23] This distinguishing and informative function – frequently referred to as the *source-identifying function* – is not only doctrinally fundamental but also serves as the ontological justification for trademark protection as a branch of intellectual property law.[24] Both the EUTMR and the Trademark Directive (EU) 2015/2436 (hereinafter EUTMD) emphasize this principle: only those signs are eligible for registration which are capable of distinguishing goods or services in the course of trade.[25] Within this conceptual framework, the question arises whether a human face, particularly in the form of a photorealistic portrait, is capable of fulfilling this basic legal function. Is the human face, in itself, or as a photo, a sign in the legal

21 Case C-39/97, *Canon Kabushiki Kaisha v Metro-Goldwyn-Mayer Inc.* ECLI:EU:C:1998:442, para 28.

22 Frank Isaac Schechter, 'The Rational Basis of Trademark Protection' (1927) 40 Harvard Law Review 813, 819.

23 Case C-236/08 *Google France SARL and Google Inc. v Louis Vuitton Malletier SA* ECLI:EU:C:2010:159, para 77; Péter Szalai, 'The Possibilities of Trademark Law in the Service of Sustainable Development, with an Outlook on the Possibilities of State Involvement' (2024) *Rechtskultur: Zeitschrift für Europäische Rechtsgeschichte* 565, 569.

24 Anette Kur and Thomas Dreier, *European Intellectual Property Law* (Edward Elgar 2013) 157.

25 EUTMR Art. 4(a), EUTMD Art. 3(a).

sense? Can it reliably and unequivocally indicate the commercial origin of goods or services?

23 This issue is particularly complex in the context of the European Union, a jurisdiction comprising 27 Member States and a population of approximately 450 million individuals. In such a vast and culturally diverse market, the threshold for what counts as inherently distinctive is correspondingly high. The average consumer is presumed to possess an ordinary level of attention, but not necessarily the capacity to recall or differentiate subtle visual elements with high precision.[26] It is particularly true when the sign in question lacks textual or stylised features.

24 Although Court of Justice of the European Union (hereinafter CJEU) has not yet ruled directly on the registrability of facial images, its jurisprudence on distinctiveness provides general principles that apply to all categories of signs. In landmark cases such as *Canon* (C-39/97),[27] *Linde* (C-53/01–55/01),[28] *Libertel* (C-104/01),[29] *Heidelberger Bauchemie* (C-49/02)[30] and *Storck* (C-25/05 P)[31], the Court draw the boundaries of concept of sign, and consistently underlined that a sign must be capable of indicating the commercial origin of goods or services, and that the assessment of distinctiveness must be carried out in relation to the perception of the relevant public.

25 The CJEU dealt with the notion of sign in the *Sieckmann* case (C-273/00). In his opinion Advocate General Colomer indicated that any message capable of sensory perception could function as a trademark.[32] In the *Libertel* case it was pointed out that colors per se cannot be presumed to constitute a sign but per se are capable to be a sign depending on the context in which they are used. So, one of the prerequisites of the trademark protection – to be a sign – can be fulfilled if the context supports it. [33] In the *Heidelberger Bauchemie* case Advocate General Léger argued in the ordinary sense of the term, a sign is a thing perceived which demonstrates the existence or truth of another thing, to which it is linked. A sign is therefore something which is perceived and which can be identified as such.[34] In the same case the court held that the requirement of being a sign aims to prevent the abuse of trademark law in order to obtain an unfair competitive advantage.[35]

26 In the *Dyson* case (C-321/03) Advocate General Léger and the Court discussed the concept of sign extensively, but the decision is somewhat disappointing as it did not give a positive definition but negative description of what does not constitute a sign in the case.[36]

27 Regarding to portrait trademarks, INTA notes that the EUIPO Fifth Board of Appeal found in 2015 that representations of human beings are not precluded from being perceived as distinctive signs.[37] This conclusion was repeated in the above cases by the Boards of Appeal.

28 The author contests this approach. Figurative signs are one of the most common types of trademarks, those per se can be seen by the consumers as signs. However, if they consist only of a human face (as most of the portrait trademarks are filed as figurative signs), the question may arise whether they can be seen as figurative signs or not. The author argues that in these cases the average consumers do not perceive faces as commercial signs. An instructive analogy may be drawn from the *Libertel* case, in which the CJEU held that colors per se cannot automatically be regarded as signs, yet may acquire the capacity to function as such depending on the manner and context of their use in trade. A similar reasoning could apply to facial images: although a human face, taken in isolation, may not inherently be perceived as a sign, the context in which it is used may render it capable of functioning as an indication of commercial origin. This suggests that the registrability of facial image marks should not be assessed in absolute terms, but rather in relation to the market practices, consumer perception, and the specific use of the image in question.

II. The Distinctiveness of Faces

29 If faces can be perceived as signs, the next important question is whether they are capable of distinguishing goods and services or not. In the above EUIPO cases the assessment of being a sign and being distinctive

26 Sándor Vida, 'Az "átlagos fogyasztó" az európai és a német védjegyjogban' (2004) 109 Iparjogvédelmi és Szerzői Jogi Szemle.

27 Case C-39/97, paras 27-28.

28 Case C-53/01-55/01 *Linde AG, Winward Industries Inc. v Rado Uhren AG* ECLI:EU:C:2003:206, para 40.

29 Case C-104/01 *Libertel Groep BV. v Benelux Merkenbureau* ECLI:EU:C:2003:244, para 62.

30 Case C-49/02 *Heidelberger Bauchemie GmbH* ECLI:EU:C:2004:384, para 16.

31 Case C-25/05 P *August Storck KG v Office for Harmonisation in the Internal Market (Trade marks and designs)(OHIM)*, ECLI:EU:C:2006:422, para 26.

32 Alexander von Mühlendahl and others, *Trade Mark Law in Europe* (Oxford University Press 2016) 53.

33 Case C-104/01, para 41.

34 Opinion of Advocat General Léger, C-49/02, para 63.

35 Case C-49/02, para 24.

36 von Mühlendahl and others (n 32) 60.

37 INTA: Amicus Brief (Third Party Observations), Case R 50/2024-2, para 10.

merge together under the scope of Article 7 of EUTMR, but theoretically they are separate problems as it is outlined in the case law. The third criterion of a trademark is the clear and precise representation (previously graphical representation) of the mark, but this one is not relevant from the scope of this paper as it obviously fulfills in the case of portrait trademarks.[38]

30 Theoretically, a distinction can be drawn between objective and subjective distinctiveness. Objective distinctiveness corresponds to the requirement enshrined in Article 4 EUTMR, namely that a sign must, by virtue of its inherent characteristics and irrespective of place or time, be capable of distinguishing goods or services from one another. This assessment is based exclusively on the features of the sign itself, independent of external factors. Subjective distinctiveness, by contrast, reflects the approach of Article 7(1)(b) of EUTMR, which requires an evaluation of whether the sign is actually capable of fulfilling its origin-indicating function in the light of the market conditions, the linguistic environment, and the commercial practices existing on the filing date of the application. In this sense, while objective distinctiveness establishes a theoretical capacity of the mark, subjective distinctiveness grounds the assessment in empirical and contextual realities.[39] However the CJEU applied a different approach in the *Phillips* case (C-299/99) where the court held that "there is no category of marks which is not excluded from registration by Article 3(1)(b), (c) and (d) and Article 3(3) of the Directive which is none the less excluded from registration by Article 3(1)(a) thereof on the ground that such marks are incapable of distinguishing the goods of the proprietor of the mark from those of other undertakings."[40] (The articles refer to the First Council Directive 89/104/EEC). This way the CJEU tied together the provisions of distinctiveness as a positive requirement and non-distinctiveness as a ground for refusal. However, later in the *Henkel* case (C-456/01 P. & C-457/01 P-) – interpreting the trademark regulation in force – provided a different conclusion stressing that a sign, in general, capable of constituting a trademark within the meaning of Article 4. does not mean that the sign necessarily has distinctive character for the purposes of absolute grounds for refusal in relation to a specific product or service.[41]

31 The concept of distinctiveness is complex and has been considered by the CJEU in many cases in relation to different categories of signs. In the *Philips* case the CJEU emphasized that the criterion of distinctiveness must be applied consistently across all categories of trademarks, and that three-dimensional signs are, in this respect, subject to the same standards as any other type of mark.[42] Although Article 7(1)(b) of EUTMR does not distinguish between different categories of trade marks in determining whether a trade mark is capable of distinguishing the goods or services of one undertaking from those of other undertakings, a distinction must be made depending on consumer perception and market conditions.[43]

32 For the purpose of this study, the theoretical foundations of distinctiveness of colors are worth an insight. In the *Libertel* case it was pointed out that colors per se cannot, as a matter of principle, be considered to be capable of distinguishing the goods or services of one undertaking from those of other undertakings, but in some circumstances they can acquire that capability. [44] This is the same line of reasoning as that applied in relation to whether colors may constitute signs or not. In the Heidelberger *Bauchemie* case this approach was reaffirmed and connected to acquired distinctiveness when the court held that "save in exceptional cases, colours do not initially have a distinctive character, but may be capable of acquiring such character as the result of the use made of them in relation to the goods or services claimed."[45]

33 While INTA notes[46] that the EUIPO Fifth Board of Appeal found in 2015 that representations of human beings are not precluded from being perceived as distinctive signs, and this conclusion was repeated in the above cases by the Boards of Appeal, it may be justified to adopt a more cautious approach, namely the one applied by the CJEU in assessing the distinctiveness of color marks.

34 A photographic image of a human face, even if technically unique, may not automatically evoke in the mind of the average EU consumer a specific commercial origin. Unlike a logo or an arbitrary word, which can be constructed with deliberate distinctiveness, human faces are naturally occurring and structurally similar across the population. Besides, as it was stated in the earlier study, human faces are not intellectual creations, thus their trademark protection is quite far from the original

38 Case C-421/13 *Apple Inc. v Deutsches Patent- und Markenamt* ECLI:EU:C:2014:2070, para 17.

39 Gábor Faludi and Péter Lukácsi (eds), *A Védjegytörvény Magyarázata* (HVG ORAC 2015) 39.

40 Case C-299/99 *Koninklijke Philips Electronics NV v Remington Consumer Products Ltd.* ECLI:EU:C:2002:377, para 40.

41 Case C456/01 P & C-457/01 P *Henkel KGaA v Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM)* ECLI:EU:C:2004:258, para 32.

42 Case C-299/99, para 48.

43 T-194/01 *Unilever NV. v Office for Harmonisation in the Internal Market (Trade Marks and Designs)(OHIM)* ECLI:EU:T:2003:53, paras 44-45.

44 Case C104/01, paras 27, 41.

45 Case C-49/02, para 39.

46 INTA: Amicus Brief (Third Party Observations), Case R 50/2024-2, para 10.

philosophy of intellectual property law.[47]

35 Generally accepting the distinctiveness of face could broaden the scope of trademark protection to an uncertain territory. In this context, it is instructive to recall the reasoning adopted by the Court of Justice of the CJEU in the *Dr. No* case (T-435/05),[48] where the Court emphasized the distinction between artistic origin and commercial origin. The ruling acknowledged that while certain signs – such as the title or imagery of a well-known artistic work – may convey information about the author or the cultural source, this is not equivalent to identifying the commercial origin of goods or services. Irene Calboli considers such copyrighted characters as "content signs" which are not source indicators, therefore they should be excluded from trademark protection.[49] Applying this analogy to facial trademarks, it becomes apparent that the presence of a recognizable face, even one linked to artistic or public notoriety, does not automatically enable consumers to infer the business undertaking responsible for the goods or services. It is particularly true when the celebrities or influencers give their face for advertising purposes for one or more brand. The mere recognizability of a face may indicate personal identity or artistic association, but not necessarily fulfill the legal function of a trademark as defined by EU law. Although cognitive science has shown that the human brain is highly adept at recognizing faces,[50] it is also well-established that recognition is not synonymous with identification of origin. This stance was represented by the examiners at first instance in the above cases.

