RUCH PRAWNICZY, EKONOMICZNY I SOCJOLOGICZNY
Rok LXXXVII – zeszyt 4 – 2025
https://doi.org/10.14746/rpeis.2025.87.4.08

DOMINIK GABOR[a]

LABELLING DEEPFAKES UNDER EU LAW: THE AI ACT AND BEYOND

OZNACZANIE DEEPFAKE'ÓW W PRAWIE UNIJNYM: AKT W SPRAWIE SZTUCZNEJ INTELIGENCJI I NIE TYLKO

Generative artificial intelligence (GenAI) can create various types of content. Some of this content includes so-called deepfakes, which resemble actual content, such as the likeness of famous individuals, but are not genuine. The latest EU regulation – the Artificial Intelligence Act (AI Act) – introduces the requirement to label such content as artificially generated or manipulated. This article discusses these obligations and explains the provisions of the AI Act. It also outlines the practical implications of the new regulations and how to comply with them. However, the AI Act is not the only legal framework mandating the labelling of AI-generated content. The article's thesis, which was ultimately confirmed, is that the AI Act is not the sole source of such obligations under EU law. Similar requirements also stem from EU competition and consumer protection laws, specifically Directive 2006/114 and the Unfair Commercial Practices Directive. The article provides a detailed analysis of these directives, which may serve as a basis for requiring market participants to label GenAI-generated content. It also explains how entities using AI can comply with these obligations, offering examples of specific actions. The article was prepared using the legal-dogmatic research method.

Keywords: deepfake; artificial intelligence; misleading advertisement; unfair trade practice; AI Act

Generatywna sztuczna inteligencja (GenAI) jest w stanie tworzyć rożnego rodzaju treści. Część z nich to tzw. *deefakes*, które przypominają rzeczywiste treści, np. wizerunku znanych osób, ale nimi nie są. Najnowsze unijne rozporządzenie – Akt ws. sztucznej inteligencji (Akt ws. AI) – wprowadza obowiązek oznaczania tego rodzaju treści jako sztucznie wygenerowane lub zmanipulowane. W artykule omówiono te obowiązki, wyjaśniając treść przepisów Aktu ws. AI. Artykuł przedstawia także praktyczne skutki nowych przepisów oraz możliwości dostosowania się do nich. Jednakże nie tylko Akt ws. AI ustanawia postanowienia skutkujące koniecznością oznaczania treści generowanych przez sztuczną inteligencję. Tezą artykułu, którą ostatecznie udało się potwierdzić, jest stwierdzenie, że nie tylko Akt ws. sztucznej inteligencji w zakresie prawa unijnego stanowi o obowiązku oznaczania treści wynikających z działania GenAI. Tego rodzaju obowiązki wynikają także z unijnego prawa ochrony konkurencji i konsumentów: dyrektywy 2006/114 oraz dyrektywa o nieuczciwych praktykach handlowych. Artykuł prezentuje także szczegółowe opracowanie przepisów powyższych dyrektyw, które mogą służyć jako podstawa do nakazywania uczestnikom rynku oznaczania wytworów GenAI. Artykuł wyjaśnia również, w jaki sposób podmioty korzystające z AI mogą uczynić zadość tym obowiązkom i przedstawia przykłady konkretnych działań. Artykuł został przygotowany z wykorzystaniem metody badań dogmatycznoprawnych.

[a] University of Silesia in Katowice, Poland / Uniwersytet Śląski w Katowicach, Polska
dominik.gabor@us.edu.pl, https://orcid.org/0000-0003-3405-4026

RPEiS 87(4), 2025: 139–160. © WPiA UAM, 2025. ISSN (Online) 2543-9170 ISSN (Print) 0035-9629

Słowa kluczowe: deepfake; sztuczna inteligencja; reklama wprowadzająca w błąd; nieuczciwa praktyka handlowa; Akt ws. sztucznej inteligencji

I. INTRODUCTION

Artificial intelligence (AI) – developments in algorithms that fulfil generative functions, known as generative artificial intelligence (GenAI), have enabled the production of a wide range of content. Generative artificial intelligence is an AI model that allows the creation of new information based on training data. These types of models generate human-like content (García-Peñalvo & Vázquez-Ingelmo, 2023, p. 8). Users of such systems can create texts, graphics, sounds, and videos. At the same time, so-called multimodal systems are being developed, which combine several functions, enabling the creation of various types of content within a single ecosystem, for example, Gemini (Milmo, 2023).

Content generated using GenAI may appear as if it were created by a human, even if it has not been refined, for example, by an editor, graphic designer, or musician (Böhm et al., 2023, p. 2; Jang et al., 2024, p. 2). These are so-called deepfakes, an effect of generative AI – content produced using Generative Adversarial Networks-based technologies, which looks as if it were created by humans created (Nalbant et al., 2023, p. 377; Park et al., 2024, p. 11674). This is manipulated digital content that can take various forms, such as audio or video (Doss et al., 2023, p. 1; Truby & Brown, 2021, pp. 141–143). Deepfakes raise numerous legal concerns and risks. Legal issues arising from the widespread use of generative systems include authorship of AI-generated works (Geiger, 2024, p. 1131–1133), cybercrime (Arslan, 2023, p. 707), spoofing (Lin et al., 2023, pp. 83–84), the protection of personal data (Duffourc et al., 2024, pp. 244–262) and the protection of personal image rights.

The significance of this phenomenon is underscored by the fact that, according to McKinsey & Company, GenAI could add the equivalent of USD2.6 trillion to USD4.4 trillion annually to the global economy (Chui et al., 2023, p. 3). For comparison, the GDP of Poland in 2023, according to the World Bank, amounted to approximately USD808 billion – current prices (World Bank Group, 2024).

Many issues arising from the presence of GenAI-generated content in the digital space can be avoided, or at least the possibility of detecting such content can be enhanced by labelling all artificial content as created using AI and indicating when it has not been adequately edited by a human. This is one of the reasons why social media platforms, such as Meta and TikTok, are introducing requirements to label such content uploaded to their platforms (Bickert, 2024; TikTok, n.d.).

The EU legislator has also identified the necessity of labelling artificial content as generated using AI systems, particularly in the context of deep-

fakes, under Article 50 of the Artificial Intelligence Act (AI Act).[1] However, although this obligation is explicitly stated in the AI Act, it is not the only European Union (EU) regulation under which such content should be appropriately labelled. Additional legal acts that I have identified include: Directive 2006/114/EC of the European Parliament and of the Council of 12 December 2006 concerning misleading and comparative advertising (Directive 2006/114)[2] and the Unfair Commercial Practices Directive (UCPD).[3]

The thesis of my article is that the obligation to label content generated by GenAI does not arise solely from the AI Act. In addition, this paper sets out to clarify the principles of labelling artificial content as presented in the relevant legal acts. In my analysis, I draw not only from the legal provisions themselves but also from judgments of the Court of Justice of the European Union. Section II describes the obligations related to labelling content generated by GenAI under the AI Act: I adopt (and explain why) a narrower definition of *deepfake* than in other parts of the article. Section III provides an analysis of Directive 2006/114, and section IV addresses the UCPD. In section V, I explain the significance of the codes of practice resulting from the discussed legal acts. The article concludes with a summary of the main findings. The article was prepared using the legal-dogmatic research method.

