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THE INTERSECTION OF ARTIFICIAL INTELLIGENCE AND COPYRIGHT LAW: CHALLENGES AND INNOVATIONS

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SUMMARY

Artificial intelligence (AI) has recently become an indispensable aspect of contemporary life, impacting a diverse range of individuals from students to practicing lawyers. The scope of AI applications is extensive, encompassing tasks such as idea generation, research, image creation, automation of daily processes, and enhancing human functionality. While these innovative technologies offer substantial benefits, they also pose significant challenges that need to be addressed. The legislature, executive, and judiciary all play crucial roles in managing the risks and issues associated with AI. Effective regulation is essential to tackle these problems and ensure the safe integration of AI into society.

Key challenges associated with AI include civil liability, deep fakes, data protection, ethics, transparency, and intellectual property rights. This article aims to identify the primary challenges that legal systems face due to the rapid development and deployment of AI, with a particular focus on copyright and transparency issues. Transparency involves the need for clear and understandable AI processes, while copyright concerns relate to the rights associated with AI training and AI generated content.

The article also examines current legislation and case law pertaining to AI from various jurisdictions, including the European Union, the United States, the United Kingdom, and China. By analysing these legal frameworks, the article provides a comparative perspective on how different legal systems are adapting to AI. Through this analysis, the article aims to contribute to the ongoing discussion on effectively regulating AI and, if necessary, offers general recommendations for improving AI regulation in Lithuania.

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KEY WORDS

Artificial Intelligence, Generative Artificial Intelligence, Law, Copyright, Case Law.

INTRODUCTION

Some say that the term of artificial intelligence was invented in 1955 when John McCarthy (who is often recognized as the father of AI), Marvin Lee Minsky, Nathaniel Rochester and Claude Elwood Shannon proposed a project on artificial intelligence[2], some say it was coined in 1956, at the Dartmouth Conference[3] – the first one on the subject. Either way, J. McCarthy described AI as "the science and engineering of making intelligent machines"[4]. Although there is currently no global consensus on a specific definition of AI, the prevailing doctrine has established more realistic expectations regarding its capabilities. Previously, AI was often envisioned as possessing superintelligence, surpassing human abilities[5]. However, contemporary perspectives have shifted towards understanding AI as a rational decision-making machine[6], emphasizing its role in enhancing and automating decision processes rather than exceeding human intelligence.

Efforts to define AI within existing legal frameworks have been made across various jurisdictions. In Lithuania, AI is defined as "computer systems which are capable of performing tasks that require human intelligence. These systems are trained using large amounts of data"[7]. Notably, this definition for unknown reasons diverges from an earlier proposal (that has faced criticism[8]), which aimed to characterize AI as systems demonstrating intelligent and smart behaviour by analysing their environment and making relatively autonomous decisions to achieve a goal[9]. Despite this deviation, the current definition underscores the capacity of AI systems to mimic human cognitive functions through extensive data training. In the United States, AI is described as "a machine-based system that can, for a given set of human-defined objectives, make

[2] J. McCarthy, "A proposal for the Dartmouth summer research project on artificial intelligence", accessed May 19, 2024 // http://jmc.stanford.edu/articles/dartmouth/dartmouth.pdf.

[3] R. Anyoha, "The History of Artificial Intelligence, accessed May 19, 2024, https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/.

[4] J. McCarthy, "What is artificial intelligence?", accessed May 19, 2024, http://jmc.stanford.edu/articles/whatisai/whatisai.pdf.

[5] S. Russel and P. Norvig, "Artificial Intelligence: A Modern Approach", Fourth Edition, Global Edition. Pearson Education Limited, 2022, p. 19.

[6] P. McCorduck, "Machines Who Think", Natick: A. K. Peters, 2004, p. 433.

[7] Order of the Ombudsperson for Academic Ethics and Procedures of the Republic of Lithuania No V-14 of April 29, 2024 on the approval of the guidelines for the ethical use of artificial intelligence in the process of science and studies, sub-point 4.1.

[8] N. Gaubienė, "Lithuanian artificial intelligence strategy: is artificial intelligence understood correctly?", TeisėPro, 2019.

[9] Lithuanian artificial intelligence strategy, a Vision of the Future, accessed June 29, 2024 // https://eimin.lrv.lt/media/viesa/saugykla/2024/3/FmyQZ_9_OSU.pdf.

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predictions, recommendations, or decisions influencing real or virtual environments”[10]. This definition highlights the operational aspect of AI, focusing on the capacity to interact with and influence their surroundings based on human-defined goals. Canada’s definition of AI is “information technology that performs tasks that would ordinarily require biological brainpower to accomplish, such as making sense of spoken language, learning behaviors, or solving problems”[11]. It underscores the diverse functionalities of AI, particularly its ability to replicate tasks traditionally associated with human cognition. Although these definitions are articulated differently, they share a common essence: AI is recognised as technology that simulates human intellectual capabilities. Each jurisdiction’s definition reflects an understanding of AI as a system designed to perform tasks that typically necessitate human intelligence, thus capturing the core concept of AI as an emulation of human mental abilities. Such renowned dictionaries as Marriam-Webster[12], Cambridge[13] or the Collins[14], provide various definitions of AI. Despite slight variations, these dictionary definitions consistently convey that AI is either a mechanism or technology designed to mimic human mental abilities or the science that studies such technologies and mechanisms.