36 According to the INTA, the human face – whether in the form of a photograph or a drawing – can potentially qualify for trademark protection if it meets the fundamental requirement set out in Article 4 of the EUTMR: the capacity to distinguish the goods or services of one undertaking from those of others. INTA explicitly rejects the argument, often found in EUIPO first-instance decisions, that portraits are generally incapable of serving a distinctive function. It refers to the *Verhoef* case, where the Board of Appeal had already ruled that a specific portrait may indeed fulfil the essential function of a trademark, namely indicating commercial origin.[51]

37 INTA emphasizes that the human face is capable of expressing individuality, and although consumers may initially perceive a face merely as an identifier of a person (rather than a trademark), through consistent use and market context, they can learn to perceive it as a source identifier. The organization outlines four conditions under which a portrait may be capable of serving the trademark function: (i) use in the course of trade, (ii) consistent format and appearance, (iii) placement in a position commonly associated with trademarks (e.g., on packaging), and (iv) either an established market practice of using portraits as trademarks in the given sector or the existence of special features that set the image apart from a "normal" portrait.[52] The application of the above test can in fact be aligned with the reasoning set out in the *Libertel* judgment, since INTA likewise requires the fulfilment of certain parameters under which a face may become capable of indicating commercial origin. Accordingly, the principle established in *Libertel* may also be applied here: portrait photographs depicting human faces do not, in themselves, possess inherent distinctiveness, yet the circumstances of their use may demonstrate the acquisition of such capacity in relation to the specific goods and services.

38 INTA stresses that the object of protection is not the general likeness or identity of a person, but a specific, concrete photograph, which therefore also satisfies the requirement of "clear and precise representation" under Article 4(b) of EUTMR. It draws a direct analogy to personal names[53] as trademarks: just as names cannot be categorically excluded from trademark protection, the same principle applies to portraits. The same logic extends to other "non-traditional" marks, such as colors or store layouts, where the CJEU has held that distinctiveness is context-dependent and can be established through use that departs from industry norms.

39 In summary, INTA takes the position that faces cannot be categorically excluded from trademark protection. The eligibility of such signs for registration should not depend on whether their form is conventional, but on whether the sign, in its specific commercial context, is capable of functioning as an indicator of trade origin.

40 The analytical framework developed by INTA – harmonizing with CJEU case law on color trademarks

47 Keserű (n 3) 91.

48 Case T-435/05 *Danjaq, LLC v Office for Harmonisation in the Internal Market (Trade Marks and Designs)(OHIM)* ECLI:EU:T:2009:226.

49 Irene Calboli, 'Overlapping Trademark and Copyright Protection: A Call for Concern and Action' (2014) 2014 University of Illinois Law Review Online 25, 33.

50 Martha J Farah, 'Is Face Recognition "Special"? Evidence from Neuropsychology' (1996) 76 Behavioural Brain Research 181."plainCitation":"Martha J Farah, 'Is Face Recognition "Special"? Evidence from Neuropsychology' (1996

51 Case R 2063/2016-4, para 37.

52 INTA: Amicus Brief (Third Party Observations), Case R 50/2024-2, para 11.

53 This refers to the currently ongoing appellation case on the name of George Orwell, see R2248/2019-5 case, EUTM 017869417.

– provides a well-founded basis for assessing the registrability of human faces as trademarks, particularly in its focus on contextual and functional considerations. The four criteria identified in its submission offer a structured and coherent method for evaluating whether a portrait image can fulfil the essential function of a trademark.

41 Nevertheless, doubts remain as to whether these conditions are sufficiently met in the case of passport-style photorealistic portraits. Such images are typically neutral in expression, devoid of stylization, and lack any commercial context or symbolic enhancement. As a result, they often fail to meet the practical threshold of distinctiveness in the perception of the average consumer.

42 However, this does not requires a categorical exclusion of facial images from trademark protection. Rather, the determination of registrability should be carried out on a case-by-case basis, with attention to the specific characteristics of the image and its manner of use. A nuanced, fact-sensitive assessment is necessary to ensure that only those facial signs which are genuinely capable of indicating commercial origin are granted protection, without undermining the openness of trademark law to evolving forms of non-traditional marks.

III. The Relevance of Goods and Service

43 EUIPO's first-instance examiners have repeatedly raised objections concerning the nature and context of facial images used on product packaging. According to their arguments such depictions often represent generic or banal portrayals of people, which may lead the relevant public to interpret them not as indicators of commercial origin, but rather as symbolic references to the target audience of the goods or services.[54] In other words, when a face is used in a way that reflects a generalized human image, it is presumed to function merely as a decorative or suggestive element, rather than as a trademark.

44 However, a different situation arises when the person depicted is a professional model, and the specification of goods and services includes modelling services. This is precisely the case in several of the disputed applications under consideration, where the images represent identifiable models, and the goods and services explicitly cover modelling-related activities.

45 This raises a nuanced but significant legal question: Can the face of a model function as a distinctive sign in relation to modelling services, which include participating on photoshoots or fashion shows? It could be argued that particular difficulties arise in such cases, since the image – specifically, the face of the model – comes very close to constituting the very subject matter of the service. Unlike situations where a trademark functions as an external identifier attached to goods or services provided by an undertaking, here the visual appearance of the person is inseparable from the service being offered. In this respect, the boundary between the sign and the service may appear blurred, which challenges the basic premise that a trademark should operate as a sign of origin distinct from the goods or services themselves. Although it would be too categorical to assert that the model and the service are fully identical, it is reasonable to highlight that the overlap is far stronger than in most conventional trademark scenarios.

46 By way of illustration rather than strict analogy, reference may be made to the so-called "merger doctrine" in U.S. copyright law. This doctrine describes situations where an expression and the underlying idea effectively merge because the idea can be expressed in only one or a very limited number of ways.[55] Similarly, one might cautiously suggest that in trademark law, if the sign coincides too closely with the essence of the service offered, its ability to function as an indicator of origin is weakened. The present discussion does not suggest a direct transposition of this doctrine into EU trademark law; rather, the analogy is meant to illustrate the conceptual challenge that arises when the subject matter of protection and the object of the service converge. In the context of modelling services, the portrait of the model arguably embodies the core value of what is offered on the market. From this perspective, one might cautiously suggest that if the sign coincides too closely with the essence of the service, its capacity to function as an external indicator of origin is undermined.

47 In respect of goods, there is an exact rule for such a situation in Article 7(1)(e)(iii) of EUTMR, which excludes from registration those signs that consist exclusively of a shape or other characteristic which gives substantial value to the goods. This occurs when the sign represents the product itself.[56] This provision is typically applied to three-dimensional forms or aesthetic attributes that enhance the market appeal of a product. It is acknowledged that this exclusion is grounded in considerations of public

54 Case R 2063/2016-4, para18.

55 Pamela Samuelson, 'Reconceptualizing Copyright's Merger Doctrine' (2016) 63 Journal of the Copyright Society of the USA 417, 417.

56 Milica Z Petrovic, 'Legal Conditions for the Protection of Three Dimensional Signs in Trademark Law Review Article' (2021) 38 LAW - Theory and Practice 54, 56.

interest, namely, to prevent undertakings from monopolizing features that substantially increase the attractiveness or value of goods. Nevertheless, the underlying rationale – that a trademark should not be identical with the product itself – may provide a useful analytical parallel. While the wording of the provision as it currently stands applies only to goods, it signals the structural limitation that a sign cannot simultaneously embody the product's essential value and serve as an indicator of its commercial origin, even if it has distinctive character. Transposed to services, this suggests that caution is required whenever a sign (e.g. a model's face presumed as a distinctive sign) is so closely tied to the essence of the service that it risks ceasing to operate as an external badge of origin. Although EU law does not extend Article 7(1)(e)(iii) to services, acknowledging this conceptual problem helps to delineate the possible boundaries of protectable portrait marks.

48 EUTMR does not define the category of mark that is considered a shape within the meaning of that provision. It makes no distinction between 2D and 3D shapes, and 2D representations of 3D shapes. Therefore, Article 7(1)(e) of EUTMR is applicable not only to 3D shapes but also to other categories of marks, such as figurative signs representing shapes.[57] Such products could be posters with the face, toys and figurines embodying the given person, keyholders with face etc. In these cases, the trademarks are not brands, they are not responsible for indicating commercial origins, but they are the valuable products themselves. At the same time, it must be noted that one facial image trademark has been registered as a three-dimensional mark,[58] rather than as figurative or photographic sign. In such cases, the sign is not limited to a two-dimensional representation but it explicitly claims protection for the shape and spatial configuration of the human face as it appears on the product or packaging. In these circumstances, the absolute ground for refusal under Article 7(1)(e)(iii) of EUTMR may become applicable, since such signs consist of a shape or other characteristic that may add substantial value to the goods. Where the representation of a face, whether in two or three dimensions, is not merely decorative but substantially influences the product's aesthetic or emotional appeal – or even constitutes its very essence – the rationale of this exclusion becomes particularly relevant. The implication is not that every portrait mark falls within the exclusion, but that certain uses of facial images approach a threshold where the trademark ceases to serve its essential source-indicating function.

57 Joined Cases C-337/12 P – C-340/12 P ECLI:EU:C:2014:129, para 55.

58 EUTM 018594683, a young man in black T-shirt and black baseball hat.

IV. The Relative Grounds for Refusal. The Assessment of Likelihood of Confusion in Facial Image Trademarks

49 Once the registration of human faces as trademarks is permitted on absolute grounds, a new and complex layer of legal analysis becomes inevitable: the question of likelihood of confusion under relative grounds for refusal. In order to ensure that trademarks serve their essential function of indicating the commercial origin of goods or services, proprietors are entitled to prohibit the use of identical or similar signs by unauthorized third parties whenever such use is likely to cause confusion among the relevant public.[59] This issue is not only relevant in opposition proceedings, but also in invalidation actions and infringement cases, where the same legal standards must be applied.

50 Accordingly, the acceptance of portrait marks into the trademark system will necessarily require EUIPO opposition and cancellation divisions and national courts alike to assess the comparability of different facial images in the context of potential conflicts between earlier and later rights.

51 This shift introduces a number of substantial challenges. Within the European Union, the criteria for evaluating likelihood of confusion are well established and originate from the CJEU's landmark judgment in the *Canon* and *SABEL* cases.[60] The *Canon* case provides guidance for comparing the goods and services, which is not relevant from the scope of the study in the absence of any specialties regarding facial image trademarks. The CJEU created the basic formula for the comparison of the signs in the *SABEL* case. According to the test laid down by the CJEU, marks must be compared as a whole, considering the visual, phonetic, and conceptual impressions they leave on consumers. This aligns with human perception, which processes sensory input (primarily sight and hearing) holistically rather than analytically.[61] For composite marks, the distinctive and dominant elements shall have

59 Martin Senftleben and Femke van Horen, 'The Siren Song of the Subtle Copycat - Revisiting Trademark Law with Insights from Consumer Research' (2021) 111 The Trademark Reporter 739, 743.

60 Case C-251/95 *SABEL v Puma, Rudolf Dassler Sport* ECLI:EU:1997:528.

61 Ilanah Fhima and Dev S Gangjee, *The Confusion Test in European Trade Mark Law* (Oxford University Press 2019) 173.likelihood of confusion has been the core infringement test for trade mark law, and it remains the most frequently applied test in infringement actions by far. However, there are noticeable differences in how it is applied by the Court of Justice of the European Union (CJEU

special emphasis. Consumers do not typically see or hear the marks side by side – they rely on memory. Thus, similarity is assessed based on whether the marks could be confused in recollection.[62] The risk of confusion must be assessed globally, according to the perception of the relevant public, taking into account all factors relevant to the circumstances of the case, in particular the recognition of the trade mark on the market, the association which may be made with the used or registered sign, the degree of similarity between the marks and between the goods or services designated. The global assessment also implies some interdependence between the factors taken into account and in particular between the similarity of the trade marks and that of the goods or services designated.[63]

52 The joined *Messi* cases (C-449/18 P; C-474/18 P) reaffirm that the likelihood-of-confusion inquiry under Article 8(1)(b) EUTMR is a global assessment in which conceptual factors may neutralise visual and phonetic similarities. The court accepted that the reputation of the sign "MESSI"—as a matter of common knowledge—objectively shapes consumer perception and, in that case, counterbalanced the optical and aural proximity to "MASSI", thereby excluding confusion. The judgment thus confirms that what ultimately matters is not the abstract category of the sign but how the relevant public perceives it in context, and that fame – where truly famous – may be taken into account without formal proof.[64] The CJEU's case law on conceptual "neutralization" provides a useful template for assessing conflicts involving facial image trademarks. The *Messi* case relies on the *Picasso* case (C-361/04 P),[65] where the Court already accepted that a sign bearing a name with an immediate and specific conceptual meaning to the relevant public may, in certain circumstances, neutralize visual and phonetic similarities and thus exclude a likelihood of confusion. The *Messi* case adds to this approach that the world-fame of the person can be considered ex officio, without further proof. Neutralization remains exceptional and strictly applied: it presupposes that (virtually) the whole relevant public will grasp an immediate and clear conceptual difference, otherwise visual and phonetic similarities prevail.[66] Scholarly commentary has also voiced reservations about the reach and clarity of the Court's approach in *Messi*—while the judgment recognizes that conceptual dissimilarity (grounded in common-knowledge notoriety) may neutralize pronounced visual and phonetic proximity, it leaves only sketchy guidance on when such notoriety suffices and how it should be evidenced.[67] Sztoldman argues that the Court blurred trade mark reputation with personal notoriety, effectively treating Messi's fame as an a priori conceptual anchor that neutralized visual and phonetic similarity. If in some cases personal fame is superior to other factors, where is the limit and what are the criteria for assessing the fame of celebrities in trademark matters?[68]

53 However, the critical question arises: How can these doctrinal standards be meaningfully applied to facial image trademarks? Unlike traditional word or figurative marks, where graphical stylization or verbal elements can be analyzed more easily, human faces possess inherent and biologically determined features that limit the extent of visual variation. Most faces include two eyes, a nose, a mouth, and ears in similar relative positions. While individuality exists in proportions, expressions, and minor distinguishing traits, the overall structural similarity of human faces poses difficulties in applying conventional visual comparison methods used in trademark law. In the global assessment required by Article 8(1)(b) EUTMR, and consistently articulated in *SABEL*, *Canon*, and *Lloyd Schuhfabrik* cases, this baseline similarity interacts with two well-established features of the test, the interdependence of factors and the imperfect recollection of the average consumer. Because consumers typically do not compare signs side-by-side and rely on an imprecise memory, minor variations in pose, lighting, expression or cropping will often fail to notice differences, so facial marks with broadly comparable morphology may be perceived as similar to a degree that supports a risk of confusion. This is especially true where the faces are not independently recognizable to the relevant public and where the purchasing act involves a lower degree of attention or occurs in visual environments (small formats, grayscale uses, fast-moving online contexts) that diminish the salience of fine facial details.