II. THE AI ACT

The AI Act is the primary legal act in EU law that establishes the rules for labelling deepfakes. In Article 50, this regulation outlines obligations in this regard for both AI system providers (defined in Article 3(3) AI Act) and their deployers (defined in Article 3(4) AI Act).

At the outset, it is essential to note that Article 50 of the AI Act has not yet entered into force. The rules outlined in this provision will only be enforceable from 2 August 2026 (Article 113 AI Act), even though the legal act came into force on 1 August 2024, under Article 113 of the AI Act, following its publication in the *Official Journal of the European Union* on 12 July 2024. However, this legal act requires the development of a compliance methodology

[1] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonized rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L, 2024/1689, 12.7.2024.

[2] Directive 2006/114/EC of the European Parliament and of the Council of 12 December 2006 concerning misleading and comparative advertising, OJ L 376, 27.12.2006, pp. 21–27.

[3] Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council, OJ L 149, 11.6.2005, pp. 22–39.

in advance, for example, to assess the type of AI system, including in the work environment (Cristofolini, 2024, pp. 82–85).

This is why it is necessary to analyse the obligations arising from it, including those concerning the labelling of deepfakes. At this point, it is worth mentioning the AI Pact initiative, one of the pillars of which is the early implementation of some of the solutions provided under the AI Act (European Commission, 2025).

It is also necessary to clarify that in this chapter of the article, I use a narrower definition of *deepfake* than that presented in the Introduction. According to the AI Act, a deepfake is AI-generated or altered image, audio, or video content that mimics real persons, objects, places, entities, or events, creating a false impression of authenticity (Article 3(60) AI Act).

This is a restrictive definition, as it does not consider textual content and applies only to existing persons, objects, places, entities, and events, thus excluding entities that do not currently exist but could plausibly exist. For example, a GenAI-generated persona – such as the voice, image, or appearance of a non-existent police officer in the 'grandparent scam' (FBI, 2012) method – would not be considered a deepfake. I consider this limitation of the definition unjustified. There is no reason to exclude textual content, especially since the AI Act imposes an obligation to label generated or manipulated texts (Article 50(4) AI Act). Even if textual content were included in the definition, the exception contained in Article 50(4) AI Act could still be preserved.

Additionally, I view the inclusion of the 'existing' requirement as an error on the part of the EU legislator, as it would be more protective for individuals interacting with GenAI-generated deepfakes if the definition also encompassed entirely fictional characters that would nonetheless create an impression of authenticity or truthfulness. The essential effect of deepfakes would still be captured by the definition. At the same time, it would not unnecessarily exclude factual scenarios that should be considered particularly harmful and abusive, as referenced in Recital 28 of the AI Act, from which this regulation aims to protect society.

The obligations discussed below apply to all types of AI system that are defined in Article 3(1) AI Act. This also includes general-purpose AI systems described in Article 3(63) AI Act, as indicated in Article 50(2) and (4) AI Act. This means that the EU legislator considers deepfakes to be one of the critical areas requiring safeguards under the AI Act.

In a broader context, it is pertinent to raise the question of how to consider situations in which the prohibition on prohibited AI practices in Article 5 AI Act and the obligation to label deepfake content will be simultaneously violated. While this issue falls outside the scope of the present article, it remains an important aspect for future discussion and analysis.

1. Providers' obligation

The first obligation regarding labelling content generated or modified by AI concerns the providers of any AI system, including general-purpose AI sys-

tems, capable of generating synthetic audio, image, video, or text content. In such cases, it is not necessary for this content to meet the definition of a deepfake or to be classified as such (Article 50(2) AI Act).

Certain AI system providers are excluded from this obligation. First, the obligation does not apply to entities providing AI systems that support only standard editing processes (Article 50(2) AI Act). These systems do not operate independently but offer editing capabilities to the user, such as graphics or text. An example would be an AI system that suggests improvements to a graphic designer's color palette or a system that checks the accuracy of written text, such as Grammarly. While these systems may intervene in graphics or text, by changing specific elements, they do so in an assistive manner, with the user making the final decision based on the AI system's suggestions. A further exclusion applies to AI systems that do not significantly alter the input data or its semantics (Article 50(2) AI Act).

In the context of this exception, careful consideration is needed to assess whether a change is significant. As in any similar case, the essential evaluations will come from judicial decisions and the practice of relevant authorities. A straightforward approach could assume that a significant change occurs when at least 50% of the content is altered. However, this might not be accurate when 49% of crucial content is modified and 51% remains unchanged, though insignificant in the overall context of the material. Additionally, legal provisions may allow the exclusion of this obligation in the context of detecting, preventing, investigating, or prosecuting criminal offences (Article 50(2) AI Act).

The basis of the obligation for the provider of the above-described AI systems is to ensure that every output generated by the algorithm is labelled as artificially generated or manipulated (Article 50(2) AI Act). The condition is that such labelling must be possible in a machine-readable format, such as CSV, XML, SDMX, JSON, or XHTML (points 4.2.(a), 5.2.(a) Annex to Commission Implementing Regulation (EU) 2023/138 of 21 December 2022 laying down a list of specific high-value datasets and the arrangements for their publication and re-use[4]), and must be detectable (Article 50(2) AI Act).

Since no further explanations are provided in this regard, detectability refers to detectability in general, not limited to detection by other AI systems or computer programs. Therefore, it will be sufficient to add such labelling in the metadata of the specific content, which, when downloaded or transferred from the AI system, will be added to the other metadata of the specific material. For texts generated within a chat used for communication with the AI system, such labelling would need to be generated at the end of the content. However, this is just one of the techniques that can be used to fulfil this obligation. Recital 133 AI Act also mentions watermarks, cryptographic methods

[4] Annex to Commission Implementing Regulation (EU) 2023/138 of 21 December 2022 laying down a list of specific high-value datasets and the arrangements for their publication and re-use, OJ L 19, 20.1.2023, pp. 43–75.

for proving the provenance and authenticity of content, logging methods, and fingerprints.

Additionally, the AI Act specifies that the provider may implement more than one technique depending on the needs, as long as all the requirements of Article 50(2) AI Act are met. Metadata may be the most useful, as it is one of the techniques that minimally interferes with the content being generated or modified while also appearing to be cheaper than implementing more complex cryptographic methods or fingerprints. Log creation seems to be an additional method, allowing for supplementary verification of content origin in the form of a record of the operations performed by the AI system (Gupta, 2020). Nonetheless, it is worth noting other techniques that may function depending on the AI system and the programming or visual decisions made by the provider of the given system.

