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WHO IS LIABLE FOR ARTIFICIAL INTELLIGENCE? LEGAL RESPONSIBILITY IN AUTOMATED DECISION-MAKING

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Annotation: The rapid development and widespread use of artificial intelligence (AI) technologies have significantly transformed modern social, economic, and legal relations. Automated decision-making systems are increasingly applied in areas such as finance, healthcare, public administration, and law enforcement, which raises complex questions regarding legal liability for harm caused by AI systems. Traditional legal concepts of fault, causation, and responsibility often prove insufficient when applied to autonomous or semi-autonomous technologies. This article examines the key legal liability issues arising from the use of artificial intelligence, with particular attention to identifying responsible subjects, including developers, operators, and users. Using comparative legal analysis and formal-legal methods, the study explores existing regulatory approaches and highlights gaps in current legal frameworks. The findings demonstrate that the absence of clear liability rules undermines effective protection of individual rights and legal certainty. The article proposes conceptual approaches for improving legal regulation of AI-related liability in the context of automated decision-making.

Key words: Artificial intelligence, legal liability, automated decision-making, civil liability, legal regulation.

Artificial intelligence has become one of the most influential technological developments of the twenty-first century, reshaping traditional forms of human activity and decision-making. AI-based systems are increasingly capable of performing complex tasks that were previously reserved for human judgment, including data analysis, prediction, and automated decision-making. As a result, artificial intelligence is no longer merely a technical innovation but a significant social and legal phenomenon that directly affects fundamental rights, economic relations, and public governance.

The growing reliance on automated decision-making systems has intensified debates concerning legal responsibility for damages caused by artificial intelligence. Unlike traditional tools, AI systems may operate with a high degree of autonomy, learn from data, and produce outcomes that are not entirely predictable by their creators or users. This challenges classical legal doctrines based on human fault and direct causation, raising the fundamental question: who should be held liable when artificial intelligence causes harm?

In many legal systems, existing liability frameworks were developed in an era when human behavior was the primary source of legal responsibility. Consequently, these frameworks often fail to adequately address the specific risks posed by artificial intelligence technologies. Issues such as the attribution of responsibility, the distribution of liability among multiple actors, and the standard of care applicable to AI-related activities remain insufficiently regulated. This legal uncertainty may hinder technological innovation while simultaneously weakening the protection of individuals and society.

The purpose of this article is to analyze the problem of legal liability in the context of artificial intelligence and automated decision-making. The study aims to identify the main subjects of liability, examine current legal approaches, and assess their effectiveness. By highlighting existing regulatory gaps and challenges, the article seeks to contribute to the development of a more coherent and balanced legal framework for artificial intelligence liability.

This study analyzes legal liability in the use of artificial intelligence (AI) using comparative legal analysis and formal-legal methods. Comparative legal analysis examines how different jurisdictions, particularly the European Union and the United States, regulate AI liability. This method allows identification of differences and similarities in assigning responsibility for harm caused by AI systems, including automated decision-making tools used in healthcare, finance, and public administration.[1]

The formal-legal method involves studying statutory regulations, judicial decisions, and international guidelines to understand the principles and norms governing AI liability. For example, it assesses how legal responsibility is distributed among developers, operators, and

[1] European Commission. (2021). Proposal for a Regulation on Artificial Intelligence (AI Act). Brussels: European Union.

users, and considers scenarios in which AI acts autonomously, creating challenges for traditional concepts of fault and causation.[2]

By combining these two methods, the study provides a comprehensive understanding of the key actors responsible for AI systems and highlights potential gaps in current legal frameworks. This approach ensures that both theoretical principles and practical regulatory applications are considered, providing a solid basis for analyzing AI liability issues.

The analysis shows that legal liability for harm caused by artificial intelligence (AI) is a complex and evolving issue. One key finding is that responsibility often depends on the level of autonomy of the AI system. In highly automated systems, traditional liability principles, which assume human control, may not adequately address the damage caused by autonomous decisions.[3] For example, in healthcare, AI diagnostic tools may produce incorrect recommendations, raising the question of whether the developer, the hospital, or the operator should be held liable for patient harm.