62 Barna Arnold Keserű, 'A védjegyek összetéveszthetőségének joggyakorlata az USA, az Európai Unió és Magyarország védjegyjogában' (2012) 7 (117) Iparjogvédelmi és Szerzői Jogi Szemle 68, 81–84.

63 Case C-342/97 *Lloyd Schuhfabrik Meyer & Co. GmbH v Klijsen Handel BV* ECLI:EU:C:1999:323, para 19.

64 Case C-449/18 P & C-474/18 P *European Union Intellectual Property Office v Lionel Andrés Messi Cuccittini* ECLI:EU:C:2020:722, paras 44-47.

65 Case C-361/04 P *Claude Ruiz-Picasso and Others v Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM)* ECLI:EU:C:2006:25.

66 Angel Garcia Vidal, 'Trademarks Composed by Names of Celebrities: Legal Implications of the Fame of the Person' (2022) 14 Cuadernos de Derecho Transnacional 255, 269–270.

67 Van Anh Le and Joanna Buchalska, 'Using a Surname in a Trademark: Has the Messi Case Changed Case-Law?' (2022) 14 Krytyka Prawa. Niezalezne Studia and Prawem 67, 83.

68 Agnieszka Sztoldman, 'The Lionel Messi Case: Trade Mark's Reputation Blurred with Personal Notoriety' (2021) 43 European Intellectual Property Review 408, 409–410.

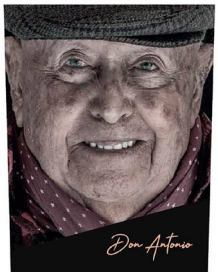
54 This biological similarity means that adjudicators must grapple with the fine margins of distinctiveness among faces, particularly in the absence of additional identifiers such as stylization, context, or accompanying verbal elements.

55 Transposing the findings of the *Picasso* and *Messi* cases to portrait marks, this approach provides a workable method for addressing the biologically determined baseline of facial similarity in certain cases. Where a facial image is recognizable to the relevant public (e.g., the portrait of a widely known figure), that conceptual anchor can neutralize structural likeness to another portrait, reducing the risk of confusion notwithstanding visual proximity. Conversely, where both faces are unknown (and thus lack any salient conceptual content), no such neutralization occurs and visual similarity will assume greater weight in the overall appraisal. In short, the *Messi* framework directs adjudicators to integrate identity, fame and use-context into the analysis rather than allowing a purely optical comparison to dominate.

56 It must be emphasized, however, that the *Messi* case concerns relative grounds and offers no shortcut on absolute grounds. The fact that personal fame can dispel confusion in opposition proceedings neither establishes inherent distinctiveness under Article 7(1)(b) EUTMR nor proves reputation within the meaning of Article 8(5). Those remain separate inquiries, to be satisfied—if at all—by evidence of trademark-functioning use in relation to the goods and services claimed.

57 It must also be taken into account that our biologically determined perception of human faces – that is, our innate ability to recognize identical faces and to distinguish between different ones – is not equivalent to the legal concept of likelihood of confusion as developed in trademark law. While the human brain is highly trained to process facial features and detect subtle distinctions between individuals, this cognitive capacity operates on a different level than the structured legal assessment used to evaluate the similarity of signs and the risk of confusion among consumers. Consequently, the mere fact that two faces may appear different to the human eye does not necessarily mean that no likelihood of confusion exists under trademark law, and vice versa. This distinction highlights the need for a nuanced and legally consistent framework when applying traditional trademark criteria to signs consisting of human faces. This raises the risk of inconsistent or overly subjective decisions, especially when the analysis hinges on nuanced visual assessments that may be influenced by subconscious perceptions or cultural biases. In trademark law, where decisions regarding similarity and likelihood of confusion must meet objective standards, such uncertainties present significant challenges when human faces are used as signs. This problem does not preclude the registrability of such signs, but opens the gate for jurisdictional challenges.

58 INTA notes that in the *Don Antonio* case[69] the Fifth Board of Appeal has already given an example for such comparison in opposition proceedings.

Earlier Trademark EUTM 14908677 Filed on 14 December 2015, Registered on 12 May 2016	Contested Trademark Application EUTM 18362780 Filed on 25 January 2021
	

2. Table The compared signs in case R 0010/2023-5. Compiled by the author.

69 EUIPO, Decision of the Fifth Board of Appeal of 15 March 2024, in the case R 0010/2023-5 (EUTM 18362780).

59 Both trademark applications were filed for wines (Nice class 33), and the list of goods and services of the earlier trademark also encompassed other services related to wines in class 35 and 39. As regards the comparison of the signs, the Board of Appeal has taken into account the eyes, the position of lips, the wrinkles on the faces, the facial expression, the skin tone, the style of the caps, the collars of the shirts. This case does not entirely fit to the above arguments of the paper as the contested sign is not merely a photo, but it also contains verbal elements. As the decision highlights, the verbal elements and their slight stylization, while having a secondary visual impact on the overall impression of the contested mark, will not go unnoticed, as the space reserved for them corresponds to approximately one third of the sign and is clearly differentiated from the portrait by a diagonal cut and the black background. The expressions 'DON ANTONIO' and 'TENUTA ULISSE' were found also distinctive overall. According to case law, in the wine-growing world, names carry great weight, whether surnames or names of vineyards, since they are used to reference and designate wines.

60 This way the overall assessment was influenced by the verbal elements, but as regards the portraits, the Board found that the first image is somber and somewhat stark. The man's serious expression, combined with the earthy tones and deep-set features, gives the portrait a solemn and contemplative feel. The attire is simple and unadorned, contributing to an overall austere aesthetic. The second image is vibrant and lively. The man's face is alight with a broad smile, and his eyes are crinkled in amusement. The image is colorful, with the subject wearing a patterned scarf. In terms of color and lighting, the first image is characterized by muted, natural tones and soft lighting, while the second is brighter and more colorful with a clear and radiant presentation.[70] In conclusion, the visual similarity was held in a low degree.

61 The conceptual comparison was derived from the visual comparison, while phonetic assessment was unnecessary. The different artistic choices – alongside with the other factors which are irrelevant for the topic of this article – led to the refusal of the opposition and the contested application was granted.

V. The Challenge of Genuine Use for Portrait Trademarks

62 A critical issue arises in connection with the registration of human faces as EU trademarks concerns the requirement of genuine use, as set out in Article 18(1) of EUTMR. According to this provision: if, within a period of five years following registration, the proprietor has not put the EU trademark to genuine use in the Union in connection with the goods or services in respect of which it is registered, or if such use has been suspended during an uninterrupted period of five years, the EU trademark shall be subject to the sanctions provided for in the EUTMR. In trademark systems based on registration, the obligation to demonstrate actual use of a mark – at least at some stage – is a fundamental mechanism for addressing the problem of register clutter. This holds particular significance in systems like the EUTM, where neither prior use nor an intention to use is required for obtaining registration. Consequently, monitoring and enforcing the use requirement becomes especially critical for preserving trademark rights over time.[71] In the pure registry systems the banking of trademarks makes more costly to enter markets, so the requirement of use keeps the level of investments at optimal rate.[72]

63 The use of a trademark means use as a badge of origin, by the proprietor or with its consent, for the registered goods or services, and in forms that preserve the distinctive character of the registered sign. It was consistently articulated by the CJEU in the cases *Ansul* (C-40/01),[73] *La Mer* (C-259/02),[74] *Rintisch* (C-553/11),[75] *Colloseum* (C-12/12),[76] *Specsavers* (C-252/12).[77] These also reflect the role of the register, where the representation recorded brings clarity and legal certainty as to what is protected.

64 This requirement becomes more complex where the registered sign consists of a photorealistic representation of a living individual's face, and the sign is not used as a static visual sign (what does not raise specific questions compared with other figurative trademarks), but instead in the course of trade through the appearance of the actual person – for instance, in the context of modelling services as "living trademarks". Although there could be different approaches whether the use of

70 Case R 10/2023-5, 43-44.

71 Graeme B Dinwoodie, 'Territorial Overlaps in Trademark Law: The Evolving European Model Symposium: Negotiating IP's Boundaries in an Evolving World' (2016) 92 Notre Dame Law Review 1669, 1694.

72 Landes and Posner (n 17) 281.

73 Case C-40/01 *Ansul BV kontra Ajax Brandbeveiliging BV.* ECLI:EU:C:2003:145.

74 Case C-259/02 *La Mer Technology Inc. v Laboratoires Goemar SA.* ECLI:EU:C:2004:50.

75 Case C-553/11 *Bernhard Rintisch v Klaus Eder* ECLI:EU:C:2012:671.

76 Case C-12/12 *Colloseum Holding AG v Levi Strauss & Co.* ECLI:EU:C:2013:253.

77 Case C-252/12 *Specsavers International Healthcare Ltd v Asda Stores Ltd* ECLI:EU:C:2013:497.

own face constitutes use of trademark or not, the author argues that as the persons are the natural and inseparable three-dimensional bearers of the registered signs, their commercial activity related to the list of goods and services may be relevant, and that tension emerges more frequently with portrait marks than with stylized logos or word marks. In such cases, the question occurs whether the dynamic and naturally changing appearance of a person can still satisfy the condition of consistent and genuine trademark use. This question is simply theoretically, if the trademarks are used in the orthodox static way as well (e.g. on posters, websites etc.) which can fulfill the requirement of genuine use anyway but becomes more important in the absence of such common use and the owners rely only to the use of their natural face.

65 Indeed, human faces are subject to inevitable changes over time. Hairstyles, make-up, facial expressions, and even the natural aging process may alter the appearance of the person depicted in the registered sign. This leads to the legal dilemma of determining whether use of a slightly modified version of the face still constitutes use of the registered trademark. It shall be noted that the author disagrees with INTA in this aspect as they held that the changes of the face have no impact on the trademark, as the subject of the trademark is merely the concrete photograph and not the actual face of the person. It is true that trademarks do not protect the face in general but in that static format which was registered, it is clear consequence of the requirement of representational clarity laid down on Article 4 of EUTMR. However, the person's head is the three-dimensional representation of that picture. If it is captured on photo or video, it becomes again two-dimensional. This way regarding to modeling services, posing and showing the given face in a photoshoot or in the catwalk could be relevant from the perspective of genuine use.

66 Under established EUIPO[78] and CJEU case law, use of a sign that differs from the registered form only in elements which do not alter the distinctive character of the sign is still considered genuine trademark use.[79] However, this assessment can become particularly challenging in the context of portrait marks. For instance, if the registered mark shows a person wearing a hat that visually dominates one-quarter of the image, omitting the hat in actual use may significantly impact the sign's overall impression and its distinctiveness. The same might apply in cases of substantial changes to hairstyle, extreme make-up, or other prominent visual alterations. The determination of whether such changes remain within the scope of permissible variation or whether they affect the distinctive character of the sign is far from straightforward.

