Legal Protection from Artificial Intelligence Technology Used to Filter Visual Contents via the Internet

Naser Al-Sherman[1]

Abstract

Artificial intelligence technology is used to filter the visual content displayed on digital display platforms in a way that enhances its competitive role and organizes its content. It also involves several risks, including the possibility of causing direct damage to users of visual content display platforms via the Internet. The utilization of artificial intelligence technology for content filtering on these platforms gives rise to legal concerns regarding the liability framework in cases of damages resulting from such filtering activities. This is due to the absence of established legal regulations governing the use of artificial intelligence technology, as well as the ongoing development or nonexistence of relevant legal rules. Furthermore, the user base of these platforms continues to expand. The study proposes the adoption of a liability system that achieves a balance between the owners, operators, or developers of these platforms and their users. The responsibility of the stronger party arises as soon as the damage occurs. This type of responsibility is more suitable for the circumstances surrounding the employment of artificial intelligence tools in filtering visual content on digital display platforms via the Internet.

Keywords: Technology, artificial intelligence, legal protection, visual content

Introduction

The utilization of artificial intelligence tools is on the rise in the filtration of digital visual content platforms. This trend gives rise to numerous legal issues, encompassing privacy infringements, intellectual property violations, and breaches of societal and ethical norms (Shangaraev, & Timakova, 2020). Unfortunately, there is no appropriate liability system that effectively and comprehensively safeguard against these risks.

There is an increasing need for legal protection in the form of regulation and guidelines to ensure the safe and ethical use of artificial intelligence tools on these platforms(Gerstner, 1993). These measures aim to provide legal protection for users, and set frameworks for the ethics, screening, and filtering aspects of visual content. Ultimately, the goal is to establish a clear policy for how these tools work (Elkin-Koren, 2020). Legal safeguards against the risks associated with

---

[1] Associate Professor of Commercial Law - College of Law- American University in the Emirates - Naser.sherman@aue.ae

using artificial intelligence tools on the platforms of visual content platforms can be implemented through adaptable rules that focus on protecting privacy (Chesterman, 2020). Additionally, these safeguards should aim to prevent infringement of intellectual property rights and establish legal mechanisms to address the risks associated with the use of artificial intelligence tools for content filtering (Kingston, 2016)

The study's main problem is the absence of a well-defined responsibility system that safeguards users of digital display platforms against the risks posed by artificial intelligence tools that filter out harmful visual content (Arnold, & Goug, 2017). Despite the existence of notable legal distinctions between platform users and their respective owners, operators, or developers.

The artificial intelligence technology is used to display visual content across digital platforms

Artificial intelligence systems have multiple definitions and are regarded as a subdivision of modern knowledge in the field of computer science. They entail the investigation and examination of contemporary programming techniques that facilitate the production of logical inferences similar to human reasoning (Ergen, 2019). These systems employ previous inputs in their underlying programming to imitate human intelligence, but their objective is not to supplant human cognition. However, their primary objective is to greatly reduce errors (McCarthy, 2007) when used correctly. Thus, this technology can engage in thinking, deduction, and making adjustments as needed. The process entails choosing content from a range of options based on specific data that can be generated concurrently. Artificial intelligence pertains to the augmentation of computers' abilities to understand, infer, perceive, and acquire knowledge through advanced programming. Artificial intelligence technology possesses the capacity to emulate human intelligence and exhibits the same logical reasoning abilities as humans (Drigas, Argyri, & Vrettaros, 2009).

A. Components of artificial intelligence technology for filtering visual contents from a legal point of view

Legally speaking, the components of artificial intelligence tools refer not to the technical aspects of the hardware and software involved in the functioning of AI technology (hardware and software) (Kuma, & Garg, 1999), but rather to the components that facilitate the comprehension and balancing the liability for the damages caused by the activities of artificial intelligence technology used to filter visual contents across digital platforms. From this point of view, it can be said that artificial intelligence technology consists of key components.

1. **Inputs**: It is the data and information entered by the technology producer, programmer, and developer, or the information collected through the artificial intelligence technology tools themselves during their work.

2. **Results or outputs**: It is the result given to the beneficiary after examining and analyzing the expected requirements of the beneficiary, where artificial intelligence technology performs filtering processes and provides the best results according to logical inferences approved in its work systems, so artificial intelligence technology can link (Guy et al., 2013) the experiences and interests of the user to specific content and then filter it.