For the purposes of this article, defining generative artificial intelligence (GAI) is crucial. GAI is a subset of AI. In Lithuania, it is described as a “technology that can create new content (e.g., images or text) based on a query or other specified criteria”[15]. In the United States, GAI is defined as a “class of AI models that emulate the structure and characteristics of input data in order to generate derived synthetic content. This can include images, videos, audio, text, and other digital content”[16].

As AI continues to advance at an unprecedented rate[17], its applications are expanding into various domains, including research, image generation, autonomous vehicles, and the medical field. This broad spectrum of AI integration has consequently raised numerous legal concerns, particularly in areas such as copyright, civil liability, and transparency. This article will focus on exploring the legal implications related to copyright, recent developments in the regulation of AI and pertinent case law. Addressing these legal concerns is essential for the effective management of the complexities introduced by AI advancements, especially since global regulation of AI is still in its early stages and lacks concrete answers.

The objective of this article is to examine the regulatory gap regarding AI in the Republic of Lithuania. It aims to assess whether addressing copyright issues without specific national regulatory oversight is feasible and to determine whether regulatory changes are necessary.

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[10] Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, Sec. 3, point (b).

[11] Appendix A of the Directive on Automated Decision-Making, 2019.

[12] Marriam-Webster dictionary, accessed May 19, 2024 // https://www.merriam-webster.com/dictionary/artificial%20intelligence.

[13] Cambridge dictionary, accessed May 19, 2024 // https://dictionary.cambridge.org/dictionary/english/artificial-intelligence.

[14] Collins dictionary, accessed May 19, 2024 // https://www.collinsdictionary.com/dictionary/english/artificial-intelligence.

[15] *Supra* note 7, sub-point 4.2.

[16] *Supra* note 10, Sec. 3, point (p).

[17] Y. Goyal, “Towards Transparent AI Systems: Interpreting Visual Question Answering Models”, https://arxiv.org/pdf/1608.08974.

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To determine whether specific regulation (or amendments of the existing legal frameworks) for AI in the Republic of Lithuania is necessary, the following tasks have been established:

1. conduct a review of the current legal landscape, pertinent case law, and legal doctrine regarding AI training;
2. conduct an analysis of the existing legal framework, case law, and legal doctrine regarding the copyrightability of AI generated content;
3. outline and assess the potential applicability of effective practices for dealing with copyright issues based on this analysis.

Regulations, case law and works of scholars on AI, speaking on copyright issues, are the object of this article.

In this article, linguistic analysis to clarify the term "AI" was employed to determine what exactly AI is; as well as a comparative method to compare the European Union (EU) and the United States of America (USA) copyright regulations; USA, Czech and Chinese case law, when it comes to the authorship of AI generated content. These specific countries have been chosen for the following reasons: USA is known for their passion for innovations, EU – for their strict approach towards regulation and security of human rights, China – as one of the leaders in AI development and Czechia as the first country to have a ruling directly addressing the issue of copyrightability of an AI generated work in the European Union.

This article is structured into two primary sections. The first section delineates the challenges confronting legal systems due to the swift evolution and integration of artificial intelligence, with a particular focus on copyright issues. The second section compares case law from various countries, including the United States, the Czech Republic, and the People's Republic of China.

Key sources for this article include legal doctrine on the subject, relevant regulations, and case law.

CHALLENGES OF ARTIFICIAL INTELLIGENCE

Transparency

Opponents of regulation argue that it hinders innovation and the advancement of new technologies, imposes significant costs on small and medium-sized enterprises (SMEs), and risks overregulating a rapidly evolving field. Conversely, some advocate for the regulation of AI. Among them is Elon Musk, who, in October 2014, at the Massachusetts Institute of Technology Aeronautics and Astronautics department's Centennial Symposium, issued the famous cautionary statement regarding AI. Musk compared AI to a demon that must be tamed through regulatory oversight[18]. His warning can indeed be justified (especially when numerous countries have started to implement regulations of some kind). A legal framework focused on transparency could significantly contribute to addressing issues related to copyright infringement and other similar

[18] Matt McFarland, "With artificial intelligence we are summoning the demon", accessed May 19, 2024 // https://www.washingtonpost.com/news/innovations/wp/2014/10/24/elon-musk-with-artificial-intelligence-we-are-summoning-the-demon/.

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concerns by providing clarity and information about the outputs generated by AI[19]. Could a requirement be imposed mandating the implementation of a system enabling users to analyse the process and rationale behind generated outputs (commonly known as a white box model or "opening the black box"[20]), including providing intermediate steps leading to final outputs? Although not explicitly stipulated, regulations like the EU AI Act[21] appear to uphold high transparency standards with which companies must comply.

The dangers of AI can be explained by a relatively simple example. If asked about what comes to mind upon hearing "AI", many individuals, particularly those who aren't regularly engaged with AI, might mention ChatGPT, as it stands out as one of the most recognizable instances of AI. That is exactly why it makes a great example to visualize the dangers of AI. The said chatbot uses existing and already created content to generate its answers with little to no explanation and transparency. This is the so-called black box model[22], where an answer is generated based on your input by processing large amounts of data[23] and providing you with an answer without any guidelines as to how the chatbot came out with a particular answer[24]. Real world examples demonstrate that lack of transparency in generative AI is a prerequisite for other troubles. There was a case filed in USA on February 22, 2022[25], where two New York lawyers evaded their duties by submitting fictitious judicial opinions, filled with fabricated quotes and citations generated by an AI chatbot ChatGPT. Even when judicial orders cast doubt on their legitimacy, the lawyers insisted that these counterfeit cases were real. Ultimately what happened was that the lawyers got fined 5,000 USD. Some of the main implications from this case are as follows: 1) neither ChatGPT, nor any other generative AI shall be unconditionally trusted; 2) even if there are no clear regulations regarding every aspect of AI, it does not exempt from responsibility to exercise due diligence. One shall take measures and make sure that everything is compatible with the principles of law. This is an important one, because even if there is no clear regulation, it incentivizes one to be cautious; 3) lack of regulation may be a setback for the usage of AI and it's potential, as the usage of it may potentially cause damage to users themselves.