67 Another practical consideration concerning the utility of such trademarks relates to the duration of use of the registered image by the individuals concerned. It is reasonable to assume that, as these individuals change over time – whether in appearance, style, or age – the facial photographs they use in commerce are also likely to evolve. This raises the question of how long the exact photograph registered as a trademark will remain in active use. Given that trademark protection operates on the premise of a static and consistent sign, which must be used in the precise or near-identical form in which it was registered, this legal rigidity may not be fully compatible with the dynamic nature of personal image use, particularly in industries like fashion, media, or entertainment. As a result, the requirement of genuine use, when applied to photorealistic facial trademarks, may render the protection less practical over time. The mark's inflexibility may eventually conflict with the individual's evolving branding strategies or visual identity, thereby limiting the long-term usefulness of trademark protection for such portrait-based signs. Of course, it is not the theoretical problem of trademark law, but a practical problem of the applicants who have to choose the adequate form of legal protection for their interests.

68 The above thoughts illustrate not only the doctrinal difficulty of assessing the genuine use of photorealistic portrait marks, but also points to the practical limitations of these so-called "living trademarks." When the registered image is not merely a stylized logo but the real, evolving face of an individual, the utility and enforceability of the trademark may become fragile over time.

VI. Limitation on Trademark Protection: The Use of "own face"

69 A fundamental aspect of EU trademark law is the balance it seeks to maintain between exclusive rights and the freedoms of third parties. This balance is enshrined in Article 14(1)(a) of EUTMR, which provides that the proprietor of an EU trademark shall not be entitled to prohibit a third party from using, in the course of trade, his own name or address, provided he uses them in accordance with honest practices in industrial or commercial matters. The study does not aim to introduce the concept of honesty under Article 14, but it makes clear that it is a misconception that one has an absolute right to use

78 See in more detail 'CP8 – Common Communication. Use of a Trade Mark in a Form Differing from the One Registered' (EUIPO, 2020).

79 Case T-194/03 *Il Ponte Finanziaria SpA v Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM)* ECLI:EU:T:2006:65, para 50.

one's own name as a trademark, there are additional requirements.[80] Article 14. includes other types of limitations as well, but they do not raise specific questions regarding faces, so those are out of the scope of the investigation.

70 While this provision currently applies only to the use of personal names, the increasing number of trademark registrations consisting of photorealistic human faces raises the question of whether this limitation should be extended to facial image – what would provide the right of an individual to use their own image in economic activities.

71 In the absence of such an extension, a significant tension emerges between trademark law and personality rights. Under Articles 8(1)(b) and 9(2)(b) of EUTMR, EU trademark protection and enforcement extend to identical or similar signs where similarity gives rise to a likelihood of confusion. If a person's facial image is registered as a trademark, it could theoretically allow the proprietor to prohibit other individuals from commercially using their confusingly similar own face, even in contexts where that use is essential to their profession. With the scope of protection this is not only a problem for twins or look-alikes, but also very similar looking peoples. This tension becomes particularly acute in the modelling industry. If a model's facial image is registered as a trademark for modelling services, and a different model has a confusingly similar or even nearly identical appearance (not to mention the special case of twins), the mere commercial use of their face (eg. walking along the runway on a fashion show) might constitute trademark infringement.

72 Such outcomes would run counter to the foundational objectives of trademark law, which are not intended to exclude individuals from pursuing legitimate economic activities based on their physical appearance. As Rothman notes, "each person had a right to control how others used their identity in trade."[81] Rather, trademark law is designed to prevent consumer confusion and to protect business goodwill – not to monopolize personal identity through trademark and restrict the use of similar identities.

73 This concern was briefly acknowledged in certain Board of Appeal decisions involving portrait trademarks, where the panels recognized the issue but regarded it as exceptional and peripheral, thereby concluding their analysis without broader legal reflection.[82] However, given the increasing registration of portrait marks and the expansion of their commercial implications, the current framework may no longer be sufficient.

74 It is therefore arguable that legislative development is needed to ensure that the limitations on trademark protection under Article 14 of EUTMR are interpreted more broadly, potentially encompassing the right to one's own image under the same principles that currently apply to the use of one's own name. This would help to safeguard basic personality rights and to prevent disproportionate restrictions arising from the expansion of "living trademarks."

VII. Reputation and Portrait Marks: Does Personal Fame Transfer to Trademark Reputation?

75 A critical issue in the context of portrait trademarks concerns whether the reputation of the individual depicted can automatically elevate the trademark itself to the status of a well-known or reputed mark, thus granting it enhanced legal protection. This question bears relevance under both Article 8(2)(c) and Article 8(5) of EUTMR and can have significant implications for the registrability and enforcement of such marks.

76 Under Article 8(2)(c) of EUTMR, a trademark application may be refused if it conflicts with a prior, unregistered trademark or sign that is well-known in a Member State, in the sense of Article 6bis of the Paris Convention. In the context of portrait marks, this raises the question of whether a well-known face – such as that of a celebrity or public figure – can itself function as a prior sign that blocks subsequent applications. Furthermore, under Article 8(5) of EUTMR, trademarks with reputation enjoy extended protection, even in cases where the goods or services are dissimilar, provided that the later use would take unfair advantage of, or be detrimental to, the distinctive character or repute of the earlier mark.

77 Well-known and reputed trademarks are similar in nature,[83] both categories involve quantitative assessments of the degree of recognition enjoyed by the sign among the relevant public. The World Intellectual Property Organization in its recommendation defined the criteria for well-known trademarks.[84] The document makes clear that the

80 Floyd A Mandell, 'Personal Name Trademarks - Your Name May Not Be Your Own' (1980) 70 The Trademark Reporter 326, 326–327.

81 Rothman (n 3) 1306.

82 EUIPO Fourth Board of Appeal Case R 468/2021-4, para 18; Case R 1704/2023-4, para 23; Case R 2173/2023-4, para 23.

83 István Gödölle, 'A jó hírű védjegy mint kizáró ok a védjegyjogban' (2013) 8 Iparjogvédelmi és Szerzői Jogi Szemle 153.

84 'Joint Recommendation Concerning Provisions on

conditions shall be assessed in accordance with the list of goods and services.[85]

78 The CJEU has addressed in the *Chevy* case the concept of trademark with reputation in the context of Community law.[86] The Court held that in order to enjoy protection extending to non-similar products or services, a registered trademark must be known by a significant part of the public concerned by the products or services which it covers. The TDK case has also confirmed this interpretation.[87]

79 The settled case law makes clear that a trademark does not acquire reputation simply because it refers to a famous person or event. Reputation must be based on the actual use of the mark in connection with the designated goods or services, and not merely on the renown of the individual depicted. The mark must become known in the market as a sign of origin, and this association must be the result of commercial use and consumer perception. For instance, in a case concerning Fernando Alonso, the famous Formula 1 world champion, the evidence of his personal fame was deemed insufficient to establish reputation for the purposes of the goods listed in the trademark's specification. The mere fact that a celebrity is universally known does not necessarily mean that a trademark consisting of their image or name qualifies as "reputed" under Article 8(5) of EUTMR.[88]

80 Therefore, while the public recognition of the depicted person may contribute to the distinctiveness of a portrait mark, it does not automatically confer reputation in the legal sense. Reputation must be proven in relation to the use of the sign as a trademark, and in connection with the specific goods and services for which the sign is registered. Without this commercial use and consumer association, personal fame remains insufficient as a basis for enhanced protection under EU trademark law.

81 This logic also underpins the position taken by the INTA with regard to acquired distinctiveness. In its amicus curiae brief, INTA explicitly emphasized that the fame or public recognition of a particular face, standing alone, is not sufficient to establish acquired distinctiveness in connection with the goods or services at issue. Instead, it must be shown that the relevant public perceives the image as a source identifier, due to consistent and targeted use in commerce. The underlying rationale here mirrors that which applies in the context of reputed marks: a famous image or name must function as a trademark in the market, rather than merely symbolizing personal identity or fame.[89]

82 Thus, both acquired distinctiveness and reputation-based enhanced protection share a common doctrinal foundation: consumer perception shaped by market use, not mere celebrity status or renown. This reinforces the principle that personality traits – even when widely recognized – must be evaluated within the structured legal framework of trademark function, which is ultimately rooted in the mark's capacity to distinguish goods or services in trade.

F. Conclusion

83 The registration of facial images as trademarks presents a unique intersection of traditional trademark doctrine, emerging non-traditional marks, and fundamental personality rights. As this study has demonstrated, the recent shift in EUIPO case law – particularly the reversal of first-instance refusals by the Boards of Appeal – has opened the door to a broader acceptance of facial image marks, provided they satisfy the essential requirement of distinctiveness under Article 7(1)(b) of EUTMR. At the same time, this trend raises a series of conceptual and practical challenges.

84 The analysis has shown that while the capacity of facial images to serve as source indicators cannot be ruled out in principle, their registrability must be assessed with great caution. Passport-style, photorealistic portraits that lack stylization, symbolic elements, or contextual use in trade are unlikely to meet the threshold of distinctiveness. In this regard, the study supports a case-by-case assessment of such signs rather than a categorical exclusion or acceptance.

85 Several normative and de lege ferenda suggestions have emerged from this analysis. First, the study proposes a clearer application and legislative expansion of Article 7(1)(e)(iii) of EUTMR to cases where the portrait itself constitutes the core commercial value of the service – particularly in modelling-related trademarks – thus blurring the line between the sign and the goods/services. Second, the study raises the issue of genuine use

the Protection of Well-Known Marks' SCT/3/8, World Intellectual Property Organization, 2000.

85 István Gödölle, 'A korábbi védjegy mint lajstromozást gátló és törlési ok - 1. Rész' (2014) 9 Iparjogvédelmi és Szerzői Jogi Szemle, 32–33.

86 Case C-375/97 *General Motors Corporation v Yplon SA* ECLI:EU:C:1999:408.

87 Case T-477/04 *Aktieselskabet af 21. november 2001 v Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM)* ECLI:EU:T:2007:35, para 48.

88 EUIPO, Decision of the Fourth Board of Appeal of 22 July 2010, in the case R 11/2008-4 (EUTM 3972973), paras 44-45.

89 INTA: Amicus Brief (Third Party Observations), Case R 50/2024-2, para 18.

under Article 18(1) of EUTMR in the context of evolving appearances (e.g. hairstyle, makeup), suggesting that that criteria of genuine use may undermine the practical usefulness of portrait trademarks in many cases.

86 Third, in light of potential conflicts between trademark rights and personality rights, the study argues that the exception enshrined in Article 14(1)(a) of EUTMR – currently applicable to personal names – might justifiably be extended to facial likenesses. This would prevent scenarios where an individual could be prohibited from using their own face in commerce due to a previously registered facial image trademark in cases involving highly similar appearances or identical twins.

87 Fourth, with respect to reputation and acquired distinctiveness, the study affirms that the mere public recognition of a person is insufficient to establish the reputation or secondary meaning of a portrait mark. This view is aligned with INTA's position, which emphasizes that fame alone does not transform a portrait into a distinctive mark for the relevant goods or services.

88 Finally, the study calls attention to the practical implications for trademark proprietors. The static nature of facial image trademarks may not correspond to the dynamic visual identity of the individuals they depict. As a result, the legal protections afforded by trademark registration may not fully meet the evolving needs of rights holders, who may, in some cases, be better served by relying on personality rights for image protection as it was investigated in the previous study.[90]

90 Keserű (n 3).

Lawfulness Requirements to the Storage of Customer Data in the Digital Product Passport

by **Diogo Sasdelli and Thomas J. Lampoltshammer ***

Abstract: With the advent of the Digital Product Passport (DPP), introduced in the Ecodesign for Sustainable Products Regulation (ESPR), information concerning various aspects throughout a product's value chain – from design to disposal – is to be made available in the future. This pursues the goal of promoting the establishment of a so-called circular economy in the European Union. The possibility of processing personal data within a DPP raises data protection issues, particularly concerning the lawfulness of storing customer data. Challenges arise especially in connection with the interpretation of the terms "explicit consent" and "customer" in Art. 10(1) (e) ESPR, as well as concerning the identification of the applicable sanctions in case of a violation of this article, in particular in view of the principle ne bis in idem. The paper at hand discusses these issues and proposes respective solutions.

Keywords: Digital Product Passport, Ecodesign Regulation, Data Protection, Customer Data, Explicit Consent, ne bis in idem.