Such a solution can be adapted and modified depending on the different types of content, as illustrated by the examples above, which is explicitly allowed by the AI Act. The provision states that effectiveness, interoperability, robustness, and reliability should be ensured to the extent that is technically feasible. When assessing compliance with this requirement, consideration is given to the specificities and limitations of various types of content, the costs of implementation, and the generally acknowledged state of the art, as may be reflected in relevant technical standards (Article 50(2) AI Act).

The characteristics of the solution are evident; however, it is worth paying attention to interoperability. This means that the solution for labelling materials as artificially generated or manipulated should function smoothly with other tools or services. Therefore, metadata is currently the best place to introduce such labelling, as it is structured for different types of files, allowing it to be read by both humans and various algorithms (Riley 2017, p. 4; Science Direct, n.d.).

2. Deployers' obligations

The obligations for deployers, although found within the same provision – Article 50(4) AI Act – should be treated separately because they concern two different categories of artificial content. The first category includes image, audio, or video content that can be classified as deepfakes. A separate obligation applies to textual content published with the purpose of informing the public on matters of public interest.

2.1. Image, audio and video content

Deployers must label visual and audio content classified as deepfakes as artificially generated or manipulated. Notably, this obligation is exempted only when the use is authorized by law to detect, prevent, investigate, or prosecute criminal offences (Article 50(4) AI Act). This means that even if only a portion of such material falls within the scope of this obligation, the content must still be appropriately labelled. This applies even when a human has reviewed and approved the material.

Such an obligation will require creating a relevant policy for using generative artificial intelligence within an organization. It will also be essential to require employees or collaborators to report the use of AI for generating or manipulating content to determine whether such materials need to be labelled. The function these materials serve is also irrelevant. As a result, not only must externally published content be appropriately labelled, but also content used internally. However, another issue regarding compliance verification is the ability of relevant authorities to identify when content remains unlabelled.

The deployer can choose how to present such labelling. It may take the form of a watermark or an appropriate entry in the metadata. The primary method will involve using AI system functionalities which providers can implement, as encouraged by Recital 133 the AI Act. This feature will also serve as an additional element promoting a given AI system.

The AI Act further specifies this obligation for content that forms part of an evidently artistic, creative, satirical, fictional, or otherwise analogous work or programme – terms understood here as follows: *artistic* meaning relating to art and skilfully made (example: classical music); *creative* meaning using original or unusual ideas (example: expressionist painting); *satirical* meaning humorously criticizing people or ideas for a political point (example: political parody); and *fictional* meaning imaginary (example: fantasy film; *Cambridge Dictionary*, n.d.-a, n.d.-b, n.d.-c, n.d.-d), with examples including classical music, expressionist painting, political parody, and fantasy film. In such a case, the transparency obligations set out in this paragraph are limited to disclosing the existence of such generated or manipulated content in an appropriate manner that does not hamper the display or enjoyment of the work (Article 50(4) AI Act).

It is essential to note the broad scope of content types this specification covers. These are not limited to works alone but include any other content that fits at least one of the above-mentioned adjectives. The term 'fictional' is particularly problematic, as it suggests that content should be labelled only if it is entirely unreal. However, this would conflict with the definition of deepfake discussed in Chapter 1 of this article.

Moreover, this specification of labelling obligations for artificial content pertains only to works, as it explicitly references concepts directly related to them, such as the display or enjoyment of the work. Given the above, this phrasing should be understood as an attempt to describe the elements that distinguish works from other types of content. This means that although terms other than 'work' are used to describe such content, in the end, the underlying aim is to illustrate the various forms that a work can take in practice. This interpretation aligns with the linguistic meaning of the words used in this part of the AI Act.

The Regulation unnecessarily complicates the issue in this regard and uses imprecise language. A more straightforward approach would have been to refer solely to the term 'work'. This would not be an extraordinary solution, as a similar approach was used, for example, in the Directive (EU) 2019/790 of

the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.[5] In this directive, a definition of 'work' was not introduced, despite the frequent use of the term, presumably on the assumption that it is well understood within the legal culture of the Member States. This assumption is not unfounded, given the accession of all Member States (WIPO, n.d.) to the Paris Act (24 July 1971) of the Berne Convention for the Protection of Literary and Artistic Works of 9 September 1886,[6] which is the foundation of modern copyright law.

There is also the question of whether, since only these types of content are subject to such clarification, the remaining content must nonetheless be labelled in a way that does not hamper the display or enjoyment of that content. A natural element of the obligation to label content is to apply the label so that it does not disrupt the ability to view or access it. This is not a result of specific legal rights but a functional necessity for such an obligation. Otherwise, the requirement would hinder the ability to engage with content created using AI systems, which would be a counterproductive outcome of introducing such a regulation.

2.2. Textual content

Deployers are also required to label text as having been artificially generated or manipulated if the AI system they use generates or manipulates text that is published with the aim of informing the public on matters of public interest (Article 50(4) AI Act). Public interest is an element that enhances the ability of all members of a community to pursue permissible goals. Its definition requires both substantive and normative grounds, as well as consideration of conflicting interests, and it cannot be derived from private, individual interests (Boot, 2024, pp. 114, 116–118). Such content includes textual materials informing the public about important issues from the perspective of society. Examples might include articles about elections, scientific achievements, state-related events, or significant sports or cultural events. Once again, this is a subjective category, which ideally should be addressed through recommendations issued by competent authorities, or for which the early court cases may provide interpretative guidance.

This obligation, as with image, audio, and video content, does not apply to cases where the use is authorized by law to detect, prevent, investigate, or prosecute criminal offences. However, this provision also includes an additional exception. This obligation shall not apply where the AI-generated content has undergone a human review or editorial control process and where a natu-

---

[5] Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, OJ L 130, 17.5.2019, pp. 92–125.

[6] Paris Act (24 July 1971) of the Berne Convention for the Protection of Literary and Artistic Works of September 9, 1886 (World Intellectual Property Organization [WIPO], TRT/BERNE/001).

ral or legal person holds editorial responsibility for publishing the content. If both elements are present – human review or editorial control and editorial responsibility for the publication – the text does not need to be labelled as generated or manipulated by an AI system.

It may be problematic to assess whether editorial responsibility extends to a text published by the entity concerned. Using systematic interpretation, one can refer to the definition of editorial responsibility contained in Article 1(1)(c) of Audiovisual Media Services Directive (AVMSD).[7] Thus, editorial responsibility, adapted to the AI Act, would involve exercising actual control over the publication through editorial decisions, primarily determining its place and time. Such actions result in the organization of content within a given space (Klafkowska-Waśniowska, 2016, p. 117). This interpretation is based on Article 1(1)(bb) AVMSD, as amended by Directive (EU) 2018/1808 of the European Parliament and of the Council of 14 November 2018 amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services[8]: 'a decision which is taken on a regular basis for the purpose of exercising editorial responsibility and linked to the day-to-day operation of the audiovisual media service.'