[19] D. Lehr and P. Ohm, "Playing with the Data: What Legal Scholars Should Learn About Machine Learning", 51 U.C. DAVIS L. RFV. 653, 655, 2017, p. 657.

[20] A. J. Wulf, and O. Seizov, "Artificial Intelligence and Transparency. A Blueprint for Improving the Regulation of AI Applications in the EU", European Business Law Review, 31, 2020 (4), p. 619-622.

[21] Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139, (EU) 2019/2144, and Directives 2014/90/EU, (EU) 2016/797, (EU) 2020/1828.

[22] It might not be the traditional black box model *per se*, as it provides its users with the ability to interact with it and try to get more information on the output. Also, a remark to its users that "ChatGPT can make mistakes. Consider checking important information" suggests a little bit more transparency. *See* Danielle Keats Citron, Frank Pasquale, "The Scored Society: Due Process for Automated Predictions", vol. 89 WASH. L. REV. 1, 2014, p. 6.

[23] David W. Opderbeck, "Copyright in AI Training Data: A Human-Centered Approach", Oklahoma Law Review, Vol. 76, 2024 (Forthcoming), p. 5.

[24] Vikas Hassija, "Interpreting Black-Box Models: A Review on Explainable Artificial Intelligence", Cognitive Computation, Vol. 16 (2024): 45-74 // DOI: 10.1007/s12559-023-10179-8.

[25] Mata v. Avianca, Inc., United States District Court Southern District of New York (2023, no. 1:22-cv-01461).

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Copyright

Concerns regarding copyright are recognized as a prominent issue arising from AI[26]; yet they remain insufficiently addressed[27]. For example, a natural question arises whether the use of copyrighted content to train language learning models falls under the fair use doctrine, particularly when these models are used for profit. Another significant question is who should be considered the author of AI generated content. This article will address two key issues: 1) the use of copyright-protected works for training language learning models; and 2) the authorship of AI generated content.

Regarding the first issue, two clashing opinions arise regarding whether the use of copyrighted content for training AI infringes copyright protection. Some argue that "there is no doubt that a reproduction is made of AI training data until the machine incorporates that data into its algorithmic functions"[28] suggesting that this process does not constitute copyright infringement. On the other hand, authors tend to hold a different view, asserting that they are neither asked for permission, credited, nor compensated, despite their works being used[29]. However, the latter opinion appears to have been overshadowed by the former.

The first opinion is mainly supported by the fair use doctrine, which is a phenomenon of the United States. This doctrine is established under Title 17 of the United States Code, specifically Section 107[30]. In Seltzer v. Green Day, Inc., 725 F.3d 1170 (9th Cir. 2013), the United States Court of Appeals for the Ninth Circuit ruled that the fair use doctrine allows courts to apply flexibility to copyright law to prevent it from suppressing creativity, its primary purpose. The court held that four criteria must be considered when applying the fair use doctrine, as codified in 17 U.S.C Section 107: 1) the purpose and character of the use, including whether such use is of a commercial nature or for non-profit educational purposes; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and 4) the effect of the use on the potential market for or value of the copyrighted work.

Since copyright protection serves a dual purpose – to incentivize creative activity and to advance public cultural, social, and economic welfare – scholars often lean towards the belief that using copyright-protected data to train language learning models falls within the boundaries of fair use, even if used for commercial purposes[31], as it is a prerequisite for the flourishing of AI technology. This perspective also appears in *droit d'auteur* countries where the fair use doctrine does not exist, as these propositions are regarded as axiomatic[32]. EU copyright law, while lacking

[26] Sag Matthew, "Fairness and Fair Use in Generative AI", Fordham Law Review, Vol. 92 (2024): 1887-1921 // SSRN: https://ssrn.com/abstract=4654875.

[27] R. Birštonas, *et al*., "Commentary on the Law on Copyright and Related Rights of the Republic of Lithuania", Vilniaus universiteto leidykla, 2024, p. 97.

[28] *Supra* note 23, p. 3.

[29] Numerous authors have initiated lawsuits against major entities in the generative AI sector, such as Midjourney and Google. *See* https://imagegeneratorlitigation.com/.

[30] Copyright Law of the United States under Title 17 of the United States Code, Sec. 107.

[31] Jenny Quang, "Does Training AI Violate Copyright Law?" (2021) 36(4) Berkeley Technology Law Journal 1407, p. 1407-1409.

[32] Kiškis, M., "Doctrines of intellectual property rights", Law, vol. 73. Vilnius, 2009, p. 24-37.

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a fair use doctrine[33], imposes restrictions on the exclusive rights of copyright holders. It permits the unauthorized use of copyrighted works only in the public interest, as outlined in Article 5 of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society[34]. These purposes include the advancement of science, education, and culture. Notably, the EU explicitly permits text and data mining unless the rights holder expressly reserves their rights, as stipulated in Article 4 of 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[35]. This directive has already been transposed into Lithuanian regulation as well[36].