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A. Introduction

1 The central concept in the regulatory framework established by the Ecodesign for Sustainable Products Regulation (ESPR)[1] – and thus its main object – is that of the *ecodesign requirement*. Art. 2 Subpara. 1(7) ESPR defines an ecodesign requirement as "a performance requirement or an information requirement aimed at making a product, including processes taking place throughout the product's value chain, more environmentally sustainable" The ESPR thus distinguishes between two types of ecodesign requirements: (1) *performance requirements* and (2) *information requirements*. The former, according to Art. 2 Subpara. 1(8) ESPR (cf. also Art. 6 ESPR), consist of quantitative or non-quantitative requirements for or in relation to a product to achieve a certain performance level with regard to specific product parameters listed in Annex I of the ESPR. The latter, in turn, according to Art. 2 Subpara. 1(9) ESPR in conjunction with Art. 7(2) ESPR, relate to the provision of relevant information throughout the entire value chain of a product – from design to disposal. Here, the product parameters mentioned in Annex I ESPR also play a key role. These generally relate to the ecologically sustainable design of

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1 Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC [2024] OJ L 1781, 28 June 2024.

products, for example with regard to repair, maintenance, and reuse possibilities, as well as their material and CO_2 footprint. The specific ecodesign requirements for respective product groups are not introduced directly by the ESPR itself, but rather by delegated acts to be adopted by the European Commission in accordance with Art. 4(1) ESPR.[2]

2 Besides the ecodesign requirements, the so-called digital product passport (DPP) also plays a prominent role in the regulatory framework of the ESPR. Its legal concept can be found in Art. 2 Subpara. 1(28) ESPR, which defines the DPP as "a set of data specific to a product that includes the information specified in the applicable delegated act adopted pursuant to Article 4 and that is accessible via electronic means through a data carrier in accordance with Chapter III."[3] In the regulatory framework of the ESPR, the DPP is directly related to the information requirements. The DPP constitutes namely the primary means by which the information requirements to be introduced in the respective delegated acts are to be fulfilled. Although the Commission may, within the framework of the respective delegated acts, grant the possibility of fulfilling information requirements by other means – e.g., through a package insert or by providing information on a website –, this should only occur in exceptional cases (e.g., according to Art. 9(4) ESPR).[4]

3 General requirements for the DPP are listed in Art. 9 and 10 ESPR and described in more detail in Annex III ESPR. These requirements stipulate, for example, that a DPP must be based on open standards (Art. 10(1)(d) ESPR) and be connected to the corresponding product via a data carrier or a unique product identifier (Art. 10(1)(a) ESPR). From a data protection perspective, however, Art. 10(1)(e) ESPR is of primary interest. It reads: "personal data relating to customers shall not be stored in the digital product passport without their explicit consent in compliance with Article 6 of Regulation (EU) 2016/679 [i.e., the GDPR[5]]". This data protection provision in the ESPR raises various questions, which can be summarised as the following three main issues:

- Personal data is generally not among the information to be provided via a DPP in order to fulfill the information requirements. It is therefore unclear under which circumstances a storage of customer data could take place. This is not a problem from a strictly legal point of view – a right may exist independently of how often it is used in practice. However, this issue can nonetheless lead to uncertainties concerning the application of the respective provisions, as further discussed below.

- The complexity of the ESPR's scope, which covers the entire value chain of numerous product groups,[6] may, under certain circumstances, lead to difficulties in defining the term "customer".

- The wording chosen by the European legislator is peculiar in that the phrase "explicit consent" does not appear in Art. 6 GDPR, which is explicitly referenced by Art. 10(1)(e) ESPR, but, e.g., in Art. 9 GDPR (i.e., in the context of so-called *sensitive* data), thus leading to unclarity concerning the kind of consent required by Art. 10(1)(e) ESPR.

4 In the following, to adequately contextualise these three issues, Section B first provides an overview of the main technical elements of a DPP. Then, these issues are discussed in more detail in Section C. A further problem involves determining the applicable sanctions in case of violations of Art. 10(1)(e) ESPR, i.e., whether GDPR-sanctions, ESPR-sanctions or potentially both should be applicable. This matter is discussed below in Section D. Section E concludes.

B. Digital Product Passport – Technical Overview

5 From a technical point of view, a DPP can be

2 In its normative function, the ESPR is thus primarily to be regarded as an authorisation norm (Ermächtigung). Cf eg Hans Kelsen, *Allgemeine Theorie der Normen* (Manz 1979) 82–84; Hans Kelsen, *Reine Rechtslehre* (2nd edn, Mohr Siebeck 2017) 114–16. For this reason, the clarification of most questions surrounding the DPP is left to tertiary law; cf Florian Fuchs-Zeitner, 'Der Digitale Produktpass (DPP) nach der neuen ÖkodesignVO – Klarheit erst durch geplantes Tertiärrecht' [2024] ZUR 534.

3 For a discussion of the problems associated with this definition, see Diogo Sasdelli and Verena Schmid, 'Legal Challenges and Technical Solutions to Decentralised Digital Product Passports' in Ulrike Lucke and others (eds), *INFORMATIK 2025*(Gesellschaft für Informatik 2025) 53. For a detailed discussion of the DPP concept beyond its purely legal framework, see eg Adrian Barwasser and others, *Der Digitale Produktpass* (Fraunhofer-Institut für Arbeitswirtschaft und Organisation 2024).

4 Cf Diogo Sasdelli and Verena Schmid, 'Legal Challenges and Technical Solutions to Decentralised Digital Product Passports' in Ulrike Lucke and others (eds), *INFORMATIK 2025* (Gesellschaft für Informatik 2025) 53, 62.

5 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) [2016] OJ L119/1.

6 Cf Anne-Christin Mittwoch, 'Der digitale Produktpass der Ökodesign-Verordnung. Passierschein zur erfolgreichen Zwillingstransformation im produktrecht?' [2024] Recht Digital 62.

conceptualised as a representation of a digital record, comprising detailed information concerning a particular product, spanning its entire lifecycle.[7] It is designed to enable informed decision-making throughout product lifecycles, hence also contributing to the circular economy.[8] Against this backdrop, the DPP can be understood as a transformation enabler beyond mere regulatory compliance.[9] To use an analogy, a DPP can be considered as an equivalent of a so-called *digital twin* of the corresponding physical product,[10] with its specified underlying data structure defined through frameworks such as the Asset Administration Shell (AAS). The AAS provides a standardised metamodel, which enables consistent description, management, and exchange of information concerning assets throughout their lifecycle.[11]

6 One possibility for the unification and effective management of the inherently heterogeneous data across different value chains in regard to the DPP system comes via the use of so-called ontologies and knowledge graphs (KGs).[12] A simplified DPP model[13] can be understood through the following interconnected elements:

- The DPP (i.e., the digital twin of the product);
- A persistent unique product identifier (UID), which is bi-uniquely linked to both the product and the DPP and establishes a connection (or linking) between the product and the DPP (or the data storage in which the DPP is stored);
- A decentralised data storage in which the DPP is stored;
- A data carrier that is physically linked to the product and can be read to call up the DPP using the persistent unique product identifier.

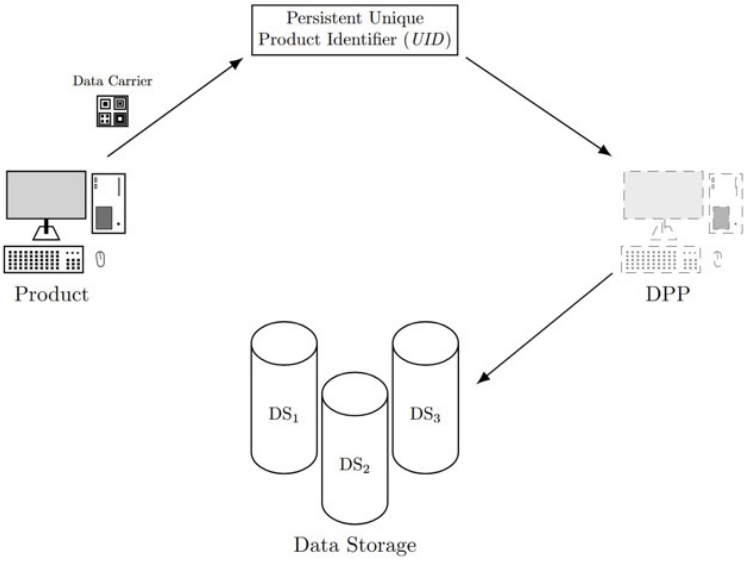

Fig.1. Simplified DPP Model

This simplified DPP model can be visualised in Fig. 1 (above):

7 Cf Monireh Pourjafarian and others, 'A Multi-Stakeholder Digital Product Passport Based on the Asset Administration Shell' in *IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA)* (IEEE 2023) 1.

8 Cf Steffen Foldager Jensen and others, 'Digital Product Passports for a Circular Economy: Data Needs for Product Life Cycle Decision-Making' [2023] *Sustainable Production and Consumption* 242.

9 Cf Arko Steinwender and others, 'From Analogue to Digital Product Passports in the Furniture Industry' [2024] *IFAC-PapersOnLine* 229.

10 Cf Joerg Walden, Angelika Steinbrecher and Maroye Marinkovic, 'Digital Product Passports as Enabler of the Circular Economy' [2021] *Chemie Ingenieur Technik* 1717; Anne-Christin Mittwoch, 'Der digitale Produktpass der Ökodesign-Verordnung. Passierschein zur erfolgreichen Zwillingstransformation im produktrecht?' [2024] *Recht Digital* 62.

11 Cf Monireh Pourjafarian and others, 'A multi-stakeholder digital product passport based on the asset administration shell' in *IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA)* (IEEE 2023) 1, 2.

12 Cf Anastasiia Belova and others, 'Bringing the Digital Product Passport to Life: Requirements Analysis for a Carbon Footprint Tracking System Using Knowledge Graphs and Data Spaces' in *Proceedings of the 40th ACM/SIGAPP Symposium on Applied Computing* (ACM 2025) 490, 493.

13 This model is strongly simplified. It sets aside, e.g., the complex data-space related architectures and exchanges required to enable the creation, modification and the reading of DPPs by different stakeholders.

C. Legality of Storing Customer Data in the Digital Product Passport

I. Personal Data and Customer Data in the Digital Product Passport

7 First, it seems appropriate to clarify under which circumstances one should expect the processing of personal data and, in particular, the storage of customer data in a DPP. According to Art. 7 ESPR, one would expect that the information requirements to be issued by the Commission will generally concern information about the product's performance in relation to parameters mentioned in Annex I ESPR, as well as information on the handling of the product throughout its entire life cycle (e.g., installation, maintenance, repair, disposal, etc.). Obviously, this kind of information does not normally constitute personal data. Only a more detailed analysis of the specific requirements set for DPPs reveals scenarios in which the processing of personal data might take place: Art. 9(2)(a) ESPR in conjunction with Annex III ESPR provides that the Commission may determine, in the respective delegated acts, that certain data be included in the DPP. Along these are, for example, information concerning the manufacturer (Annex III(1)(g) ESPR) and other so-called *economic operators* (Annex III(1)(h-k) ESPR), as well as so-called *digital product passport service providers* (Annex III(1)(l) ESPR). According to Art. 2 Subpara. 1(46) ESPR, an *economic operator* is defined as a *manufacturer*, an *authorised representative*, an *importer*, a *distributor*, a *dealer*, or a *fulfillment service provider*. All these actors can, according to the given definitions (cf. Art. 2 Subpara. 1(42), (43), (44), (45), (55) ESPR and Art. 2 Subpara. 10 ESPR in conjunction with Art. 3(11) of the Regulation (EU) 2019/1020), be natural persons, which would generally establish the data protection relevance of corresponding data processing. However, these actors are generally not to be understood as customers. This can be derived from the fact that the ESPR also contains a definition of "customer", which is excluded from the list in the aforementioned definition of "economic operator". Through a similar line of thought, it can be argued that, although digital product passport service providers may be natural persons, they are generally not to be considered as being customers.[14]

8 Beyond these passages, the ESPR provides almost no further relevant insights on the circumstances under which one would expect the processing of personal data, in particular of customer data, within a DPP. Among its enacting terms, data protection-relevant processing is only mentioned in Art. 10(1)(e) ESPR (i.e., the prohibition of storing customer data without their explicit consent) as well as in Art. 13(1)(4) ESPR and Art. 13(3) ESPR, which, however, do not refer to data processing within the DPP itself, but to data processing in connection with the administration of the DPP registry to be established according to Art. 13 ESPR. The recitals also contain no further relevant information. The relevant Recital 43 merely states that the processing of personal data within the framework of the ESPR must comply with applicable data protection rules (in particular the GDPR). Particularly striking is the fact that the last sentence of Recital 43 ESPR clearly contradicts Art. 10(1)(e) ESPR by stating: "Personal data of customers should not be stored in the digital product passport."