Additionally, editorial responsibility may involve making decisions on arranging AI-generated or manipulated textual content alongside other content, including that created solely by humans. At the same time, it is vital to uphold the conclusion from the AVMSD definition that such responsibility does not necessarily imply any legal liability. A challenge may arise from further clarifications of this definition provided by the legislation of individual Member States, as allowed by Recital 25 of AVMSD. In such situations, reference should be made exclusively to EU regulations and not to national laws. Otherwise, inconsistencies could arise in how textual content is labelled across different Member States, leading to reduced harmonization in this area of law.

3. Labelling presentation rules

Article 50(5) AI Act outlines how providers and deployers are to fulfil the obligations mentioned above, that is, what characteristics the labelling of artificial content regulated under Article 50(2), (4) AI Act should have. It should be noted that these requirements are intended to apply to natural persons. However, while there may be some debate over whether these conditions could

[7] Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of specific provisions laid down by law, regulation, or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), OJ L 95, 15.4.2010, pp. 1–24.

[8] Directive (EU) 2018/1808 of the European Parliament and of the Council of 14 November 2018 amending Directive 2010/13/EU on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) in view of changing market realities, OJ L 303, 28.11.2018, pp. 69–92.

be excluded for content transferred to another AI system or a person representing a legal entity, this distinction is of no practical consequence.

To simplify the implementation of this obligation, the assumption adopted here is that all audio, image, video, or text content will be labelled as such by AI systems and, therefore, appropriately labelled by entities using those systems. According to Recital 133 AI Act, it would be beneficial to implement the labelling mechanism outlined in Article 50(2) AI Act at the system or AI model level. While the Recital indicates that this would make it easier for lower-tier providers of the AI system to comply with the obligation, it would also facilitate compliance with Article 50(4) AI Act by deployers. They would receive appropriately labelled content, which could also serve as an additional marketing feature for the AI system or model to be leveraged by the provider.

At the outset, it should be emphasized that, in order to meet the AI Act's requirements regarding content labelling rules, it will be possible to use, as a supplementary approach, the practices and recommendations developed for labelling advertisements by entities providing online platform services under Article 26(1) of Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (DSA).[9] These requirements are different, as only the adjective 'clear' is repeated (Article 26(1) DSA).

Nevertheless, the function of these provisions is the same – to ensure appropriate transparency of certain information. Therefore, it is reasonable to conclude that examples of DSA implementation regarding Article 26(1) DSA can serve as inspiration for entities seeking to comply with the obligations of Article 50(2), (4) AI Act. However, unlike the DSA obligation (Grisse, 2023, p. 466), the AI Act requirements do not allow discretion in deciding whether content labelling is necessary – deepfakes must always be labelled in accordance with the AI Act's requirements.

The features that a label for artificial content must meet are clarity, distinctness, and accessibility (Article 50(5) AI Act). Clarity is achieved when the label directly and explicitly marks the content (Namysłowska & Jabłonowska, 2024, p. 574). The label should not be misleading or open to multiple interpretations by its recipients (Grisse, 2023, p. 466). This feature can be met by using unambiguous language indicating that the material is a deepfake or artificially generated or manipulated text. Ultimately, considering the differences in the characteristics of the content and the transparency and comprehensibility of the message, in practice, two separate labels should be used: one for image, audio, or video content, such as 'This is a deepfake' or 'This is artificially generated/manipulated content', and another for text which is published to inform the public on matters of public interest, for example, 'This is artificially generated/manipulated text.'

[9] Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act), OJ L 277, 27.10.2022, pp. 1–102.

However, there may be an argument that, due to the – problematic in my opinion – placement of these obligations in a single paragraph, one general label could be used. Although this is not the correct approach, it will undoubtedly be tempting, as it would simplify the interface for administrators managing labels in digital spaces. It would also allow continuation of current practices for labelling such content on social media (Meta, n.d.; O'Connor & Moxley, 2023). Distinctness refers to the formatting of the label. It should stand out from other labels or information accompanying the content. This can be compared to a general statement in the Article 26(1) DSA: 'the recipients of the service are able to identify".'

The above-mentioned distinction could be achieved by using a different text colour for the label or applying a special icon. However, the graphic label should distinguish itself from others and not be part of a collective tooltip or popover, which can be a problem in some web interfaces. Accessibility resulting from such signage should comply with applicable accessibility requirements (Article 50(5) AI Act). Examples of such requirements could include the provisions implementing Directive 2016/2102,[10] depending on the content of those provisions.

The AI Act also establishes the timing requirements for displaying the appropriate label. According to Article 50(5) AI Act, the label should be presented at the latest at the time of the first interaction or exposure. In practice, the label must be displayed as soon as the post, advertisement, video, music player, and similar content, appears. For example, such a label would be shown in real-time, depending on the nature of the content, such as a livestream. In this regard, experience from implementing Article 26(1) of the DSA, which stipulates that the service recipients should identify advertisements as such in real-time, may again be helpful. Also, similar to Article 26(1) DSA, the label should be adapted to the interface in which it is displayed to meet all compliance requirements under the AI Act (Grisse, 2023, p. 466; Franke, 2024, p. 448; Namysłowska & Jabłonowska, 2024, p. 575).

It is also worth noting Recital 134 AI Act. It specifies that the appropriate label should indicate that the content has an artificial origin. This requirement can be easily met using a verbal label stating 'artificially generated/manipulated', or with a graphic label using the abbreviation 'AI'.

Examples of verbal markings:

1. This is a deepfake – artificially generated/manipulated content.
2. This is artificially generated/manipulated content.
3. These graphics were manipulated using AI.
4. This text was created by AI and wasn't reviewed by a human.

[10] Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of websites and mobile applications of public sector bodies, OJ L 327, 2.12.2016, pp. 1–15.

Examples of graphic markings (functioning alongside verbal ones):

1. 

2. 

A final point concerns determining from whose perspective the compliance of the label with the requirements of Article 50(5) AI Act should be assessed. This assessment should be made from the point of view of an average content recipient. The obligations arising from Article 50 AI Act are intended to ensure the transparency of content generated or manipulated by AI systems to its recipients. Therefore, they aim to protect those recipients from manipulation, disinformation, and related issues (Recitals 120, 136 AI Act).

Furthermore, the assumption that the assessment of identification labels should consider the average representative of the target audience is a well-established approach in EU law, for example in Article 26(1) DSA (Grisse, 2023, pp. 466–467) and Article 6(1) UCPD where the term 'the average consumer' is used.

III. DIRECTIVE 2006/114 CONCERNING MISLEADING AND COMPARATIVE ADVERTISING

It is not only the AI Act within EU law that can impose the obligation to label artificial content or deepfakes; other EU legal provisions should also be analysed. Generative artificial intelligence is used to create advertising materials in the form of, for example, entire graphics or just parts of them. These graphics are not necessarily used solely as concepts for further work or as a basis for creating new graphics derived from them. In such cases, it is worth considering whether such advertisements – wholly or partially the result of AI – should be labelled as artificially generated or manipulated content under regulations concerning misleading advertising.