Although this article will not delve deeply into the main theories of intellectual property, it is worth mentioning that these theories influence the copyrightability of AI generated content and are the cornerstones of intellectual property. The theories are as follows: labour, personality, utilitarianism, and epistemological[37]. While some, like labour and utilitarianism, are more rooted in countries like the USA, others, such as personality theory, are more prevalent in the EU[38]. All of these theories seem to influence current positions on this topic. There are two diverging opinions: 1) AI generated content should not be copyright protected[39]; and 2) AI generated content should be copyright protected[40]. The latter opinion appears to be the dominant one and will thus be discussed further in this article.

When it comes to the issue of authorship of AI generated outputs, there is no specific regulation for AI. The concept of authorship varies depending on the jurisdiction. For instance, in continental law countries, the prevailing stance is that only a natural person can be an author because it is a distinctive human trait to think, learn, and evaluate[41] – this applies to Lithuania as well[42]. Conversely, in the common law tradition, it is sometimes accepted that a legal person can be an author[43]. To grant AI the status of an author, the law would need to recognize the legal

[33] Paivi Hutukka, “Copyright Law in the European Union, the United States and China”. International Review of Intellectual Property and Competition Law, Vol. 54 (2023): 1044-1080 // DOI: 10.1007/s40319-023-01357-0, p. 1054.

[34] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSoc Directive), Article 5(3).

[35] 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.

[36] The Law on Copyright and Related Rights of the Republic of Lithuania, Official Gazette, 2003, No. 28-1125.

[37] *Supra* note 32.

[38] William Fisher, “Theories of intellectual property” accessed May 19, 2024 // https://cyber.harvard.edu/people/tfisher/iptheory.pdf, p. 5-6.

[39] Vézina, B., Peters, D., “Why We’re Advocating for a Cautious Approach to Copyright and Artificial Intelligence”, Creative Commons, 2020, accessed June 30, 2024 // https://creativecommons.org/2020/02/20/cautious-approach-to-copyright-and-artificial-intelligence/.

[40] Faye F. Wang, “Copyright Protection for AI generated Works: Solutions to Further Challenges from Generative AI” (2023) 5:1 Amicus Curiae 88, p. 92.

[41] Mizaras, V., “Copyright: Vol. 1”, Vilnius: Justitia, 2008, p. 258.

[42] *Supra* note 36, Art. 6 (1).

[43] Birštonas, R. et al., “Intellectual Property Law: textbook”, Vilnius: Registrų centras, 2010, p. 111.

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personality of AI[44]. Some argue that AIs should be given the status of legal persons[45], which would be necessary if AI at some point became conscious[46] (as of now, AI is certainly not[47]). Excluding the consciousness aspect, it seems unnecessary to provide AI with such status, as there are already legal and natural persons who attribute to AI[48].

Furthermore, both opinions regarding granting AI the status of legal personality appear supported, albeit with less favour towards AI receiving such recognition. Several countries have explicitly expressed their stances on this matter. China, for instance, has refused to recognize AI as a legal person in court[49]. Similarly, the EU has stated that "it would not be appropriate to seek to impart legal personality to AI technologies"[50] as well as "under European (and US) law AI cannot own copyright, as it cannot be recognised as an author and does not have the legal personality which is a pre-requisite for owning (intangible) assets"[51].

In the United States, there is a strong stance on this topic: US Copyright Office, for example, holds an opinion that an AI generated image cannot be copyright protected: "[t]he U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being"[52]; "the Office concludes that the images generated by Midjourney [author – an AI] contained within the Work are not original works of authorship protected by copyright"[53]. The same position is reflected in case law of USA. For instance, in Thaler v. Perlmutter[54], the court held that although "copyright is designed to adapt with the times", the underlying principle of this adaptability remains rooted in the consistent understanding that human creativity is the *sine qua non* at the core of copyrightability. This principle holds true even as human creativity is expressed through new tools or into new media and hence "human authorship is a bedrock requirement of copyright".

Although not directly related to copyright, it is noteworthy that in Australia, a court ruled that "an inventor as recognized under the Act can be an artificial intelligence system or device"[55]. This decision suggests a level of recognition for AI as entities, although it does not confer them any rights.

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[44] *Supra* note 40, p. 90.

[45] Kurki, Visa A J, "The Legal Personhood of Artificial Intelligences", in *A Theory of Legal Personhood*, Oxford Scholarship Online, 2019, p. 175-189.

[46] Papakonstantinou, V & P De Hert, "Refusing to Award Legal Personality to AI: Why the European Parliament Got It Wrong", European Law Blog, 2020.

[47] *Supra* note 40, p. 90-91.

[48] *Supra* note 40, p. 91.

[49] Shenzhen Tencent Computer System v Shanghai Yingxun Technology, 2019.

[50] European Parliament, "Report on Intellectual Property Rights for the Development of Artificial Intelligence Technologies" (2020/2015(INI)), Committee on Legal Affairs, Rapporteur: Stéphane Séjourné, 2 October 2020, para. 14.

[51] European Commission, "IP Helpdesk: Intellectual Property in ChatGPT", 2023.

[52] U.S. Copyright Office, "Copyrightable Authorship: What Can Be Registered", Compendium: Chapter 300, 2021, p. 7, accessed June 30, 2024 // https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf.

[53] United States Copyright Office, accessed May 19, 2024 // https://www.copyright.gov/docs/zarya-of-the-dawn.pdf.