9 Analysing the documentation on the legislative process reveals an interesting development. In the original proposal from 2022, data protection-relevant processing was only mentioned in connection with the DPP registry – at that time in Art. 12(1)(3) and Art. 12(3), which basically correspond to Art. 13(1)(4) and Art. 13(3) of the final version of the ESPR.[15] In particular, the original proposal lacked the last sentence in the then Recital 35 (in the final version Recital 43 ESPR), according to which customer data should not be stored in the DPP. It is only with the amendments adopted by the European Parliament on 12.07.2023 that first developments towards the final wording can be identified. The then Recital 35 (now Recital 43) was supplemented by the sentence "Personal data of end-users should not be stored in the digital product passport." Accordingly, a *littera* "da" was added to Art. 9(1)(1) with the content: "personal data relating to the end-user of the product may not be stored in the product passport".[16]

14 In this respect, the German version of the ESPR has an interesting particularity: it employs two different wordings for the DPP service provider. It initially uses the wording 'Digitalproduktpass-Dienstleister' (eg in recitals 38 and 40 and in art 2 subpara 1(32) ESPR). From art 10(4) ESPR onwards, with the exception of art 11(3) ESPR, the term used is always 'unabhängiger Digitalproduktpass-Drittdienstleister'. Since this is a peculiarity of the German version, it seems reasonable to assume that this terminological inconsistency is due to clumsy drafting or even an error. These German wordings should therefore be considered synonyms, so that the definition of 'Digitalproduktpass-Dienstleister' given in art 2 subpara 1(32) ESPR should also be directly applicable to the term 'unabhängiger Digitalproduktpass-Drittdienstleister'.

15 Cf European Commission, 'Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC' COM(2022) 142 final https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022PC0142 accessed 12 November 2025.

16 Cf European Parliament, 'Amendments adopted by the European Parliament on 12 July 2023 on the proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements

The final version, in which "end-user" was replaced by "customer" in these passages, can be recognised at least since the version of 22.12.2023, which was formulated after the informal negotiations in the *trilogue* procedure.[17] Although the final version of the ESPR contains both the term "customer" and the term "end-user", the data protection provisions always refer to "customer". This development points to a conscious decision by the European legislator with regard to the data protection provisions in favour of using the term "customer" – as defined in Art. 2 Subpara. 1(35) ESPR – instead of the term "end-user" – as defined in Art. 3(21) of Regulation (EU) 2019/1020. The specific consequences of this decision for the requirements for the storage of customer data will be discussed in more detail below.

II. Definition of Customer Data

10 The provision in Art. 10(1)(e) ESPR states: "Personal data relating to customers shall not be stored in the digital product passport without their explicit consent in compliance with Article 6 of Regulation (EU) 2016/679 [i.e., the GDPR]". Thus, the term "customer data" contains two basic elements; in other words: "customer data" is (1) *personal data* that (2) relate to *customers*.

11 Although not explicitly prescribed in the ESPR, it is reasonable to assume that the definition of *personal data* given in Art. 4(1) GDPR is to be adopted here. Accordingly, personal data is "any information relating to an identified or identifiable natural person [...]". The rest of Art. 4(1) GDPR contains provisions on the circumstances under which a natural person is to be considered identified or identifiable.[18]

12 The relevant concept of customer is given in Art. 2 Subpara. 1(35) ESPR. Accordingly, a *customer* is "a natural or legal person that purchases, hires or receives a product for their own use whether or not acting for purposes which are outside their trade, business, craft or profession". As mentioned above, the European legislator has deliberately opted for using the term "customer" instead of the term "end-user" in matters pertaining to the protection of personal data. The definition of the latter term can be found, according to Art. 2 Subpara. 10 ESPR, in Art. 3(21) of the Regulation (EU) 2019/1020. Accordingly, an "end user" is "any natural or legal person residing or established in the Union, to whom a product has been made available either as a consumer outside of any trade, business, craft or profession or as a professional end user in the course of its industrial or professional activities". These terms are generally quite similar: both refer to natural *or* legal persons; both allow for commercial or business purposes, but also for private, non-commercial purposes. However, these terms differ in two main aspects:

- Only the *end-user* must have a residence or establishment in the Union. For the *customer*, no requirements regarding their residence are specified.

- To meet the definition of a customer, the product must be bought, leased, or received *for own use*. In contrast, for the "end-user", it is sufficient to be the person to whom the product has been *made available*. "Making available *on the market*" means, according to Art. 2 Subpara. 1(39) ESPR – or to the *ipsis litteris* identical Art. 3(1) of Regulation (EU) 2019/1020 – "any supply of a product for distribution, consumption or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge". The crucial difference between the two definitions is that in the case of the customer concept, due to the phrase "for own use", the form of acquisition (purchasing, hiring, receiving) is directly linked to the actor (the customer). The term "end-user" (in this definition, "end user" is written without hyphenation), on the other hand, allows for acquisition and use to be carried out by different actors. A *customer* is therefore an *end-user* with any residence or establishment who also carries out the acquisition of the corresponding product themselves (i.e., buys, hires, or receives it).[19]

13 This distinction has the direct consequence that the special protection introduced in Art. 10(1)(e) ESPR – i.e., the requirement of *explicit consent* for lawful storage in a DPP – will not apply to data subjects who do not acquire the respective product for their own use and are therefore not customers in the sense of Art. 2 Subpara. 1(35) ESPR. This would be the case, for example, if someone buys an electronic device as a

for sustainable products and repealing Directive 2009/125/EC' P9_TA(2023)0272 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023AP0272> accessed 12 November 2025.

17 Cf Council of the European Union, 'Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC – Letter to the Chair of the European Parliament ENVI Committee' ST 5147/2024 INIT <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CONSIL:ST_5147_2024_INIT> accessed 12 November 2025.

18 For more details on identifiability, see eg Andreas Bergauer in Hubert Jahnel (ed), *DSGVO* (2020) art 4 para 14–16.

19 In cases in which someone merely receives a product free of charge, there would be no meaningful difference between a customer and an end-user (beyond the requirement concerning residence or establishment). For *receiving*, according to common usage, is, unlike *buying* or *hiring*, a *passive* activity: whoever receives something is at the same time always the person to whom this thing is made available.

gift for a friend. The lawfulness of the storage of her data in a DPP would follow not Art. 10(1)(e) ESPR, but the usual data protection provisions – in particular Art. 6(1) GDPR. Since, however, neither the payment nor the source of the acquisition is relevant for satisfying the definition of "customer", the friend would, in this case, certainly be considered as being a customer, being thus entitled to the special protection of Art. 10(1)(e) ESPR.

14 The protection status of data subjects who have a dual nature, i.e., subjects who could be considered as customers in the sense described above while, at the same time, being potentially also subsumable under another category, constitutes a difficult question. This can occur *synchronously* – i.e., the person is simultaneously a customer and something else – or *asynchronously* – i.e., the person *becomes* a customer. Such scenarios can arise when the data subject acts as an *economic operator* or as a *DPP service provider* – so that personal data concerning them (as discussed above in section 2.1) may, under certain circumstances, have to be stored in the DPP according to the respective delegated acts – and they are simultaneously a customer or become a customer at a later date.[20]

15 In such cases (i.e., if the data subject assumes both the role of the customer and another role in the DPP architecture, e.g., as an economic operator), following the literal wording of the legal provisions and assuming no explicit consent was given by the data subject, the storage of data in a DPP would generally *not* constitute an unlawful processing in the sense of the GDPR – especially since Art. 6(1)(c) GDPR would likely be applicable. However, such a scenario would indeed violate Art. 10(1)(e) ESPR, which prohibits the storage of customer data in the absence of explicit consent. This result is problematic for two reasons. First, it seems to impose an unreasonable obligation of the respective controller – or DPP operator – to permanently check the customer status of any data subjects. Second, it leads to the fact that the realistic implementation of Art. 10(1)(e) ESPR would be tantamount to prescribing that any storage of personal data in a DPP require explicit consent, since *eo ipso* every person is always a potential customer. This, however, would contradict the explicit restriction of Art. 10(1)(e) ESPR as a special protection given only to personal data of *customers*.

16 Thus, it seems more appropriate to always evaluate the *customer status* in connection with the context underlying the data storage in the DPP: for the purposes of Art. 10(1)(e) ESPR, the storage of customer data in the DPP *sensu proprio* does not concern the mere storage of any personal data concerning customers, but rather the storage of such data *on the basis of* (or at least in direct connection with) the customer status of the respective data subjects. Against the objection that this solution would represent an interpretation that restricts the fundamental right to data protection compared to the literal interpretation outlined above, one could argue that the provisions of the GDPR – which are still applicable anyway –, guarantee a perfectly adequate level of protection, so that the restriction involved in the interpretation proposed here is based on a justifiable balancing of interests, especially in view of the aforementioned unreasonable consequences of the literal interpretation.

III. Explicit Consent

17 According to Art. 10(1)(e) ESPR, customer data may not be stored in the DPP without their "explicit consent" in compliance with Art. 6 GDPR. This wording is problematic because on the one hand it seems to require a qualified form of consent, namely *explicit* consent, but on the other hand it refers to Art. 6 GDPR, which, however, does not speak of *explicit* but merely of a not further specified, hence simple consent. It is therefore unclear whether simple consent in the sense of Art. 4(11) GDPR is sufficient to fulfil Art. 10(1)(e) ESPR or whether a qualified form of consent is required.

18 The term "consent" is defined in Art. 4(11) GDPR. Accordingly, "'consent' of the data subject means any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her". However, the GDPR contains no explicit definition of a qualified, *explicit* consent. This raises the question of the difference between mere consent on the one hand and a qualified, *explicit* consent on the other, which shall be discussed in the subsection at hand incidentally.

19 As already mentioned above, the definition in Art. 4(11) GDPR contains no provisions regarding a qualified, explicit consent. Similarly, Art. 6(1)(a) GDPR (and the corresponding Recital 32) only mention (simple) "consent", without any further qualifications. According to Art. 6(1)(a) GDPR, processing is only lawful if the data subject has given their (simple) consent. The phrase "explicit consent" first appears in Art. 9(2)(a) GDPR, i.e., the counterpart to Art. 6(1)(a) GDPR in the more specific case of processing of special categories of personal data. Accordingly, this more sensitive kind of data may only be processed if the data subject has *explicitly*

20 Another conceivable scenario would concern the storage of data concerning persons who, for example, as engineers are responsible for the safety of chemical or technical products.

consented to the data processing. Furthermore, an "explicit consent" is also required in the context of protection against automated individual decision-making, including profiling (Art. 22(2)(c) GDPR), and for data transfers to third countries or international organisations (Art. 49(1)(a)). The corresponding Recitals 51, 71, and 111 also use the phrase "explicit consent". All this suggests the interpretation that the European legislator has introduced not only the notion of a simple consent but also a qualified, explicit form of consent, which is to be regarded as an additional requirement in particularly sensitive cases.[21]

20 While this would *prima facie* justify the existence of "explicit consent" as a legal concept within the framework of the GDPR, the regulation still offers no adequate information to determine the content of this concept, i.e., the specific additional requirements associated with it. The European Data Protection Board (EDPB) adopts the view that *explicitness* refers to the way in which the data subject expresses their consent.[22] The EDPB attempts to clarify this rather vague explanation with examples: As an "obvious way to make sure consent is explicit", the EDPB gives the example of consent that is "expressly [confirmed] in a written statement".[23] This *explicit confirmation* could be achieved by the data subject signing the written statement in which the consent had been given.[24] In this sense, an *explicit consent* would be understood as a (simple) consent that is explicitly confirmed – for example, by a signature of the data subject. The EDPB thus seems to suggest a *two-step procedure* for an explicit consent: the (still simple) consent would first have to be given and then confirmed, thereby making it an explicit consent. This interpretation also seems to underlie other examples given by the EDPB:

- When obtaining consent via e-mail, the controller can, after receiving the consent, send a confirmation link or an SMS message with a confirmation code to the data subject, through which the consent is confirmed.[25]

- When obtaining oral consent in a telephone conversation, the data subject can confirm their given consent by pressing a button or also orally.[26]

21 However, the EDPB seems to abandon this two-step structure in other examples it provides. It claims, for instance, that a controller can obtain explicit consent from visitors to its website via a standard cookie banner, as long as the consent is clearly shown in the text – e.g., with the wording "I, hereby, consent to the processing of my data", but not with the wording "It is clear to me that my data will be processed".[27] This, however, blurs the line between simple and explicit consent.