According to Directive 2006/114, misleading advertising should be effectively combated (Article 1, 5(1) Directive 2006/114). Advertising itself is defined in Article 2(a) Directive 2006/114. When defining advertising, attention is also paid to its persuasive aspect (Kerr & Richards, 2021, pp. 183, 189–190; Zawadzka, 2023, p. 39). However, in the context of this analysis, it is sufficient to understand advertising as a promotional message encouraging the purchase of a specific product: goods or services.

In the context of AI-generated content, the definition of misleading advertising from Article 2(b) Directive 2006/114 is significant. It refers to advertis-

ing that deceives or is likely to deceive its audience, which, due to its deceptive nature, is likely to influence their economic behaviour or harm a competitor.

Such advertising occurs when the message does not inform the recipient that the content was created using artificial intelligence where this is relevant to the buyer's evaluation of the product – whether goods or services. This would apply when AI is used to present features or functions of the product or to depict scenes of its use that are not real but artificially generated or manipulated, thereby deceiving or being likely to deceive the persons to whom the advertising is addressed. In such cases, the advertisement would present unreal elements that influence the buyer's decision to purchase or not purchase the product. This would, therefore, affect their economic behaviour due to the advertisement's deceptive nature. Of course, this does not necessarily have to relate to the product itself; it could also concern the activities of the entity in question.

Examples of advertising affecting economic behaviour:

1. The product's external appearance in the advertisement has been generated to present the design of a future device.

2. The audiovisual advertising material does not show the product in natural conditions but in a generated scenario, for example a generated conversation demonstrating how a service is provided.

3. A testimonial praising the product in the advertisement comes not from an actual customer, for example as part of a user opinion-based campaign, but it is an AI-generated response to a prompt asking for a product review.

4. Graphics meant to showcase the interface or performance of the product, for example camera photos, in the advertisement have been modified (e.g. enhanced) using artificial intelligence.

It is also worth noting that using artificial intelligence in specific ways can harm a competitor or would be likely to harm a competitor. For example AI-generated opinions about a competitor could be presented in so-called negative or comparative advertising.

In addition to the above cases, advertisers must be cautious when using AI to avoid potential hallucinations – plausible but fabricated information (Finn et al., 2024, p. 6; Mettrick, 2023–2024, p. 292), for example inaccurate references presented by ChatGPT (Anghelescu et al., 2023), or unintended modifications that the algorithm may introduce, for instance adding ports that the device does not have. However, this remains outside the scope of considerations regarding product labelling and is merely a general note for advertisers.

When assessing whether there is a need to label AI-generated content in the context of advertising, several factors are taken into account. These are detailed in Article 3 Directive 2006/114. They are based on a comprehensive analysis of the message, not only concerning the product – whether goods or services – but also the price, delivery conditions of the goods or services, as well as the advertiser and their characteristics.

The method of labelling advertising is not specified in the discussed directive. Therefore, it is necessary to consider the rules of good practice (Woźna-

-Burdziak, 2021, pp. 1020–1021). Based on this, the following are examples of labels for AI-generated content in the context of advertising:

1. 'Illustrative (or design) material generated by artificial intelligence. The material does not depict the actual product.'

2. 'The speaker is a chatbot/AI assistant, not a human. The material is intended to demonstrate an example of how contact is made during service provision.'

3. 'Work in progress, the material presents images retouched by artificial intelligence, run in a test environment, i.e., not on actual equipment.'

4. 'The opinion about the product was generated by artificial intelligence. This is not a human statement.'

IV. UNFAIR COMMERCIAL PRACTICES DIRECTIVE

Another legal act that requires analysis is one that also falls within the scope of competition or consumer protection law – the UCPD. The UCPD's purpose is to contribute to the proper functioning of the internal market and to achieve high consumer protection (Recital 50, CJEU, C-922/19[11]). This legal act predates Directive 2006/114, although it also covers misleading advertising (Recital 6 UCPD) and it is an element of complete harmonization at the EU level (Recital 67 CJEU, C-102/20[12]).

However, this directive focuses on the business-to-consumer relationship (Article 5(2) UCPD). In the context of labelling products, three areas of this directive should be analysed: the general clause of unfair commercial practice (Duivenvoorde, 2014, p. 14; Collins, 2005, p. 418) and its specific types that seem to be of greater importance in practice (van Boom et al., 2014, pp. 2–3) – misleading action and misleading omission. Aggressive commercial practice remains outside the scope of interest – this article does not analyse cases involving unlawful pressure as characterized in Article 8 UCPD.

The key definition in this context is business-to-consumer commercial practice (or commercial practices) which is described in Article 2(d) UCPD. The definitions of trader, product, and consumer are provided in Article 2(b), 2(c), and 2(a) UCPD, respectively. In the context of the use of artificial intelligence, such a practice would be the behaviour of a trader that involves the use of AI in the purchase process of a product (goods or services) by a consumer – from the moment of encouraging the purchase to the moment of delivery. The definitions of materially distorting the economic behaviour of consumers (Article 2(e) UCPD) and professional diligence (Article 2(h) UCPD) are also key in determining the occurrence of an unfair commercial practice (Article 5(2)(b) UCPD).

---

[11] Judgment of the Court of Justice of the European Union of 3 February 2021, C-922/19, ECLI:EU:C:2021:91.

[12] Judgment of the Court of Justice of the European Union of 25 November 2021, C 102/20, ECLI:EU:C:2021:954.

AI that leads to the above-mentioned distortion will be used to influence the consumer and their behaviour in the context of the purchase process, that is, the transaction. Professional diligence includes informing the consumer about the use of artificial intelligence. Consumers should be informed whether a human is responsible for a particular element of communication or the sales process or whether it is AI in order to be able to react appropriately to it (Recital 22, CJEU, C-371/20[13]). This is a reasonable approach, as it informs the consumer about the nature of their relationship with the trader. At the same time, the general principle of good faith in the trader's activities should lead to informing consumers about the use of artificially generated or manipulated materials.

In order to determine that AI-generated content must be labelled under the directive in question, it must be established that the commercial practice is unfair, meaning it is contrary to the requirements of professional diligence and materially distorts or is likely to materially distort the economic behaviour of the average consumer or the average member of the group. This distortion of economic behaviour should concern the specific product, not every possible action the consumer might take (Article 5(2) UCPD). These include actions where the trader provides false or misleading information that deceives the consumer, intending to persuade them to purchase the product (Manea, 2015, p. 294).

AI-generated content should be labelled whenever such information might influence the consumer's decision at any stage of the purchase process. This is particularly relevant for content in advertisements and product descriptions, meaning the examples mentioned in the previous section of this article can be applied here.

Additionally, it is crucial to differentiate between informational materials showing product elements created using artificial intelligence and those produced by regular computer programs or technical elements of the product, such as photos, text content, or interface elements with answers to questions. The key is that the consumer should be able to distinguish between content generated by different aspects of the product – whether goods or services – and make an informed decision about its purchase. The consumer should receive these types of information from the trader (Fayyad, 2012, p. 291).