3. **Data, algorithms, and outputs**: Data is what is fed to artificial intelligence tools as information based on which decisions are made after collecting, processing, and using data of all kinds(California Legislative Information, 2018). Algorithms are complex systems used to analyze and learn from data and make decisions based on it (European Commission, 2019). Then the outputs, which include the outputs of artificial intelligence systems in various forms as decisions or actions.

We believe that the aforementioned elements are considered reliable components for studying the risks associated with filtering visual content. They also provide a basis for interpreting the concept of balancing liability limits for damages to the beneficiary. This interpretation is based on the policies governing the operation of these technologies and their presentation of content specifically intended for a particular beneficiary.

B. The goal of using artificial intelligence technology to filter visual content across digital platforms

The goal of using Artificial intelligence tools to display visual content through digital platforms is to improve the user experience and make the process of finding, creating, or sharing digital visual content more efficient and effective. AI tools can filter and recommend content, allowing for faster and more accurate results.

From this perspective, the primary objective of artificial intelligence tools employed in digital display platforms is to fulfill user needs, enhance platform performance to boost user engagement, recommend relevant and preferred content, and filter it in a manner that aligns with user desires. These tools strive to simulate human intelligence by comprehending, processing, and fulfilling specific desires, ultimately making decisions based on this data. The ultimate goal of these artificial intelligence tools is to foster fair competition by attracting the maximum

number of beneficiaries to a particular platform. Artificial intelligence is one of the components of the future of competition (Von & Malhi, 2020).

For instance, the platform sequentially presents visual content, connected through a specific link. This linking process is not random; instead, it involves organizing and filtering the content based on artificial intelligence tools that rely on various criteria. These criteria include the user's interests, such as sports, science, art, or other topics, as well as their previous viewing history, intentional recordings or searches, geographical location, and interest in specific activities occurring at certain times. Visual contents are presented based on the prevailing preferences or trends of the local users at certain times, or residents in a specific area (Culotta et al., 2015, February), etc.

If content is filtered against the user's preferences based on inferences and data from artificial intelligence technology that is not appropriate for the user of the platform, it can cause harm to the user. In such cases, responsibility arises under various circumstances and hypotheses.

The user is at a disadvantage in these situations (Winkler et al., 1982) as they are unable to provide evidence of responsibility against artificial intelligence technology and its operators. This is particularly true due to the lack of clear and precise legislation that regulates these obligations because the operators of the display platforms or their headquarters are located under a different legal system and are accessed via the global Internet. The user's location in a different country with a different legal system complicates matters regarding conflict of laws and determining the appropriate court to handle the dispute. Additionally, the legal description for visual content varies across different legal systems. This emphasizes the importance of holding operators of digital display platforms accountable for the content they filter using artificial intelligence technology. Operators should be strictly liable for any damages caused by their deviation from the intended purpose of the platform. This will be discussed further in the second requirement.:

Responsibility for Artificial intelligence technology use in Visual Contents Filtering

There are several justifications for tightening legal liability for AI tool activities used to filter visual content, as follows:

- **Protection of consumer rights**: Tightening legal liability helps to protect consumers' rights, ensures that personal data is not misused or manipulated without the user's consent, and makes filtering standards adoption more transparent for the user.

- **Decrease the occurrence of harm**: AI algorithms can contribute to the dissemination of harmful content, and tightening legal liability reduces the occurrence of this and gives the impression of strict accountability to platform operators and AI tool developers.

- **Encourage ethical practices adoption** (Miernicki, M., & Ng, I., 2021): when utilizing artificial intelligence tools (Brożek & Janik, 2019) for content filtering. This is important because having a clear responsibility system facilitates and enhances the accountability of artificial intelligence developers and platform operators for their actions.

- **Intellectual property protection**: Tightening legal liability will help protect the intellectual property rights of content creators and ensure that their work is not used without permission.

Therefore, we believe that the rules of strict liability must be adopted in such circumstances for several reasons, which can be summarized as follows:

- To establish the full liability (damage, error, and causal relationship between the fault and the damage (Gerstner, M.E.: Comment, liability issues with artificial intelligence software, 33 Santa Clara L. Rev. 239), the injured party must demonstrate negligence, breach of the duty of care, and damage (Tuthill, 1991).