Another important result is the regulatory gap in current national and international legislation. In many jurisdictions, there are no specific rules assigning liability when AI acts unpredictably or independently. This creates legal uncertainty for businesses and individuals relying on AI technologies. Comparative analysis indicates that while the European Union's proposed AI Act introduces some frameworks for accountability, most countries, including the United States, rely on existing civil liability laws, which may not fully cover AI-related incidents.[4]

Overall, the results highlight the urgent need for clear and coherent legal frameworks that define the roles and responsibilities of developers, operators, and users of AI systems. Without such frameworks, effective protection of rights and enforcement of legal accountability remain challenging.

The findings from the results indicate that current legal frameworks struggle to adequately address the complexity of liability in the context of artificial intelligence (AI). One of the central challenges is determining which actor should be held responsible when AI systems operate autonomously. Developers, operators, and users may all play a role in

[2] Calo, R. (2016). Robotics and the Lessons of Cyberlaw. California Law Review, 103(3), 513–563.
[3] Gasser, U., & Almeida, V. (2017). A Layered Model for AI Governance. IEEE Internet Computing, 21(6), 58–62.
[4] European Parliamentary Research Service. (2020). Liability for Artificial Intelligence and Robotics. Brussels: European Union.

producing harmful outcomes, but traditional liability models often assume direct human control, which is not always present in modern AI applications.[5]

Moreover, the rapid advancement of AI technologies adds further uncertainty. AI systems are increasingly capable of learning and making decisions independently, which can lead to unpredictable outcomes. For instance, in financial markets, AI trading algorithms may trigger significant losses due to unforeseen market behavior, leaving regulators and legal systems uncertain about who bears responsibility. Similarly, autonomous vehicles raise questions about liability in accidents when decisions are made by algorithms rather than human drivers.

Comparative analysis suggests that while the European Union has begun to establish frameworks for AI accountability, most national legal systems remain reactive rather than proactive. This regulatory lag may hinder innovation while simultaneously exposing individuals and organizations to risks. Therefore, there is a pressing need to develop legal principles specifically tailored to AI, such as defining standards of care for AI developers, establishing mandatory insurance schemes, and creating clear guidelines for human oversight in automated decision-making.

Ultimately, effective regulation of AI liability requires a combination of legal innovation, technological understanding, and international coordination to ensure that accountability mechanisms are robust, predictable, and fair. This approach would provide both legal certainty for AI developers and protection for affected individuals.

The study demonstrates that legal liability in the context of artificial intelligence (AI) presents a complex challenge for modern legal systems. The results indicate that traditional liability models, based on direct human control and fault, are often insufficient when AI systems operate autonomously or produce unpredictable outcomes. Developers, operators, and users all play critical roles in ensuring responsible AI deployment, yet current legal frameworks do not clearly delineate their responsibilities.

Furthermore, the research highlights the significant regulatory gaps present in many jurisdictions, which can create legal uncertainty for individuals and organizations relying on AI technologies. Comparative analysis shows that while some regions, such as the European Union, have started to introduce accountability frameworks, most countries still rely on general civil and administrative laws that are not fully adapted to the challenges posed by AI.

[5] Cath, C. (2018). Governing Artificial Intelligence: Ethical, Legal and Technical Opportunities and Challenges. Philosophical Transactions of the Royal Society A, 376(2133), 20180080.

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To address these issues, the article emphasizes the need for clear, coherent, and internationally coordinated legal standards that define liability for AI systems. Such measures should include standards of care for developers, guidelines for operators, and mechanisms for monitoring automated decision-making. By implementing these recommendations, legal systems can better protect individual rights while supporting innovation in AI technologies.

In conclusion, establishing effective legal frameworks for AI liability is not only a legal necessity but also a key factor in fostering public trust and sustainable technological development.

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