22 In general, the legal-dogmatic clarification of this problem is not yet mature. The topic is relatively ignored in the literature; in most cases, reference is simply made to the not very enlightening statement of the EDPB, with some aspects concerning the explicitness of consent being emphasised. Some, for example, point out that explicit consent is characterised by an explicit reference to the respective nature of the data that will be processed.[28] Others emphasise that merely *implied* consent does not meet the requirement of explicitness.[29] Aspects

21 Cf eg Council of the European Union, 'Draft Statement of the Council's Reasons concerning the Position of the Council at First Reading with a View to the Adoption of a Regulation of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), and repealing Directive 95/46/EC' ST 5419/2016 ADD 1 REV 1 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST_5419_2016_ADD_1_REV_1> accessed 12 November 2025, 9, where explicit consent is described as a 'higher threshold'. Cf also Christopher Schulz in Peter Gola and Benedikt Heckmann (eds), *DSGVO* (3rd edn 2022) art 9 para 23.

22 EDPB, 'Guidelines 05/2020 on Consent under Regulation 2016/679' (2020) <https://www.edpb.europa.eu/our-work-tools/our-documents/guidelines/guidelines-052020-consent-under-regulation-2016679_de> accessed 12 November 2025, para. 93.

23 Ibid.

24 Ibid.

25 European Data Protection Board, 'Guidelines 05/2020 on Consent under Regulation 2016/679' (2020) <https://www.edpb.europa.eu/our-work-tools/our-documents/guidelines/guidelines-052020-consent-under-regulation-2016679_de> accessed 12 November 2025, para 98.

26 European Data Protection Board, 'Guidelines 05/2020 on Consent under Regulation 2016/679' (2020) <https://www.edpb.europa.eu/our-work-tools/our-documents/guidelines/guidelines-052020-consent-under-regulation-2016679_de> accessed 12 November 2025, para 95.

27 European Data Protection Board, 'Guidelines 05/2020 on Consent under Regulation 2016/679' (2020) <https://www.edpb.europa.eu/our-work-tools/our-documents/guidelines/guidelines-052020-consent-under-regulation-2016679_de> accessed 12 November 2025, para 96.

28 Christopher Schulz in Peter Gola and Benedikt Heckmann (eds), *DSGVO* (3rd edn 2022) para 23; Thilo Weichert in Jürgen Kühling and Benedikt Buchner (eds), *DSGVO* (1st edn 2017) art 9 para 47; Benedikt Buchner in Jürgen Kühling and Benedikt Buchner (eds), *DSGVO* (1st edn 2017) art 22 para 42.

29 Jens Ambrock and Moritz Karg, 'Ausnahmetatbestände der DS-GVO als Rettungsanker des internationalen Datenverkehrs?' [2017] *ZD* 154, 157; Hubert Jahnel in Hubert Jahnel (ed), *DSGVO* (2020) art 9 para 52; Peter Kastelitz,

such as the data subject's capacity of discernment and the associated voluntariness of the consent are also mentioned.[30]

23 However, these observations still do not provide a satisfactory basis for distinguishing *explicit* from merely *simple* consent, because all the aspects emphasised above can – at least in a weaker form – also be considered as requirements for simple consent in the sense of Art. 4(11) GDPR. The demand for an explicit reference to nature of the data to be processed can, for example, be derived on the one hand from the definition in Art. 4(11) GDPR, which links the consent to the respective specific case, and on the other hand from the purpose limitation principle (Art. 5(1)(b) GDPR). The capacity of discernment and voluntariness of the consenting subject, in their turn, result directly from Art. 4(11) GDPR. The exclusion of implied consent from the scope of explicit consent, which is almost universally represented in the literature, also proves to be unjustified upon closer examination. The concept of *implied consent* is constructed directly on the basis of the definition in Art. 4(11) GDPR, according to which consent is defined as "any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her". An "implied consent" would therefore be understood as any consent that is not given by a statement, but by a *clear affirmative action*.[31] In this sense, the scope of the term "explicit consent" would consist either in the corresponding complementary set to the scope of "implied consent" or in a proper subset thereof. In other words: explicit consent would be all and only those types of consent that are given in the form of (possibly further qualified) *statements*.

24 Despite its elegance, this conceptual construction must be rejected. In general, it seems inappropriate to exclude, as a matter of principle, *any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her* from being an explicit consent.

25 In addition, some of the examples of explicit consent cited by the EDPB – such as pressing buttons or accessing links – can certainly be considered as type of *implied* consent, i.e., consent based on affirmative actions instead of on statements.[32] *Last but not least*, the exclusion of implied consent from the scope of explicit consent would be inconsistent with the case law of the ECJ, which, when considering a case in which a person had manifestly made public information about their sexuality in a panel discussion open to the public, considered that this does not allow the conclusion that the person had given their "consent within the meaning of Article 9(2)(a) of the GDPR to processing of other data relating to his or her sexual orientation by the operator of an online social network platform".[33] If it were true that an implied consent, as a matter of principle, could not constitute an explicit consent, the ECJ would only need to point this out, instead of examining the suitability of the action as consent to a specific processing. The fact that the ECJ examined the matter means, by way of *e contrario* reasoning, that implied consent can, under certain circumstances, also meet the requirements for explicit consent.[34]

Helmut Hötzendorfer and Christoph Tschohl in Nikolaus Knyrim (ed), *DSGVO* (2020) art 9 para 31; Christopher Schulz in Peter Gola and Benedikt Heckmann (eds), *DSGVO* (3rd edn 2022) art 9 para 23; Daniel Pauly in Boris Paal and Daniel Pauly (eds), *DSGVO* (3rd edn 2021) art 49 para 7; Arne Klement in Spiros Simitis, Gerrit Hornung and Indra Spiecker genannt Döhmann (eds), *DSGVO* (2025) art 7 para 28; Jonathan Petri in Spiros Simitis, Gerrit Hornung and Indra Spiecker genannt Döhmann (eds), *DSGVO* (2025) art 9 para 33.

30 Cf Mario Martini in Boris Paal and Daniel Pauly (eds), *DSGVO* (3rd edn 2021) art 22 para 38; Daniela Alaattinoğlu, 'Rethinking Explicit Consent and Intimate Data: The Case of Menstruapps' [2022] *Feminist Legal Studies* 157.

31 Stefan Stemmer in Heinrich Wolff, Christoph Brink and Carl von Ungern-Sternberg (eds), *DSGVO* (52nd edn 2025) art 7 para 84; Arne Klement in Spiros Simitis, Gerrit Hornung and Indra Spiecker genannt Döhmann (eds), *DSGVO* (2025) art 7 para 28.

32 In a slightly weaker form, the distinction between implied and explicit consent is based on the argument that the latter requires at least an 'affirmative gesture' (bejahende Geste). Cf, for example, Jens Ambrock and Moritz Karg, 'Ausnahmetatbestände der DS-GVO als Rettungsanker des internationalen Datenverkehrs?' [2017] *ZD* 154; Towfigh and Ulrich in Nils-Christian Sydow (ed), *DSGVO* (2nd edn 2018) art 49 para 5, who, however, with the extremely unfortunate wording 'Ausdrücklich ist die Einwilligung, wenn sie nicht konkludent erfolgt ist, mithin auf einer bejahenden Geste beruht' (ie, consent is explicit when it is not given implicitly, but is based on an affirmative gesture) get somewhat tangled in their words, as this would literally mean that only consent based on gestures could be explicit, which is, of course, nonsensical. In general, the inclusion of gestures in the scope of explicit consent leads to a blurring of the distinction between explicit and implied consent. Cf also Benedikt Buchner and Jürgen Kühling in Jürgen Kühling and Benedikt Buchner (eds), *DSGVO* (4th edn 2024) art 7 para 58b.

33 Cf Case C-446/21 Maximilian Schrems v Meta Platforms Ireland Ltd EU:C:2024:834, para 82.

34 Against this would prima facie speak Case T-343/13 *XYZ v European Data Protection Supervisor* (EGC, 3 December 2015) para 62, which states that explicit consent is not satisfied

26 Some clarity in this otherwise quite challenging conceptual construction can be found, assuming a change of perspective, precisely in Art. 10(1)(e) ESPR, which was initially seen as the root of the problem. Its supposed problem is that, on the one hand, according to it, the storage of customer data in the DPP requires *explicit consent*, while on the other hand, it explicitly refers to Art. 6 GDPR, which, however, only requires an unspecified or simple, not an explicit consent, which appears contradictory. This problem, however, is based on the assumption that the data protection framework established by the GDPR actually recognises two types of consent, i.e., that it distinguishes between explicit and non-explicit (e.g., implied) consent. If this assumption is abandoned, the problem disappears. Indeed, a harmonious interpretation of Art. 10(1)(e) ESPR in conjunction with Art. 6(1)(a) GDPR, which preserves the fundamental coherence of the European legislator, suggests, rather, that there is in fact only one form of consent, or that the *explicitness* of an explicit consent does not refer to a special category or form of consent, but to *something else*.

27 All four cases in which explicit consent is required – particularly sensitive data (Art. 9(2)(a) GDPR), automated decisions (Art. 22(2)(c) GDPR), data transfers to third countries (Art. 49(1)(a) GDPR), and now also the storage of customer data in the DPP (Art. 10(1)(e) ESPR) – can be considered as situations requiring a particularly high degree of protection. From this realisation, it can be concluded that the explicitness of consent is intended to grant special protection against unlawful processing, which, in turn, serves the purpose of protecting against a violation of the underlying fundamental right to the protection of personal data. Now, even a simple consent in the sense of Art. 4(11) GDPR – i.e., basically an informed, voluntary, unambiguous declaration of the data subject's consent – already excludes a violation of this fundamental right, due to its nature as a personality right.[35] If the data subject actually consents to the processing (in an informed, voluntary manner), one can hardly speak of a violation of their personality. For the purpose of ensuring a special level of protection with regard to the fundamental right to the protection of personal data, the explicitness of an explicit consent cannot therefore refer to exclusively allowing a special, qualified form of consent. Instead, it must refer to ensuring that consent was *actually* – or rather, *factually* – given. Explicitness of consent refers therefore not to additional requirements for the already demanding definition of consent in the sense of Art. 4(11) GDPR (cf. also the requirements in Art. 7 GDPR), but to additional requirements concerning the *proof* that consent has actually been given for the respective processing. Explicitness is therefore not to be regarded as a realisation of the principle of lawfulness (Art. 5(1)(a) GDPR), but as a realisation of the principle of accountability (Art. 5(2) GDPR). It means specifically that, whenever explicit consent is required, one must proceed carefully and always demand high standards when assessing the evidence of consent provided by the controller.

28 Concluding, one can therefore assume that, in practice, the proof of a merely *implied* consent will generally not succeed under the additional requirements arising from explicitness. At the same time, however, it will not be possible to exclude *a priori* that an implied consent could, under certain circumstances, nevertheless meet these requirements.[36] The same applies with regard to Art. 10(1)(e) ESPR for the storage of customer data in the DPP.

D. Sanctions

29 Finally, the question must be addressed as to which sanctions can be imposed in the event of a violation of Art. 10(1)(e) ESPR. It is important to distinguish between two scenarios, i.e., whether (1) the action leading to a violation of Art. 10(1)(e) ESPR simultaneously also constitutes a violation of the GDPR (e.g., of Art. 6 GDPR, or possibly also of Art. 9 GDPR) or (2) Art. 10(1)(e) ESPR is violated without also incurring in a violation of the GDPR.

if consent is 'implicitly derived from the actions of the data subject'. However, this statement does not concern the notion of 'explicit consent' under the GDPR, but rather art 10(2)(a) of Regulation (EC) 45/2001. The relevant definition was therefore that in art 2(h): '"the data subject's consent" shall mean any freely given specific and informed indication of his wishes, signifying his agreement to personal data relating to him being processed'. Unlike the corresponding definition in the GDPR, this definition contains no explicit indication that implied consent may be sufficient; it is therefore a priori much narrower.

35 Cf eg art 8(2) CFR, which refers only to 'consent'.

36 This view is apparently also adopted by Thilo Weichert in Jürgen Kühling and Benedikt Buchner (eds), *DSGVO* (1st edn 2017) art 9 para 47, who argues that, with regard to explicit consent, conclusive action is largely excluded ('schlüssiges Handeln weitgehend ausgeschlossen ist'). Likewise, Peter Schantz in Spiros Simitis, Gerrit Hornung and Indra Spiecker genannt Döhmann (eds), *DSGVO* (2025) art 49 para 12, appears to lean towards this view by arguing—in a way coherent with as a continuation of the legal situation under art 26(1)(a) of the Data Protection Directive (Directive 95/46), which was replaced by the GDPR—that, for the lawfulness of data transfers to third countries, it is necessary that the data subject gives consent without any doubt ('die betroffene Person ohne jeden Zweifel ihre Einwilligung [abgibt]').

