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**CRIMINAL LAW ASPECTS OF ARTIFICIAL INTELLIGENCE TECHNOLOGY
WITH PARTICULAR EMPHASIS ON LEGAL QUALIFICATION,
ATTRIBUTION OF PERPETRATION, AND LIABILITY OF THE CREATOR**

SUMMARY

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The aim of this doctoral dissertation is a comprehensive analysis of the criminal law aspects related to technologies based on artificial intelligence (AI). Particular emphasis has been placed on the issues of legal qualification of actions taken by AI systems, attribution of perpetration to them, and identification of the liability of entities involved in the process of creating and implementing such technologies. The study focuses on three key problem areas: the criminal law qualification of acts carried out by AI systems, determining the rules for attributing perpetration to them, and establishing the scope of liability of the creators of this type of technological solutions. The main goal of the work is to identify gaps in the existing legal regulations and to formulate proposals for legislative changes that will adequately adapt the law to the dynamically developing field of artificial intelligence technologies.

In the era of dynamic technological development, artificial intelligence is becoming increasingly present in various spheres of everyday and professional life - from autonomous vehicles, through recruitment systems, to disease diagnosis and treatment. Along with the advantages of these technologies, new legal challenges emerge, requiring appropriate regulations. A significant issue is the question of accountability for AI actions, especially in a legal context. This dissertation attempts to answer questions regarding the boundaries of liability for AI creators and users, as well as the regulations necessary to ensure safety and justice in the use of these technologies.

The work is based on an interdisciplinary approach, combining knowledge from the fields of law, technology, ethics, and sociology. The study includes an analysis of national and international regulations concerning AI, as well as case studies of various applications of this technology. An in-depth analysis of literature, legal regulations, and interviews with experts in law, technology, and ethics were conducted. Key situations, such as accidents involving autonomous vehicles, the use of AI in medicine, cybersecurity, recruitment systems, and virtual assistants, were analyzed in detail from a legal perspective.

The results of the analyses indicate an urgent need to introduce new legal regulations governing the area of artificial intelligence. The dissertation identifies various types of AI actions and analyzes their legal qualification in the context of criminal law, recognizing the need for a precise definition of which AI actions may be considered criminal offenses and the criteria for assessing such actions. Legal frameworks have been developed for attributing perpetration to actions taken by AI systems, taking into account both direct and indirect perpetration cases. Various models of criminal liability have been analyzed, with a particular

emphasis on strict liability and liability for non-compliance with the proposed regulations, while proposing new approaches to attributing liability that take into account the specifics of autonomous system actions.

The research also includes considerations of the criminal liability of artificial intelligence creators. The extent to which creators may be held liable for the consequences of actions resulting from their technologies is analyzed. The introduction of legislative changes suggests the need for better regulation of AI creator liability through the introduction of clear and precise regulations that keep pace with technological developments.

During the study, an extensive set of cases illustrating the practical applications of artificial intelligence and the resulting legal challenges was analyzed. These included, among others: accidents involving autonomous vehicles, the use of AI in medicine (diagnosis and therapy), cyberattacks using AI, AI-based recruitment systems, the use of virtual assistants, the application of AI in the justice system, and examples of information manipulation using AI. An in-depth analysis of these cases revealed the potential legal and ethical consequences associated with the implementation of these technologies. It also highlighted the urgent need to introduce appropriate legal regulations that will guarantee safety, fairness, and equality in the use of artificial intelligence-based solutions.

The work demonstrates the urgent need to introduce new legal regulations concerning artificial intelligence, as the current regulations are insufficient in the face of the challenges arising from the dynamic development of these technologies. The conclusions of the work include the necessity of introducing clear and precise legal regulations that take into account the specifics of autonomous AI system actions, the liability of creators and users, as well as the involvement of the AI systems themselves. The importance of ethics in the creation and implementation of AI, as well as the need to introduce ethical principles regulating the actions of creators and users, have also been emphasized, so that these technologies are developed and utilized in a responsible manner. The work also points to the necessity of international cooperation in order to establish global standards and principles that will regulate the development and application of AI.

The doctoral dissertation presents a comprehensive analysis of the criminal law aspects of artificial intelligence technology. The research results indicate an urgent need for new regulations in the field of criminal law, adapted to rapidly changing technologies. The

importance of ethics, accountability, and international cooperation in the area of legal regulations concerning AI has been emphasized. This work constitutes a significant contribution to the development of knowledge about the criminal law aspects of artificial intelligence and may serve as a basis for further research and legislative actions in this field.

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