The directive also points to specific circumstances that influence the analysis of the existence of unfair commercial practices. In this context, it is essential to focus on one particular social group – minors, that is, individuals under the age of 18 (Article 1 United Nations Convention on the Rights of the Child of 20 November 1989[14]; Article 2(f) Council Directive 2003/86/EC of 22 September 2003 on the right to family reunification[15]; Caglar, 2021, p. 20;

---

[13] Judgment of the Court of Justice of the European Union of 2 September 2021, C-371/20, ECLI:EU:C:2021:674.

[14] United Nations Convention on the Rights of the Child of November 20, 1989 (UNCRC).

[15] Council Directive 2003/86/EC of 22 September 2003 on the right to family reunification, OJ L 251, 3.10.2003, pp. 12–18.

Volosevici, 2019, p. 21). From this, two types of considerations can be drawn: one *de lege lata* and one *de lege ferenda*.

Regarding the current legal state, whenever the content is directed at minors, the trader should exercise greater diligence in labelling AI-generated content and label those creations that minors, unlike adults, may not easily distinguish from real ones. This applies to cases where a human has edited AI-generated content, and the information should be adapted depending on whether the edited content can still be considered AI-generated. This is because the mind of a minor is not yet trained to differentiate between such information.

In cases where content merely reaches minors but is not explicitly targeted at them, the level of professional diligence may be lower if the product is not aimed at minors. From the perspective of assessing the existence of an unfair commercial practice, this distinction may seem irrelevant at first glance. However, from the point of view of the principle of proportionality (Recital 6 UCPD), it is essential to differentiate between these two factual circumstances, as they involve different approaches by the trader. The trader aims to present specific information when the communication is targeted explicitly at minors. In contrast, when minors merely have access to this information, but it was not intended for them, the approach taken by the trader may differ.

Regarding *de lege ferenda*, I advocate an analysis of how minors perceive and differentiate artificial content from actual content and the impact of not informing minors whether the content is artificial or real. The next step should be to assess whether there is a need to introduce specific obligations regarding the labelling of AI-generated content aimed at minors or to specify further existing obligations, for instance, by formulating appropriate labels or expanding the range of elements that should be labelled.

At the same time, the trader's behaviour may consist of failing to label an AI-generated product by claiming that artificial intelligence was not used – misleading action, or omitting information about such use altogether – misleading omission.

Misleading action occurs when, concerning one of the elements listed in Article 6(1) UCPD, a commercial practice contains false information. In assessing this, all circumstances surrounding the presentation must be considered.

The essential aspect is whether the action or omission has misled or is likely to mislead the average consumer, and whether it could lead to them making a transactional decision they would not have taken otherwise (Article 6(1) UCPD). In such situations, the labelling of a deepfake will primarily relate to two areas: the existence of the product (Article 6(1)(a) UCPD) and the main characteristics of the product (Article 6(1)(b) UCPD). This will be the case when a trader indicates that artificial intelligence was not used in a product-related message, although in fact it was used. This could be significant in offering products or services where one of the selling points is the absence of AI involvement. One prediction about the future development of

this technology suggests that, in the future, items free from the influence of AI may become more valuable, prestigious, and particularly desirable, or may attain higher value as being created exclusively by humans or functioning solely with human involvement (Galletly, 2024; Pelc, 2023).

Examples of misleading action in the context of labelling deepfakes include:

1. Claiming that screenshots depict actual gameplay from a video game when, in fact, they are promotional graphics generated by AI.
2. Placing favourable opinions on product packaging labelled as consumer reviews when in reality these reviews were generated by AI.
3. Stating on the company's website that the result of the service was created by a human when, in fact, it was produced by a popular AI model.
4. Claiming that the tests mentioned to the consumer were prepared by independent experts when in fact they were the result of AI product analysis.

Misleading omission in the context of deepfakes occurs when information about AI-generated content used in communication about a product is not disclosed, and such information is necessary for the consumer to make an informed transactional decision – so-called material information (Fayyad, 2012, p. 304). The critical factor in this case is the consequence of causing, or the possibility of causing, the average consumer to make a transactional decision they would not have otherwise made (Article 7(1), (2) UCPD). Misleading omission will also be found if such information is provided in an unclear, unintelligible, ambiguous, or untimely manner (Article 7(2) UCPD).

Examples of misleading omission in the context of labelling deepfakes include:

1. Failing to inform that the created work or the outcome of a service was generated or manipulated by AI if the consumer could not have reasonably expected this based on the circumstances.
2. Informing the consumer that the result of the product's performance, the created work, or the service outcome was produced using new technology, a computer program, or an algorithm, without specifying that it involved AI, which could be crucial to the consumer, for example, due to the data they provide as part of the cooperation.
3. Adding a deepfake label after the consumer has signed a receipt of acceptance for the product.
4. Removing a label the AI system applies to the product advertised to the consumer.

V. CODES OF PRACTICE

In addition to hard law, it is worth paying attention to soft law, especially since the European Union plans to encourage and support the development of such documents in the context of deepfakes. Through the AI Office, efforts are

being made to mobilize other entities to create codes of conduct to effectively implement obligations, including labelling artificially generated or manipulated content (Article 50(7) AI Act).

I support this solution and hope that the AI Office and other entities will actively work towards creating and implementing such codes of conduct. This synergy, with the critical involvement of the most significant players in the artificial intelligence market, will help clarify the rules for labelling artificial content in a way that enables effective compliance. For example, it could establish rules for labelling content in specific digital spaces or for using solutions already implemented by providers.

At the same time, the codes will allow for a more precise definition of the obligation to appropriately label artistic content under Article 50(4) AI Act, ensuring it does not hamper the display or enjoyment of the work. Moreover, such a code would provide a labelling framework for deployers to use. The European Commission could approve these codes under Article 50(7) AI Act, which would further strengthen their standing.

VI. CONCLUSIONS

In conclusion, the AI Act undoubtedly plays a crucial role in ensuring the labelling of deepfakes. This regulation explicitly sets out the relevant obligation, which means that competent authorities do not need to analyse or consider whether the requirement applies based on existing general regulations. However, certain shortcomings can be identified in the provisions establishing this obligation:

1. The narrow definition of the term *deepfake*.
2. The need for recommendations or explanations to ensure a consistent understanding of the regulations.
3. The unfortunate phrasing of the obligation concerning the labelling of works.

Nevertheless, it remains a positive step toward ensuring the transparency of content published in the digital world, provided that an effective method – for example, AI-based verification tools – can be implemented to prevent improper practices involving the concealment of AI system usage in content creation (e.g. through metadata manipulation). The scope of entities subject to these obligations should also be assessed positively. Providers must fulfil their duties diligently by adding appropriate labels, which facilitates the implementation of these requirements.

On the other hand, limiting the entities responsible for labelling to deployers makes sense from the perspective of the actual functioning of such content. If every entity, regardless of its position in the chain of entities using content created with the use of AI systems, had to label the content, it could lead to inconsistencies or a lack of clarity due to overlapping labels, for instance the multiplicity of markings in a particular online space such as the redun-

dant labels on online stores or e-commerce platforms.[16] Such a situation could also result in additional actions and costs, such as those involved in verifying whether the content is artificially generated or manipulated every time.