[54] Thaler v. Perlmutter, United States District Court for the District of Columbia (2023, no. 1:22-cv-01564-BAH).

[55] Thaler v Commissioner of Patents [2021] FCA 879, para. 226.

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It is also significant to mention that in the United Kingdom, the Copyright, Designs and Patents Act 1988 already recognizes computer-generated works, with the author being "the person by whom the arrangements necessary for the creation of the work are undertaken"[56]. Similar provisions are established in other countries as well, such as New Zealand[57], India[58], and South Africa[59]. The author can only speculate on how these would work in practice, as this issue has received very little attention in English courts[60], for example, in Nova Productions Ltd v Mazooma Games Ltd[61].

At present, it appears that AI generated outputs can be protected by copyright to the extent that they result from human intellectual and creative intervention[62], assuming the outputs comply with the requirements for works to be copyright protected – namely, originality and tangibility[63]. In such cases, the AI primarily serves as a tool in their creation. According to the policies of OpenAI[64] and Midjourney[65], it is likely that the user of the AI would be considered the author. This is because neither OpenAI nor Midjourney claim ownership of the content generated by their AI systems, presenting themselves as tools rather than entities with legal personality. Conversely, works created without sufficient human input shall not be considered subject to copyright and cannot be protected accordingly.

INNOVATIONS IN THE LEGAL FIELD

Case law

Regarding innovations in copyright in the context of AI, recently there have been a few relevant cases. In February 2024, the Guangzhou Internet Court in China issued a noteworthy judgment as a court of first instance in case (2024) Yue 0192 Min Chu No. 113[66]. The dispute arose between Shanghai Character License Administrative Co., Ltd. an exclusive license holder to the Ultraman series' works in China and the defendant, who was a text-to-image AI generated content provider. The plaintiff discovered that the defendant offered text-picture AI generating services. Upon inputting prompts containing or related to Ultraman, the plaintiff observed that

[56] Copyright, Designs and Patents Act 1988 (UK) s 9(3).
[57] Copyright Act 1994 s 5(2)(a).
[58] Copyright Act 1957 (2)(d)(vi).
[59] Copyright Act 1978 s1(1)(h).
[60] Bond, T., Blair, R., "Artificial Intelligence & copyright: Section 9(3) or authorship without an author", Journal of Intellectual Property Law & Practice, Vol. 14, Issue 6, 2019, p. 423.
[61] LawCite, Nova Productions Ltd v Mazooma Games Ltd, https://classic.austlii.edu.au/cgi-bin/LawCite?cit=%5b2006%5d%20RPC%20379.
[62] Paulius Mockevičius, "Artificial Intelligence and Copyright", master's thesis, 2020.
[63] *Supra* note 27, p. 82-90.
[64] OpenAI, Terms of Service, https://openai.com/policies/eu-terms-of-use/, effective February 13, 2024.
[65] Midjourney, Terms of Service, version effective date: March 7, 2024 // https://docs.midjourney.com/docs/terms-of-service.
[66] China, Guangzhou Internet Court judgment as a first instance court (2024) Yue 0192 Min Chu No. 113.

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the defendant's website produced images identical or substantially similar to those from the Ultraman series. Consequently, the plaintiff filed a lawsuit against the defendant for copyright infringement. The court ultimately ruled in favour of the plaintiff, ordering the defendant to compensate for economic losses amounting to 10,000 yuan (~1400 USD)[67]. This case highlights that copyright infringement may occur when AI generated content closely resembles copyrighted works.

In another case – Li v. Liu, (2023) Jing 0491 Min Chu No. 11279[68] – Beijing Internet Court ruled that Mr Li was the author of an image generated by AI. In this instance, Mr. Li used Stable Diffusion, an image-generating AI model by initiating the process with initial prompts, reviewing the image generated by Stable Diffusion, refining the prompts until achieving the desired picture. Subsequently, he shared the final image online. The dispute emerged when Ms. Liu acquired a copy of the image and utilized it without crediting or compensating Mr. Li. Ultimately, the court ordered Ms. Liu to issue an apology and pay 500 yuan (~70 USD) to Mr. Li[69]. This case explicitly demonstrates that AI generated content can be protected, with the user being recognized as the author of such content. It upholds the traditional approach where AI is not eligible to be considered the author.

The DABUS project deserves attention as a unique case in machine learning. Unlike typical applications, DABUS isn't programmed for specific tasks but rather to generate novel ideas and identify the most valuable ones. Trained on diverse, unstructured data from various fields, DABUS autonomously developed two product concepts, including an innovative food container design. The developer argued that since the program creator lacked expertise in industrial design, they could not have conceived such products themselves. Therefore, attempts were made to patent these inventions under the program's name[70]. However, in the case of Thaler v Comptroller-General of Patents, Designs and Trademarks[71], the Court of Appeal of England and Wales ruled against Stephen Thaler. Thaler had sought to recognize the AI system as the inventor on patent applications. The court upheld that, according to the current legal framework, only a natural person can be designated as an inventor. Hence, the decision affirmed that AI cannot be acknowledged as an inventor under UK patent law.