30 A violation of Art. 10(1)(e) ESPR, for example, is generally *not* accompanied by a violation of the GDPR if customer data is processed without (explicit) consent, but on the basis of another legally relevant reason under Art. 6 GDPR. It is also possible to conceive of situations in which the storage of customer data occurs outside the scope of the GDPR (Art. 2 and 3 GDPR). This could be the case, for example, if a manufacturer (in this case generally also the controller in the sense of Art. 4(7) GDPR) without an establishment in the Union stores data of customers in the DPP who have not given their consent and are not located in the Union, but the corresponding products, together with the DPP, are introduced into the internal market by the importer. In such cases, only the ESPR is violated, so that any sanctions are to be imposed according to the standards set out in Art. 74 ESPR.

31 According to Art. 74(1) ESPR, Member States must lay down rules on sanctions applicable to infringements of the ESPR. These sanctions must also be effective, proportionate, and dissuasive. According to Art. 74(2) ESPR, several aspects are to be taken into account, such as the nature, gravity, and duration of the infringement, the financial situation of the natural or legal person held responsible, whether the infringement was repeated or a one-off event, among other factors. Finally, Art. 74(3) ESPR provides that Member States may impose at least fines or a temporary exclusion from public procurement as sanctions.

32 Compared to the GDPR, which in its Art. 83 sets precise upper limits for fines for infringements of certain provisions, the ESPR contains only relatively vague provisions on applicable sanctions. Here, it seems reasonable to take the sanctions listed in the respective implementation laws for the older Ecodesign Directive (2009/125/EC), which has now been replaced by the ESPR, as a reference value. Comparing different Member States, however, leads to a rather colourful picture: In Germany, for example, according to § 13 of the Act on the Ecodesign of Energy-related Products (*Gesetz über die umweltgerechte Gestaltung energieverbrauchsrelevanter Produkte –EVPG*), fines of up to €10,000, in some cases even up to €50,000, can be imposed. The Portuguese *Decreto-lei n.º 12/2011* is at a similar level, with its Art. 16 providing for fines from €3,000 to €44,750. The sanctions are somewhat stricter in Italy, which, according to Art. 17 of the *Decreto Legislativo 16.02.2011, n. 15*, can reach a height of up to €150,000 in the most serious cases. Sky-high fines can be imposed in Spain: The Spanish *Real Decreto 187/2011* refers for sanctions to the provisions of the *Ley 21/1992*, according to whose Art. 34 fines of up to 100 million euros are possible for very serious (*muy grave*)[37] cases. In a rather striking contrast, the Austrian Ecodesign Ordinance (*Ökodesign-Verordnung* – ODV 2007) provides for *no* fines at all. According to § 7(1) ODV 2007, the market surveillance authority, in case of sufficient indications of an infringement, *shall take the necessary measures, which may range from prohibiting the placing on the market of the product concerned [...] depending on the severity of the infringement.*

33 In the absence of more specific provisions concerning sanctions, this regulatory dissonance is likely to persist in the new legal framework introduced by the ESPR. The applicable sanction is therefore likely to vary greatly depending on the Member State. This is particularly problematic when – as is to be expected with violations of Art. 10(1)(e) ESPR – the respective violation is, *ceteris paribus*, felt cross-border, and thus a parallel initiation of corresponding fine proceedings in several Member States seems likely. This leads to the question of the possibility of *double jeopardy*, which also arises in the context of violations of Art. 10(1)(e) that simultaneously also constitute a violation of the GDPR – e.g., the storage of customer data in the DPP without any legal basis. Specifically, it must be examined here whether double jeopardy in such cases is compatible with the principle of *ne bis in idem* or not.

34 The principle of *ne bis in idem* is a classic principle of criminal procedure law and, as such, is codified in several national and international legal systems – often with the character of a fundamental right. In European law, the principle is enshrined in Art. 50 CFR, in Art. 4 of Protocol 7 to the ECHR, and in Art. 54 of the Schengen Implementing Convention. In Art. 50 CFR, the principle is described as the right "not to be tried or punished twice in criminal proceedings for the same criminal offence". Specifically, the provision reads: "No one shall be liable to be tried or punished again in criminal proceedings for an offence for which he or she has already been finally acquitted or convicted within the Union in accordance with the law" The terms "criminal", "criminal offence", and "criminal proceedings" are to be interpreted rather broadly – also due to the fundamental rights character of the principle. Thus, fines imposed by authorities according to administrative law provisions or corresponding proceedings also fall under Art. 50 CFR, as long as they have a high degree of severity and a repressive objective is pursued with them.[38] Furthermore, the

37 According to art 31(1)(a) of Real Decreto 187/2011, very serious infringements include, among others, the intentional violation of relevant provisions where this results in a high risk to, or damage for, individuals. Given the data-protection character of art 10(1)(e) ESPR, it does not seem implausible that violations of this provision could also be classified as very serious.

38 Cf eg Case C-27/22 *AGCM v Ryanair DAC* EU:C:2023:663, headnote 1; Case C-857/19 *DB v Commissione nazionale per*

principle protects not only natural persons, but also companies or legal persons from double jeopardy.[39] Thus, the applicability of the principle of *ne bis in idem* against double jeopardy for violations of Art. 10(1)(e) ESPR is *prima facie* established.

35 Furthermore, the application of the principle *ne bis in idem* requires, in addition to the determination of a previous final decision (the so-called *bis* condition), also a two-stage examination of the identity of the facts and of the offender (the so-called *idem* condition).[40] Both identities are likely to exist frequently in cases of multiple sanctions for violations of Art. 10(1)(e) ESPR or, if applicable, also of Art. 6 GDPR. However, when examining the identity of the offender, it should be noted that the controller in the sense of Art. 4(7) GDPR and the processor in the sense of Art. 4(8) GDPR. will not necessarily coincide with the actors punishable for violations of Art. 10(1)(e) ESPR. Manufacturers who place products on the market or put them into service must, according to Art. 27(1)(c) ESPR, ensure that a DPP is available for the product in accordance with Art. 9 ESPR or with the corresponding delegated acts. Importers, in turn, may, according to Art. 29(2)(c) ESPR, only place products on the market that meet the same requirement. According to Art. 34 ESPR, the obligations for manufacturers can, under certain circumstances, also apply to distributors. Art. 9(1) ESPR, in its turn, explicitly refers to the fulfilment of the DPP-requirements in Art. 10 ESPR, which also include the data protection provision in Art. 10(1)(e) ESPR. Thus, within the framework of the ESPR, several actors (manufacturers, importers, and distributors) can simultaneously be held accountable for violations of Art. 10(1)(e) ESPR, even without them being subject to fines in the sense of the GDPR due to them eventually lacking the status of controllers or processors.

36 In the case of multiple sanctions against the same actor, the applicability of the principle of *ne bis in idem* will generally be established. Thus, double jeopardy (or even just renewed prosecution) would, in principle, be unlawful. Any exceptions to this would have to meet the relatively high hurdles of Art. 52(1) CFR: they would have to be provided for by law and be proportionate, respect the essence of the CFR, and genuinely meet objectives of general interest or the need to protect the rights and freedoms of others. Since the legal interest protected by Art. 10(1)(e) ESPR is obviously the same as the one protected in Art. 6 GDPR (i.e., the protection of personal data), it is to be generally assumed that in the case of a simultaneous violation of both provisions, no exception to the principle of *ne bis in idem* according to Art. 52 CFR would be justified.

37 As a result, the applicable penalty for any violations of Art. 10(1)(e) ESPR (whether with or without a simultaneous violation of Art. 6 GDPR) is likely to depend heavily on which competent authority prosecutes the violation and which proceeding is concluded first. This unfortunate, uncertain legal situation is largely due to the fact that the ESPR, like the former Ecodesign Directive – and unlike the GDPR – has not established any concrete uniform standards for the imposition of sanctions. In this context, Art. 10(1)(e) ESPR is particularly problematic. For even if it could be argued to some extent that the different levels of penalties for violations of the ESPR would be justified by different weighing of the respective legal interests in the individual Member States, significant deviations between sanctions against violations of Art. 10(1)(e) ESPR and Art. 6 GDPR would hardly be justifiable; for in this case, both sanction frameworks are applicable *simultaneously* and in the *same Member State*. The applicability of different levels of penalties in this case is likely to constitute a violation of the principle of proportionality of the penalty (e.g., in the sense of Art. 49(3) CFR). This problem could be overcome by clearly defining under which specific circumstances which sanction framework is applicable. In this context, it would not seem unjustified to argue that, in the case of a simultaneous violation of Art. 10(1)(e) ESPR and Art. 6 GDPR, fines should only be imposed according to the milder penalty framework – generally, most likely that of the ESPR. This interpretation, although *in bonam partem*, leads to the paradox result that Art.

le società e la borsa (CONSOB) EU:C:2021:139, headnote 2; Markus Kubiciel and Gerson Großmann in Jürgen Meyer and Ulrich Hölscheidt (eds), *EU-Grundrechtecharta* (latest edn, Year) art 50 para 9; cf also Daniel Krause, 'Das Verbot der Doppelbestrafung (ne bis in idem, Art. 54 SDÜ, Art. 50 GRCh) bei Wirtschaftsstrafverfahren im Internationalen Raum mit Unternehmensbezug' (2025) *NStZ* 9, 14–15.

39 Cf eg Case C-857/19 *DB v Commissione nazionale per le società e la borsa (CONSOB)* EU:C:2021:139, headnote 2; Case C-117/20 *bpost SA v Autorité belge de la concurrence* EU:C:2022:202, headnote; Case C-151/20 *Nordzucker AG v Bundeskartellamt* EU:C:2022:203, headnote 1; cf also Daniel Krause, 'Das Verbot der Doppelbestrafung (ne bis in idem, Art. 54 SDÜ, Art. 50 GRCh) bei Wirtschaftsstrafverfahren im Internationalen Raum mit Unternehmensbezug' (2025) *NStZ* 9, 10–11.

40 The previous case law of the Court of Justice required, in competition law cases, as a third stage, the identity of the protected legal interests (cf eg Case C-857/19 *DB v Commissione nazionale per le società e la borsa (CONSOB)* EU:C:2021:139, para 43). This peculiar interpretation, which resulted in an unjustified special status of the principle *ne bis in idem* in competition law, was revised in March 2022 (Case C-117/20 *bpost SA v Autorité belge de la concurrence* EU:C:2022:202, para 35; Case C-151/20 *Nordzucker AG v Bundeskartellamt* EU:C:2022:203, para 39), and was confirmed in September 2023 (Case C-27/22 *AGCM v Ryanair DAC* EU:C:2023:139, para 67); cf also Martin Klusmann and Ole Schley, 'Einmal ist keinmal? Der EuGH und der Grundsatz *ne bis in idem*' (2022) *NZKart* 264, 266.

10(1)(e) ESPR, which obviously intended to provide special level of protection for customer data, instead makes the already high protection of the GDPR more flexible (by reducing the applicable penalty) and thus could, under certain circumstances, rather represent an *innovatio legis in melius* for controllers or data processors.

E. Concluding Remarks

38 Personal data concerning customers can be stored in a DPP in various scenarios. In these cases, the special protection provided by Art. 10(1)(e) must be observed, according to which such data may only be stored with explicit consent by the data subject. In this context, however, it seems appropriate to always consider the customer status *in connection with* the corresponding data storage in the DPP. This means that the special protection in Art. 10(1)(e) ESPR only applies to data that was stored because of or at least in direct connection with the customer status of the respective data subjects. This restrictive interpretation seems necessary to avoid unreasonable results in cases in which personal data of economic operators, DPP service providers or other actors in the DPP architecture is lawfully stored in the DPP on bases other than explicit consent, and these actors either simultaneously fulfil the conditions of the definition of customer or become a customer at a later date, which would result in the storing of their data being a violation of Art. 10(1)(e) ESPR.

39 In practice, due to the requirement of explicitness, high standards for the proof of consent are to be expected. Implied consent, although not to be excluded *a priori*, will generally not meet these requirements.

40 With regard to the applicable sanctions, the regulatory framework of the ESPR leads to major challenges with respect to the principle of *ne bis in idem*. Art. 10(1)(e) ESPR thereby leads to additional difficulties by the fact that violations of this provision could also constitute violations of Art. 6 GDPR, which makes it difficult to determine an applicable sanction framework. Insofar as no satisfactory solution seems to be found for this problem, one would expect that this issue will soon occupy the ECJ, and possibly also the European legislator.

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