- The injured party lacks comprehensive knowledge regarding the functioning of digital display platforms that utilize artificial intelligence technology for content filtering. He can easily establish the damage as the primary factor on which objective liability is founded. Subsequently, the harm inflicted upon the injured party can be remedied, while allowing the other party to absolve themselves of liability within reasonable bounds, contingent upon the nature of artificial intelligence technology. This is contingent upon proving that the injured party's fault is the sole reason for defending against responsibility.

- The operator of the digital display platform has control over the artificial intelligence technology used in the content filtering process (Elkin-Koren, N., 2020). This control extends to filtering out content that incites hatred, which is universally rejected by all human beings (Wu, T., 2019). Certain practices may be prohibited in general, and violations of these practices may be prohibited in specific societies (Neuwirth, R. J.,2023).

Furthermore, artificial intelligence applications can cause harm that extends to content creators, impacting their profits and overall activity. This is

compounded by the unsatisfactory policies implemented by content creation platforms, such as YouTube.

a. The extent of liability for damages caused by artificial intelligence technology used in electronic platforms to filter visual content

The extent of legal responsibility for harm resulting from objectionable visual content screened by AI tools is contingent upon various factors, such as the efficacy of the AI tool in fulfilling its intended purpose (Faruk et al., 2021), the applicable law and competent court, and the prevailing external circumstances.

If the filtering of specific content was unsuccessful due to the failure of the artificial intelligence tools, which were initially promoted as protective measures against malicious and harmful content unsuitable for certain users, then the operator assumes complete responsibility. This is because the artificial intelligence tool has a predefined role, and therefore the operator is subject to contractual or tort liability, depending on the circumstances.

The primary legal issues revolve around determining the applicable law, the competent court, and the legal adjustment of content filtering to comply with the laws of a specific country. It is worth noting that the relevant legislation is still being developed and differs from laws concerning the responsibility for publishing content that is initially prohibited, such as certain information crimes. There is currently no specific legislation that pertains to the responsibility for harm caused by malicious videos that have been detected and filtered by artificial intelligence tools. Nevertheless, there exist several prevailing laws and regulations that may be applicable in such instances (Directive, 2000).

Furthermore, apart from these overarching laws, there may exist particular laws and regulations that apply to specific categories of content. Examples of such laws include those that regulate the distribution of pornography or materials that promote hatred. We strongly advocate for the implementation of legislation that safeguards against the harmful effects of artificial intelligence tools.

The extent of liability can vary based on the type of breach, such as an intrusion of privacy, if the content filtering tools utilize user information and data without their consent.

The extent of legal responsibility for damages to the presentation of visual content on digital platforms remains ambiguous due to various factors:

- A lack of specific legal regulations regarding the determination of responsibility for damages caused by visual content that is filtered and displayed on digital platforms.

- The continuous development of artificial intelligence tools in a way that conventional legislation cannot keep up.

- The possibility of self-development of these tools makes them not entirely controlled by their operator.

- There is uncertainty regarding the degree to which this technology is legally recognized as having its personality and is held accountable by its operator, who does not have complete control over it.

- The legislation governing the activities of artificial intelligence tools used to filter visual content is characterized by its unpredictable content and method of enactment.

The extent of legal liability of AI tools used in visual content platforms may vary based on factors such as the intended purpose of the technology for broadcasting specific ideas, the level of control exerted by the AI operator or developer, the type of harm caused, and other relevant circumstances that directly influence this matter.

b. The presence of legal personality components for AI technology

The components and functioning of artificial intelligence technology exhibit a level of autonomy in decision-making and task execution, to the extent that it seems capable of attaining legal personhood.

For instance, pools of funds or individuals, along with other legal entities, have been bestowed with legal personality due to the constituent elements that establish their autonomy from their constituent parts and those responsible for them.

We believe that artificial intelligence technology possesses some degree of independence (Chesterman, 2020). When considering the legal personhood of an entity, it is important to acknowledge their assumption of responsibility, obligations, and acquisition of rights. This legal personhood is granted to certain entities, such as aircraft and ships, by legislators in various countries. Despite being composed of funds or individuals, these entities are independent from them. Therefore, it is permissible to grant legal personhood to any entity when circumstances and the public interest necessitate it. Failing to do so would result in harm to the interests of others.