Recently, a case in the Czech Republic addressed the issue of whether an AI generated image can be copyright protected[72]. The plaintiff, in the case presented before the lower court, aimed to establish ownership of an image generated by an AI. This image was based on the plaintiff's input to "create a visual representation of two parties signing a business contract in a formal setting, such as a conference room or a law firm office in Prague. Just show your hands". Additionally, the plaintiff sought injunctive and declaratory relief, as outlined in the judgment, due to the

[67] Seagull Song and Wang Mo, "China's first case on AIGC output infringement--Ultraman", accessed May 19, 2024 // https://www.kwm.com/cn/en/insights/latest-thinking/china-s-first-case-on-aigc-output-infringement-ultraman.html.

[68] Li v. Liu, Beijing Internet Court (Jing 0491 Min Chu No. 11279, 2023).

[69] Christopher W. Savage and James Rosenfeld, "Diverging International Approaches to the Copyrightability and Authorship of AI-created Works", accessed May 19, 2024 // https://www.dwt.com/blogs/artificial-intelligence-law-advisor/2024/01/chinese-internet-court-rules-on-ai-authorship#_ftn9.

[70] *Supra* note 62, p. 16.

[71] Thaler v Comptroller-General of Patents, Designs and Trademarks, 20 December, 2023, https://www.supremecourt.uk/cases/uksc-2021-0201.html.

[72] S. Š. vs. TAUBEL LEGAL, The Municipal Court of Prague (2023, no. 10 C 13/2023- 16).

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defendant's tortious interference with the plaintiff's copyrighted material. The defendant allegedly engaged in such interference by publishing the plaintiff's graphic artwork on its website without obtaining the plaintiff's consent. Ultimately the court held that only a natural person can be recognized as the author of a copyrighted work. Since an AI is not a natural person, it cannot be considered an author. This case also suggests that merely providing a prompt is insufficient for receiving copyright protection – the court dismissed the plaintiff's claim of authorship over an AI-created image due to insufficient evidence, relying solely on the plaintiff's statement. This outcome underscores the potential for humans to be recognized as authors of AI generated images, as discussed previously.

CONCLUSION

1. Efforts to formulate legal definitions of AI are underway, as understanding the subject is essential in order to regulate it. While definitions of AI vary across different jurisdictions, they share a common core: AI is recognized as a technology that simulates human intellectual capabilities. AI is generally understood as a system (algorithm) designed to perform tasks that typically require human intelligence, thereby embodying the essence of AI as an emulation of human cognitive abilities. Furthermore, AI can be defined as the science that studies these technologies and mechanisms designed to mimic human mental functions.
2. In the United States, there remains ongoing debate about whether text and data mining for the purposes of training AI falls within the scope of the fair use doctrine, although most seem to regard the activity of text and data mining as fair use. Consequently, authors continue to advocate for their rights, as the legality of using copyrighted material for such purposes without credit, permission, or compensation remains uncertain. In contrast, the European Union has addressed this issue more decisively by explicitly permitting these activities in the directive that has already been transposed into Lithuanian regulation as well.
3. Although no definitive answer can be provided, as current AI technology is limited to weak AI, also known as Artificial Narrow Intelligence, scholars, legal doctrine, regulators, and courts generally maintain that only humans (or, in certain cases, legal persons) can be recognized as authors, provided there is proof of sufficient human contribution and the generated content meets the requirements of originality and tangibility. This suggests that specific regulation for AI in terms of copyright is not necessary at this time. However, amendments to clarify the status of AI within copyright and other intellectual property rights frameworks could be beneficial to address ambiguities in the current legal landscape.

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LEGAL REFERENCES

Legislation

1. A *Copyright Law of the United States under Title 17 of the United States Code.* October 19, 1976. Pub. L. No. 94-553, 90 Stat. 2541;
2. *Directive 2001/29/EC of the European Parliament and of the Council on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society (InfoSoc Directive).* May 22, 2001;
3. 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;
4. *Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence.* USA. October 30, 2023;
5. The Law on Copyright and Related Rights of the Republic of Lithuania, Official Gazette, 2003, No. 28-1125;
6. Order of the Ombudsperson for Academic Ethics and Procedures of the Republic of Lithuania No V-14 of 29 April 2024 on the approval of the guidelines for the ethical use of artificial intelligence in the process of science and studies;
7. Appendix A of the Directive on Automated Decision-Making, 2019;
8. *Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139, (EU) 2019/2144, and Directives 2014/90/EU, (EU) 2016/797, (EU) 2020/1828.* May 13, 2024;
9. Copyright, Designs and Patents Act 1988 (UK) s 9(3);
10. Copyright Act 1994 s 5(2)(a);
11. Copyright Act 1957 (2)(d)(vi);
12. Copyright Act 1978 s1(1)(h);

Case law

13. *China, Guangzhou Internet Court judgment as a first instance court,* 2024 Yue 0192 Min Chu No. 113;
14. *Li v. Liu,* Beijing Internet Court, 2023, Jing 0491 Min Chu No. 11279;
15. *Mata v. Avianca, Inc.,* United States District Court Southern District of New York, 2023, No. 1:22-cv-01461;
16. *S. Š. vs. TAUBEL LEGAL,* The Municipal Court of Prague, 2023, No. 10 C 13/2023-16;
17. *Thaler v. Perlmutter,* United States District Court for the District of Columbia, 2023, No. 1:22-cv-01564-BAH;
18. Shenzhen Tencent Computer System v Shanghai Yingxun Technology, 2019;
19. Thaler v Commissioner of Patents [2021] FCA 879;

