Summary:

The aim of this study, titled "Criminal Aspects of Artificial Intelligence" is to identify problems resulting from the rapid technological development of artificial intelligence systems (hereinafter AI), which is not sufficiently linked to the pace of development of adequate criminal law regulations. The discussion contained in this work aims to present issues related, primarily, to criminal liability for acts committed using AI systems, based on selected areas of social and economic life, taking into account the degree of autonomy of their operation. The discussion presented in this work aims to identify challenges for future criminal law regulations, while simultaneously filling a perceived legal and research gap in the area of criminal law aspects of artificial intelligence.

To achieve this goal, the study aims to first introduce the subject of artificial intelligence, indicating its origins; provide a doctrinal and legal explanation of the concept of AI; and demonstrate specific areas of AI use, as well as the opportunities and threats associated with its application.

To relate these discussions to the criminal law aspects of AI, the study then provides an explanation and concept of human oversight of the functioning of artificial intelligence; Issues related to the subject of a prohibited act committed using artificial intelligence, and in this context, considerations regarding the potential legal personality of AI systems. In this area of discussion, selected criminal law issues in light of the functioning of artificial intelligence were also analyzed, such as: the issue of attribution of effect; the subjective elements of a prohibited act committed using artificial intelligence; principal forms of committing an offence and non-perpetration forms; and circumstances excluding guilt.

Importantly, the work retrospectively reviewed the legal regulations in force in Poland and worldwide in relation to selected, in the author's opinion, most representative areas of AI systems use. Given the title of the study, these areas of AI use were analyzed in the context of criminal liability for prohibited acts committed using artificial intelligence.

Based on these considerations, the wording of specific criminal provisions was proposed, consistent with both the adopted EU approach to the issue of artificial intelligence and the principles of the Penal Code in force in Poland.

The basis for the analysis conducted in this work were applicable Polish and foreign legal regulations, a very extensive Polish and foreign literature on the subject, numerous case law publications, and netographic sources. The frequently used literature and writings were independently translated by the author.

The study was primarily based on a dogmatic-legal approach, which allowed for the interpretation of applicable legal regulations. Due to the need to compare EU regulations with Polish regulations, the study also employed a comparative-legal approach. The study also relies on a historical-legal approach to explain and prove the ancient origins of artificial intelligence and its gradual evolution.

The *de lege lata* conclusions of the analysis indicate that, under the current legal framework, although acts committed using artificial intelligence systems may be subject to criminalization under the analyzed Polish provisions, this protection is insufficient. Therefore, this paper advocates for a cautious but decisive legislative approach aimed at making the criminal law framework more flexible regarding liability for events generated by artificial intelligence. The *de lege ferenda* proposals presented in this paper aim to ensure greater systemic coherence and effective protection of individual rights, while maintaining the fundamental principles of criminal law.