Due to significant technological advancements, various entities have emerged with distinct capabilities and characteristics that allow them to assume obligations and acquire rights autonomously. However, these entities do not attain full independence as separate legal entities due to their inability to fulfill the requirements of basic legal personality, particularly independent financial

disclosure. Artificial intelligence technology can autonomously express its intentions based on pre-programmed data and inferences, as well as through iterative operations and self-programming. It can independently filter content. So, it is clear that to be considered a legal person with responsibilities, rights, and obligations, certain elements must be present in artificial intelligence technology.

c.   The applicability of strict liability for damage to Artificial intelligence tools utilized in visual content filtering

The determination of responsibility for the damage caused by artificial intelligence tools used to filter visual content on digital platforms is still being developed. Currently, there is no clear framework for establishing the elements of responsibility in this case due to the presence of several fundamental elements with unpredictable outcomes and limits. This lack of a framework extends to the level of control and knowledge possessed by the platform operator, as well as the degree of human involvement in guiding the decisions of artificial intelligence tools and the ability to ascertain the actual cause of the damage. The extent and nature of the damage will determine which legal rules apply, such as product damage liability systems (Kingston, 2016), contractual liability rules, or even tort liability rules. In some cases, new frameworks may be created to establish a liability system that is suitable for the specific nature of artificial intelligence tools and their application field (Chen et al., 2022).

We believe that the most suitable liability system for damages caused by artificial intelligence tools used in visual content filtering operations is the objective responsibility system, based on the damage element only. This system holds the operator of the display platform responsible as soon as the damage occurs, based on the concept of objective responsibility. In the case of artificial intelligence techniques, they can be considered as products rather than independent legal entities. Therefore, the producer or creator of these tools should be held accountable according to the principles of objective responsibility. Since this technology is a tool that can cause harm to third parties, strict liability rules should be appropriately applied to damages caused by the use of artificial intelligence applications. The doctrine of strict liability is applicable.

The complicating factor arises when artificial intelligence tools autonomously filter content to some extent, without being fully controlled by their creator after their creation stage. Considering the information provided, it is necessary to highlight several key points:

1.   The programmer or creator lacks complete control over the artificial intelligence technology, and any resulting damage is unintentional and

beyond their awareness or knowledge. Therefore, the actions and outcomes of the technology do not imply any mistake, fraud, or intentional act on the part of the creator, but rather occur without their knowledge or intention.

2.   Artificial intelligence technology, despite some arguments advocating for granting it legal personality, is simply a technical tool within an exhibition platform. It cannot independently implement compensation decisions as it lacks financial disclosure or an independent personality. Instead, it functions solely as a tool with specific descriptions, with its owner having no control over the outcomes of its work. Its primary role is to filter specific content.

3.   The circumstances surrounding the use of artificial intelligence technology to filter visual content on digital display platforms are incompatible with the traditional rules of responsibility in terms of proving its elements (error, damage, and causation). This is particularly true when considering the level of freedom and independence that artificial intelligence operates with, its complexity, the way it functions, and its reliance on entities that are subject to a legal system outside the jurisdiction of the injured party.

4.   In situations where a claim of liability arises due to the harm caused by artificial intelligence technology's filtering of visual content, certain legal systems may not have a defendant. Additionally, if the operator is being sued for compensation for damages inflicted upon the user, they may argue that they are not liable because they did not interfere with the filtering of visual content.

Based on the information provided, it is evident that injured individuals face challenges in proving liability to receive compensation for their damages. This leads to instability in legal systems. Therefore, it is necessary to implement an objective liability system that focuses solely on proving the extent of the damage. In this system, the injured person would only need to demonstrate the damage they have suffered. The responsibility of the other party would then be determined by proving the fault of the injured person. This approach aims to achieve a balance between the interests of both parties involved. The responsibility of the party with significant control over artificial intelligence technology (referred to as the strong center) has been increasingly emphasized about the party that is negatively affected by the display platforms (referred to as the weak center). This responsibility encompasses economic power, material resources, and any other influential factors that impact the balance of the relationship between the two parties.

Conclusion and Recommendations

The study focused on the legal safeguards against the potential dangers posed by artificial intelligence tools used for filtering visual content on internet-based digital display platforms. The study yielded a series of findings and recommendations, with the most significant ones being:

- The tools employed in artificial intelligence technology for filtering visual content are continuously advancing, thus necessitating the adaptation of traditional legal regulations to accommodate these advancements.

- Currently, there is a lack of a well-defined legal framework to safeguard digital platform users from the potential dangers associated with content filtering facilitated by artificial intelligence tools.