The above does not change my initial assessment, which I have confirmed throughout this article, that the AI Act is not the only EU legal act requiring the labelling of artificial content. While Directive 2006/114 and the UCPD apply to specific situations – namely, in the context of competitive relationships between businesses or between businesses and consumers – they nevertheless cover a significant portion of content delivered to recipients, particularly in terms of ensuring transparency online in relation to elements affecting people's economic decisions.

The UCPD is a more general legal act in its content, allowing for the consideration of more factual scenarios, both in terms of misleading actions and misleading omissions, within which situations concerning the labelling of deepfakes can fall under one or the other type of unfair business-to-consumer commercial practice.

Directive 2006/114 is more specific, focusing on one area of business activity – advertising products. For this reason, its provisions are more detailed, making it easier to identify situations in which deepfakes should be labelled. When planning external communications using artificial content, businesses should undoubtedly pay attention to the material and personal scope of Directive 2006/114 and the definition and examples of misleading advertising.

The European Union and its Member States should continue with the current solutions. The European Commission, national governments, and relevant authorities should continuously monitor the labelling of deepfakes once the AI Act comes into effect.

At the same time, appropriate recommendations should be issued as soon as possible to harmonize the understanding and implementation of the regulations. Furthermore, all grassroots initiatives regarding labelling artificial content – whether in the form of codes of practice or other types of industry documents – should be supported and viewed positively.

Content generated or manipulated by artificial intelligence presents an excellent opportunity for developing content production and exploitation, as well as significant risks related to fraud and behaviour that are considered unethical. Education will always be essential regardless of the legislative approach toward deepfake labelling. This education should begin early, enabling young people vulnerable to manipulation (Debczyńska & Rollnik-Sadowska, 2021, p. 12; Sanecka, 2013, pp. 25–28), not just mature individuals with life experience, to learn how to distinguish human-generated content from that produced using artificial intelligence.

The presented analysis highlights a multi-level system of obligations regarding the labelling of deepfakes, which also encompasses general provisions governing online activities (such as the GDPR) and the terms of service of

[16] Compare the homepage of the TEMU platform and the sales offers for individual products presented within it, as well as the subpages dedicated to specific product offers.

online platforms. Such fragmentation presents an additional challenge for market entities, notably smaller businesses such as SMEs (e.g. startups), which already face the complex task of analysing numerous EU and national regulations to ensure the legal compliance of their operations. A unified regulatory framework dedicated explicitly to labelling such content should be established. This would enhance the likelihood of uniform and comprehensive adherence to these principles and would also be beneficial from an enforcement perspective. The development of the recommendations suggested above will encourage EU institutions to undertake further work on a dedicated deepfake labelling regime.

Author contributions / Indywidualny wkład autora (CRediT): **Dominik Gabor** – 100% (Conceptualization / Konceptualizacja; Investigation / Przeprowadzenie badań; Writing – original draft / Pisanie – pierwszy szkic; Writing – review & editing / Pisanie – recenzja i edycja).

Conflict of interest / Konflikt interesów: The author declares no conflict of interest. / Autor nie zgłosił konfliktu interesów.

Funding / Finansowanie: The author declares no institutional funding. / Autor oświadczył, że nie korzystał z finansowania instytucjonalnego.

The use of AI tools / Wykorzystanie narzędzi AI: The author declares no use of AI tools. / Autor oświadczył, że nie korzystał z narzędzi AI.

Data availability / Dostępność danych: Not applicable. / Nie dotyczy.

References / Bibliografia

Anghelescu, A., Ciobanu, I., Munteanu, C., Anghelescu, L. A. M., & Onose, G. (2023). ChatGPT: "To be or not to be" ... in academic research. The human mind's analytical rigor and capacity to discriminate between AI bots' truths and hallucinations. *Balneo and PRM Research Journal*, *14*(4), article 614. https://doi.org/10.12680/balneo.2023.614

Arslan, F. (2023). Deepfake technology: A criminological literature Review. *Sakarya University Journal of Law Faculty*, *11*(1), 701–720. https://doi.org/10.56701/shd.1293642

Bickert, M. (2024). Our approach to labeling AI-generated content and manipulated media. *Meta*. https://tinyurl.com/4wthfdx6

Böhm, R., Jörling, M., Reiter, L., & Fuchs, C. (2023). People devalue generative AI's competence but not its advice in addressing societal and personal challenges. *Communications Psychology*, *1*, 1–10. https://doi.org/10.1038/s44271-023-00032-x

Boot, E. R. (2024). The public interest: Clarifying a legal concept. *Ratio Juris*, *37*(2), 110–129. https://doi.org/10.1111/raju.12401

Caglar, C. (2021). Children's right to privacy and data protection: Does the article on conditions applicable to child's consent under the GDPR tackle the challenges of the digital era or create further confusion? *European Journal of Law and Technology*, *12*(2), 1–31.

Cambridge Dictionary. (n.d.-a). Artistic. Retrieved 18 January 2025, from https://tinyurl.com/yfftfdfj

Cambridge Dictionary. (n.d.-b). Creative. Retrieved 18 January 2025, from https://tinyurl.com/mry6a4cn8

Cambridge Dictionary. (n.d.-c). Fictional. Retrieved 18 January 2025, from https://tinyurl.com/mr3rufnr

Cambridge Dictionary. (n.d.-d). Satirical. Retrieved 18 January 2025, from https://tinyurl.com/4822vjd7

Chui, M., Hazan, E., Roberts, R., Singla, A., Smaje, K., Sukharevsky, A., Yee, L., & Zemmel, R. (2023). *The economic potential of generative AI: The next productivity frontier*. McKinsey & Company.

Collins, H. (2005). The unfair commercial practices directive. *European Review of Contract Law*, *1*(4), 417–441. https://doi.org/10.1515/ercl.2005.1.4.417

Cristofolini, C. (2024). Navigating the impact of AI systems in the workplace: strengths and loopholes of the EU AI Act from a labour perspective. *Italian Labour Law e-Journal*, *17*(1), 75–103. https://doi.org/10.6092/issn.1561-8048/19796

Debczyńska, P., & Rollnik-Sadowska, E. (2021). Manipulacja i perswazja w reklamie skierowanej do dzieci i młodzieży [Manipulation and persuasion in advertising addressed to children and teenagers]. *Akademia Zarządzania*, *5*(2), 8–31. https://open.icm.edu.pl/handle/123456789/20489

Doss, C., Mondschein, J., Shu, D., Wolfson, T., Kopecky, D., Fitton-Kane, V. A., Bush, L., & Tucker, C. (2023). Deepfakes and scientific knowledge dissemination. *Scientific Reports*, *13*, 1–12. https://doi.org/10.1038/s41598-023-39944-3

Duffourc, M. N., Gerke, S., & Kollnig, K. (2024). Privacy of personal data in the generative AI data lifecycle. *NYU Journal of Intellectual Property and Entertainment Law*, *13*(2), 220–268. http://dx.doi.org/10.2139/ssrn.4899219