ISSN 2029-4239 (online)
Teisės apžvalga
Law review
No. 1 (29), 2024, p. 25-40

20. LawCite, Nova Productions Ltd v Mazooma Games Ltd, https://classic.austlii.edu.au/cgi-bin/LawCite?cit=%5b2006%5d%20RPC%20379;
21. Thaler v Comptroller-General of Patents, Designs and Trademarks, 20 December, 2023, https://www.supremecourt.uk/cases/uksc-2021-0201.html;

Special literature

22. S. Russel and P. Norvig, “Artificial Intelligence: A Modern Approach”, Fourth Edition, Global Edition. Pearson Education Limited, 2022;
23. P. McCorduck, “Machines Who Think”, Natick: A. K. Peters, 2004;
24. N. Gaubienė, “Lithuanian artificial intelligence strategy: is artificial intelligence understood correctly?”, TeisėPro, 2019;
25. Danielle Keats Citron, Frank Pasquale, “The Scored Society: Due Process for Automated Predictions”, vol. 89 WASH. L. REV. 1, 2014;
26. David W. Opderbeck, “Copyright in AI Training Data: A Human-Centered Approach”, Oklahoma Law Review, Vol. 76, 2024 (Forthcoming);
27. R. Birštonas, “Commentary on the Law on Copyright and Related Rights of the Republic of Lithuania”, Vilniaus universiteto leidykla, 2024;
28. Jenny Quang, “Does Training AI Violate Copyright Law?” (2021) 36(4) Berkeley Technology Law Journal 1407;
29. Kiškis, M., “Doctrines of intellectual property rights”, Law, vol. 73. Vilnius, 2009;
30. Faye F. Wang, “Copyright Protection for AI generated Works: Solutions to Further Challenges from Generative AI” (2023) 5:1 Amicus Curiae 88;
31. Mizaras, V., “Copyright: Vol. 1”, Vilnius: Justitia, 2008;
32. Birštonas, R. et al., “Intellectual Property Law: textbook”, Vilnius: Registrų centras, 2010;
33. Kurki, Visa A J, “The Legal Personhood of Artificial Intelligences”, in A Theory of Legal Personhood, Oxford Scholarship Online, 2019;
34. Bond, T., Blair, R., “Artificial Intelligence & copyright: Section 9(3) or authorship without an author”, Journal of Intellectual Property Law & Practice, Vol. 14, Issue 6, 2019;
35. Paulius Mockevičius, “Artificial Intelligence and Copyright”, master’s thesis, 2020.
36. Paivi Hutukka. *Copyright Law in the European Union, the United States and China*. International Review of Intellectual Property and Competition Law, Vol. 54 (2023): 1044-1080 // DOI: 10.1007/s40319-023-01357-0;
37. *Sag Matthew, “Fairness and Fair Use in Generative AI”, Fordham Law Review, Vol. 92 (2024): 1887-1921 // SSRN: https://ssrn.com/abstract=4654875;*
38. Vikas Hassija. *Interpreting Black-Box Models: A Review on Explainable Artificial Intelligence*. Cognitive Computation, Vol. 16 (2024): 45-74 // DOI: 10.1007/s12559-023-10179-8;
39. William Fisher. *Theories of intellectual property*. accessed May 19, 2024 // https://cyber.harvard.edu/people/tfisher/iptheory.pdf;
40. Yash Goyal. *Towards Transparent AI Systems: Interpreting Visual Question Answering Models*. accessed May 19, 2024 // https://arxiv.org/pdf/1608.08974;

ISSN 2029-4239 (online)
Teisės apžvalga
Law review
No. 1 (29), 2024, p. 25-40

41. D. Lehr and P. Ohm, “Playing with the Data: What Legal Scholars Should Learn About Machine Learning”, 51 U.C. DAVIS L. RFV. 653, 655, 2017;
42. A. J. Wulf, and O. Seizov, “Artificial Intelligence and Transparency. A Blueprint for Improving the Regulation of AI Applications in the EU”, European Business Law Review, 31, 2020 (4);

Other references

43. Vézina, B., Peters, D., “Why We’re Advocating for a Cautious Approach to Copyright and Artificial Intelligence”, Creative Commons, 2020, accessed June 30, 2024 // https://creativecommons.org/2020/02/20/cautious-approach-to-copyright-and-artificial-intelligence/;
44. Papakonstantinou, V & P De Hert, “Refusing to Award Legal Personality to AI: Why the European Parliament Got It Wrong”, European Law Blog, 2020;
45. European Parliament, “Report on Intellectual Property Rights for the Development of Artificial Intelligence Technologies” (2020/2015(INI)), Committee on Legal Affairs, Rapporteur: Stéphane Séjourné, 2 October 2020;
46. European Commission, “IP Helpdesk: Intellectual Property in ChatGPT”, 2023;
47. U.S. Copyright Office, “Copyrightable Authorship: What Can Be Registered”, Compendium: Chapter 300, 2021, p. 7, accessed June 30, 2024 // https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf;
48. OpenAI, Terms of Service, https://openai.com/policies/eu-terms-of-use/, effective February 13, 2024;
49. Midjourney, Terms of Service, version effective date: March 7, 2024 // https://docs.midjourney.com/docs/terms-of-service;
50. Cambridge dictionary, accessed May 19, 2024 // https://dictionary.cambridge.org/dictionary/english/artificial-intelligence;
51. Christopher W. Savage and James Rosenfeld. “Diverging International Approaches to the Copyrightability and Authorship of AI-created Works”, accessed May 19, 2024 // https://www.dwt.com/blogs/artificial-intelligence-law-advisor/2024/01/chinese-internet-court-rules-on-ai-authorship#_ftn9;
52. Collins dictionary, accessed May 19, 2024 // https://www.collinsdictionary.com/dictionary/english/artificial-intelligence;
53. John McCarthy. “A proposal for the Dartmouth summer research project on artificial intelligence”, accessed May 19, 2024 // http://jmc.stanford.edu/articles/dartmouth/dartmouth.pdf;
54. John McCarthy. “What is artificial intelligence?”, accessed May 19, 2024 // http://jmc.stanford.edu/articles/whatisai/whatisai.pdf;
55. Lithuanian artificial intelligence strategy, a Vision of the Future, accessed June 29, 2024 // https://eimin.lrv.lt/media/viesa/saugykla/2024/3/FmyQZ_9_OSU.pdf;
56. Marriam-Webster dictionary, accessed May 19, 2024 // https://www.merriam-webster.com/dictionary/artificial%20intelligence;
57. Matt McFarland. “With artificial intelligence we are summoning the demon”, accessed May 19, 2024 //