- Implementing stricter liability for damages incurred by users of visual content platforms filtered through artificial intelligence techniques is more equitable than applying standard liability regulations.

- The legal regulations about technological advancement are in a perpetual state of evolution, parallel to the progress of technology. Without this continuous adaptation, legislative texts lose their significance and become devoid of value.

Recommendations

- It suggested that the necessity of implementing legislative mechanisms that allow for the creation of adaptable legal regulations that can be quickly developed to govern the filtration of visual content by artificial intelligence. This is crucial due to the ongoing advancements in this field and the ever-expanding and diverse audience it serves, encompassing all sectors, age groups, and cultures.

- The utilization liability system is inadequate for addressing damages caused by content filtering tools that utilize artificial intelligence techniques. This is because there is an imbalance between the parties involved in the dispute, and the injured party faces difficulties in proving the elements of responsibility.

- Establish comprehensive guidelines for practices that strictly prohibit the utilization of artificial intelligence technology.

- Enforcing stringent legal regulations that require operators of digital platforms utilizing artificial intelligence tools for content filtering to regularly

assess, consistently enhance, and tailor technological tools to align with the characteristics of each society.

- Establish comprehensive legal frameworks to govern the utilization of artificial intelligence technology, to prevent unjust practices or the endorsement of content that contradicts specific cultural norms.

- International agreements should be established to ensure that digital platform operators are held responsible for their global activities. This will prevent individuals from being left without recourse when faced with artificial intelligence technology that they are unfamiliar with, laws they are unaware of, and courts they cannot access to file their claims.

References

Selim M (2009). *The scope of rebound damage - without publishing house*. Cairo. Ergen, M. (2019). What is artificial intelligence? Technical considerations and future perception. *Anatolian J. Cardiol*, *22*(2), 5-7.

McCarthy, J. (2007). *What is artificial intelligence?* Drigas, A. S., Argyri, K., & Vrettaros, J. (2009). Decade review (1999-2009): artificial intelligence techniques in student modeling. In Best Practices for the Knowledge Society. Knowledge, Learning, Development, and Technology for All: Second World Summit on the Knowledge Society, WSKS 2009, Chania, Crete, Greece, September 16-18, 2009. Proceedings 2 (pp. 552-564). Springer Berlin Heidelberg.

Kapur, P. K., Kumar, S., & Garg, R. B. (1999). *Contributions to hardware and software reliability* (Vol. 3). World Scientific.

Guy, I., Avraham, U., Carmel, D., Ur, S., Jacovi, M., & Ronen, I. (2013, May). Mining expertise and interests from social media. In Proceedings of the 22nd International Conference on World Wide Web (pp. 515-526).

California Legislative Information. (2018). California Consumer Privacy Act (CCPA). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?

European Commission. (2019). *Ethics guidelines for trustworthy AI*. https://ec.europa.eu/digital-single-market/en/news/ ethics-guidelines-trustworthy-ai

NHTSA. (2016). Federal Automated Vehicles Policy. Retrieved from https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ 13069a-ads2.0_090617_v9a_tag.pdf

Kalpokiene, J., & Kalpokas, I. (2023). Creative encounters of a posthuman kind–anthropocentric law, artificial intelligence, and art. *Technology in Society*, 102197.

Tian, Z. (2021, June). Application of Artificial Intelligence System in Libraries through Data Mining and Content Filtering Methods. In *Journal of Physics: Conference Series*, 1952(4), 042091

Karizat, N., Delmonaco, D., Eslami, M., & Andalibi, N. (2021). Algorithmic folk theories and identity: How TikTok users co-produce Knowledge of identity and engage in algorithmic resistance. *Proceedings of the ACM on human-computer interaction*, *5*(CSCW2), 1-44.

Von Bonin, A., & Malhi, S. (2020). The Use of Artificial Intelligence in the Future of Competition Law Enforcement. *Journal of European Competition Law & Practice*, *11*(8), 468-471.

Culotta, A., Kumar, N., & Cutler, J. (2015, February). Predicting the demographics of twitter users from website traffic data. In *Proceedings of the AAAI conference on artificial intelligence* (Vol. 29, No. 1).

Burrell, J. (2016). How the machine 'thinks': Understanding opacity in machine learning algorithms. Big Data & Society, 3(1). https://doi.org/10.1177/2053951715622512

Burrell, J. (2016). How the machine 'thinks': Understanding opacity in machine learning algorithms. *Big Data & Society*, 3(1). https://doi.org/10.1177/2053951715622512

Singh, N., Zhao, H., & Hu, X. (2005). Analyzing the cultural content of websites: A cross- national comparison of China, India, Japan, and the US. *International Marketing Review*, *22*(2), 129-146.