Duivenvoorde, B. B. (2014). *The consumer benchmarks in the Unfair Commercial Practices Directive* [Doctoral dissertation, University of Amsterdam]. UvA-DARE (Digital Academic Repository). https://tinyurl.com/ysvwyzvu

European Commission. (2025). *AI Pact*. https://tinyurl.com/3vxxr8d2

Fayyad, M. (2012). Misleading advertising practices in consumer transactions: Can Arab lawmakers gain an advantage from European insight? *Arab Law Quarterly*, *26*(3), 287–311. https://doi.org/10.1163/15730255-12341234

FBI. (2012, 2 April). *The grandparent scam*. Retrieved 18 September 2024, from https://tinyurl.com/4eawnjbr

Finn, P., Bell, L. C., Tatum, A., & Leicht, C. V. (2024). Assessing ChatGPT as a tool for research on US state and territory politics. *Political Studies Review*, OnlineFirst. https://tinyurl.com/4k4wpvmd

Franke, M. (2024). Komentarz do art. 26 [Commentary on Article 26]. In M. Gumularz (Ed.), *Akt o usługach cyfrowych. Komentarz* (pp. 442–463). Wolters Kluwer.

Galletly, S. (n.d.). *The value of human skills in a world of AI*. EXIN & Artificial Intelligence Skills Alliance. Retrieved 18 January 2025, from https://tinyurl.com/5n7jfje6

García-Peñalvo, F. J., & Vázquez-Ingelmo, A. (2023). What do we mean by GenAI? A systematic mapping of the evolution, trends, and techniques involved in generative AI. *International Journal of Interactive Multimedia and Artificial Intelligence*, *8*(4), 7–16. https://doi.org/10.9781/ijimai.2023.07.006

Geiger, C. (2024). Elaborating a human rights-friendly copyright framework for generative AI. *International Review of Intellectual Property and Competition Law*, *55*, 1129–1165. https://doi.org/10.1007/s40319-024-01481-5

Grisse, K. (2023). Commentary on Article 26. In F. Hofmann & B. Raue (Eds.), *Digital Services Act: DSA. Gesetz über digitale Dienste* (pp. 456–475). Nomos.

Jang, S., Lee, H., Kim, Y., Lee, D., Shin, J., & Nam, J. (2024). When, what, and how should generative artificial intelligence explain to users? *Telematics and Informatics*, *93*, Article 102175. https://doi.org/10.1016/j.tele.2024.102175

Kerr, G., & Richards, J. (2021). Redefining advertising in research and practice. *International Journal of Advertising*, *40*(2), 175–198. https://doi.org/10.1080/02650487.2020.1769407

Klafkowska-Waśniowska, K. (2016). *Swobodny przepływ audiowizualnych usług medialnych na żądanie w Unii Europejskiej* [Free movement of on-demand audiovisual media services in the European Union]. Wolters Kluwer.

Lin, J.-D., Han, Y.-H., Huang, P.-H., Tan, J., Chen, J.-C., Tanveer, M., & Hua, K.-L. (2023). DE-FAEK: Domain Effective Fast Adaptive Network for Face Anti-Spoofing. *Neural Networks*, *161*, 83–84. https://doi.org/10.1016/j.neunet.2023.01.018

Manea, L. (2015). The impact of the European legislation on advertising strategies in the field of food products. *Revista Economică*, *67*(Supplement), 285–297.

Meta. (n.d.). How to identify AI content on Meta products. Retrieved 18 January 2025, from https://tinyurl.com/rmvufjmr

Mettrick, G. (2023–2024). The AI handbook for financial services leaders: Tips and tactics for mastering AI in banking and finance. *Journal of Securities Operations & Custody*, *16*(3), 286–296. https://doi.org/10.69554/SESY2749

Milmo, D. (2023, 6 December). Google says new AI model Gemini outperforms ChatGPT in most tests. *The Guardian*. https://tinyurl.com/5y8fmt35

Nalbant, K. G., Aydin, S., & Uyanik, Ş. (2023). Generative adversarial network and digital art interactions with metaverse marketing. *Trakya Üniversitesi Sosyal Bilimler Dergisi*, *25*(2), 375–396. https://doi.org/10.26468/trakyasobed.1301771

Namysłowska, M., & Jabłonowska, A. (2024). Komentarz do art. 26 [Commentary on Article 26]. In D. Lubasz & M. Namysłowska (Eds.), *Akt o usługach cyfrowych. Komentarz* (pp. 563–582). Wolters Kluwer.

O'Connor, J. F., & Moxley, E. (2023, 14 November). Our approach to responsible AI innovation. [YouTube Official Blog]. YouTube. https://tinyurl.com/25jw8yhd

Park, J., Park, L. H., Ahn, H. E., & Kwon, T. (2024). Coexistence of deepfake defenses: Addressing the poisoning challenge. *IEEE Access*, *12*, 11674–11687. https://doi.org/10.1109/ACCESS.2024.3353785

Pelc, K. (2023, 16 March). AI will make human art more valuable. *Wired*. https://tinyurl.com/mzs7488x

Riley, J. (2017). *Understanding metadata: What is metadata, and what is it for?* National Information Standards Organization (USA).

Sanecka, E. (2013). Manipulacja w reklamie telewizyjnej skierowanej do dzieci i młodzieży [Manipulation of the television advertising aimed at children and young people]. *Kultura – Media – Teologia*, *13*, 19–36.

Science Direct. (n.d.). *Metadata System*. Retrieved 23 September 2024, from https://tinyurl.com/bdhxyez2

TikTok. (n.d.). About AI-generated content. Retrieved 18 September 2024, from https://tinyurl.com/ymznxbj2

Truby, J., & Brown, R. (2021). Human digital thought clones: The Holy Grail of artificial intelligence for big data. *Information & Communications Technology Law*, *30*(2), 140–168. https://doi.org/10.1080/13600834.2020.1850174

van Boom, W., Garde, A., & Akseli, O. (2014). Introduction. In W. van Boom, A. Garde & O. Akseli (Eds.), *The European Unfair Commercial Practices Directive: Impact, enforcement strategies and national legal systems* (pp. 1–18). Ashgate.

Volosevici, D. (2019). Child protection under GDPR. *Jus et Civitas: A Journal of Social and Legal Studies*, *70*(2), 17–22.

World Bank Group. (2024). Polska przegląd [Poland review]. https://tinyurl.com/ym7zv42b

World Intellectual Property Organization (WIPO). (n.d.). *WIPO-Administered Treaties*. Retrieved 24 September 2024, from https://tinyurl.com/38s4j8a9

Woźna-Burdziak, W. (2021). A practical analysis of comparative advertising. *European Research Studies Journal*, *24*(4B), 1019–1028. https://doi.org/10.35808/ersj/2850

Zawadzka, J. (2023). Surreptitious advertising as an act of unfair competition. *Economics of the 21st Century*, *26*, 38–48. https://doi.org/10.15611/e21.2023.04