ISSN 2029-4239 (online)
Teisės apžvalga
Law review
No. 1 (29), 2024, p. 25-40

https://www.washingtonpost.com/news/innovations/wp/2014/10/24/elon-musk-with-artificial-intelligence-we-are-summoning-the-demon/;
58. Rockwell Anyoha. “The History of Artificial Intelligence”, accessed May 19, 2024 // https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/;
59. Seagull Song and Wang Mo. “China’s first case on AIGC output infringement--Ultraman”, accessed May 19, 2024 // https://www.kwm.com/cn/en/insights/latest-thinking/china-s-first-case-on-aigc-output-infringement-ultraman.html;
60. United States Copyright Office, accessed May 19, 2024 // https://www.copyright.gov/docs/zarya-of-the-dawn.pdf.

SANTRAUKA

DIRBTINIO INTELEKTO IR AUTORIŲ TEISIŲ SANKIRTA: IŠŠŪKIAI IR NAUJOVĖS

Nors šiuo metu nėra visuotinai priimto dirbtinio intelekto apibrėžimo, paprastai jį galima suskirstyti į dvi pagrindines sąvokas: pirma, kaip mechanizmą ar technologiją, skirtą imituoti žmogaus kognityvinius gebėjimus, ir, antra, kaip mokslo sritį, kurioje tiriamos technologijos ir mechanizmai, atkartojantys žmogaus kognityvines funkcijas. Per pastarąjį dešimtmetį dirbtinis intelektas neabejotinai tapo neatsiejama mūsų kasdienio gyvenimo dalimi, sparčiai vystosi ir plečiasi jo taikymo sritys įvairiuose sektoriuose. Nuo moksleivių mokyklose iki aukštos kvalifikacijos specialistų, pavyzdžiui, patyrusių praktikuojančių teisininkų, praktiškai kiekvienas žmogus yra susidūręs su dirbtiniu intelektu arba vienokia ar kitokia forma su juo sąveikavęs.

Dirbtinio intelekto taikymo spektras yra platus ir įvairus: jis apima idėjų generavimą, vaizdų kūrimą, kasdienių procesų automatizavimą ir net dirbtinio intelekto pagalbą žmonėms funkcionuojant. Tačiau platus dirbtinio intelekto naudojimas taip pat kelia daugybę teisinių iššūkių, ypač tokiose srityse kaip intelektinė nuosavybė, civilinė atsakomybė, skaidrumas ir reguliavimas. Akivaizdu, kad nors tokios revoliucinės technologijos kaip dirbtinis intelektas suteikia daug privalumų, netinkamas jų valdymas ar netinkamas reguliavimas gali turėti didelių pasekmių, ypač atsižvelgiant į galimą superintelekto, pranoksiančio žmogaus gebėjimus, atsiradimą ateityje.

Šio straipsnio tikslas – išnagrinėti pagrindinius teisinius klausimus, susijusius su generatyviniu dirbtiniu intelektu. Konkrečiai jame nagrinėjami trys pagrindiniai klausimai: 1) ar generatyviniam dirbtiniam intelektui taikomi pakankami skaidrumo reikalavimai; 2) ar generatyvinio dirbtinio intelekto mokymas naudojant autorių teisėmis saugomą medžiagą pažeidžia autorių teisių įstatymus; ir 3) ar dirbtinio intelekto generuojami vaizdai ar tekstai (atsakymai į užklausas) gali būti saugomi autorių teisių.

Straipsnį sudaro dvi pagrindinės dalys. Pirmoje dalyje aptariami minėti iššūkiai, susiję su skaidrumu, generatyvinio dirbtinio intelekto mokymu ir teisinėmis dirbtinio intelekto sukurto turinio pasekmėmis. Kadangi sprendžiant dirbtinio intelekto keliamas problemas ir valdant riziką svarbų vaidmenį atlieka visos trys pagrindinės valstybės institucijos: įstatymų leidžiamoji, vykdomoji ir teisminė valdžia, antroje dalyje daugiausia dėmesio skiriama įvairių jurisdikcijų,

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įskaitant Europos Sąjungą, Jungtines Amerikos Valstijas, Kinijos Liaudies Respubliką ir Indiją, teisinės bazės, oficialių valstybinių institucijų pozicijų ir teismų praktikos palyginimui.

REIKŠMINIAI ŽODŽIAI

Dirbtinis intelektas, generatyvinis dirbtinis intelektas, teisė, autorių teisės, teismų praktika.