McCosker, A. (2022). Making sense of deepfakes: Socializing AI and building data literacy on GitHub and YouTube. *New Media & Society*, 14614448221093943.

Winkler, J. D., Kanouse, D. E., & Ware, J. E. (1982). Controlling for acquiescence response set in scale development. *Journal of Applied Psychology*, *67*(5), 555.

Miernicki, M., & Ng, I. (2021). Artificial intelligence and moral rights. *AI & SOCIETY*, *36*, 319-329.

Brożek, B., & Janik, B. (2019). Can artificial intelligence be a moral agents? *New ideas in psychology*, *54*, 101-106.

Hall, H. K. (2018). Deepfake videos: When seeing isn't believing. Cath. UJL & Tech, 27, 51.

Asad, M., Halim, Z., Waqas, M., & Tu, S. (2021). An In-ad contents-based viewability prediction framework using Artificial Intelligence for Web Ads. *Artificial Intelligence Review*, *54*(7), 5095-5125.

Shangaraev, R., & Timakova, O. (2020, December). Arab Spring Revolutions and Digital Technologies: Implications for Russia. In *Proceedings of the International Conference Digital Age: Traditions, Modernity, and Innovations (ICDATMI 2020)* (pp. 107-110). Atlantis Press.

Gerstner, M.E.: Comment, liability issues with artificial intelligence software, 33 Santa Clara L. Rev. 239. http://digitalcommons.law.scu.edu/lawreview/vol33/iss1/7 (1993)

Tuthill, G. S. (1991). Legal liabilities and expert systems. *AI Expert*, *6*(3), 44-51.

Elkin-Koren, N. (2020). Contesting algorithms: Restoring the public interest in content filtering by artificial intelligence. *Big Data & Society*, 7(2), 2053951720932296.

Wu, T. (2019). Will artificial intelligence eat the law? The rise of hybrid social-ordering systems. *Columbia Law Review*, *119*(7), 2001-2028.

Neuwirth, R. J. (2023). Prohibited artificial intelligence practices in the proposed EU artificial intelligence act (AIA). *Computer Law & Security Review*, *48*, 105798.

Ponkin, I. V., & Redkina, A. I. (2018). Artificial Intelligence from the Point of View of Law. *RUDN Journal Of Law, 22*(1), 91-109. doi: 10.22363/2313-2337-2018-22-1-91-109

Hoffmann-Riem, W. (2020). Artificial intelligence is a challenge for law and regulation. *Regulating artificial intelligence*, 1-29.

Hoffmann-Riem, W. (2020). Artificial intelligence is a challenge for law and regulation. Regulating artificial intelligence, 1-29.

Faruk, M. J. H., Shahriar, H., Valero, M., Barsha, F. L., Sobhan, S., Khan, M. A., ... & Wu, F. (2021, December). Malware detection and prevention using artificial intelligence techniques. In 2021 IEEE International Conference on Big Data (Big Data) (pp. 5369-5377). IEEE.

Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce')

Chesterman, S. (2020). ARTIFICIAL INTELLIGENCE AND THE LIMITS OF LEGAL PERSONALITY. *International & Comparative Law Quarterly, 69* (4), 819-844. doi: 10.1017 / S0020589320000366

Ziemianin, K. (2021). Civil legal personality of artificial intelligence: Future or utopia?. Internet Policy Review, 10(2), 1-22.

Arnold, B. B., & Gough, D. (2017). Turing's people: Personhood, artificial intelligence, and popular culture. Canberra Law Review, 15(1), 1-37.

Talimonchik, V. P. (2021). The Prospects for the Recognition of the International Legal Personality of Artificial Intelligence. *Laws*, *10*(4), 85.

Kingston, J. K. (2016). Artificial intelligence and legal liability. In *Research and Development in Intelligent Systems XXXIII: Incorporating Applications and Innovations in Intelligent Systems XXIV 33* (pp. 269-279). Springer International Publishing.

Chen, A., Wang, C., & Zhang, X. (2022). Reflection on the equitable attribution of responsibility for artificial intelligence-assisted diagnosis and treatment decisions. *Intelligent Medicine*.