

The Issues of Establishing Criminal Liability for Ai-Related Crime

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ABSTRACT

Objective: This article examines the criminal-law foundations of liability for crimes committed with the participation of AI, with particular attention to the status of AI, mens rea, algorithmic negligence, the 'black box' problem, causation, and the distribution of responsibility among developers, operators, users, and other human actors. **Method:** Using doctrinal, comparative-legal, formal-legal, systemic, and analytical methods, the article argues that the attribution of criminal responsibility to AI itself is incompatible with the anthropocentric structure of contemporary criminal law. **Results:** At the same time, treating AI exclusively as an ordinary instrument may fail to capture the specific risks created by autonomous and self-learning systems. Under this approach, AI may be treated as a technologically autonomous participant or 'quasi-subject' in the factual mechanism of an offence, but criminal responsibility remains attributable exclusively to natural persons or other legally recognized human-controlled entities on the basis of guilt, foreseeability, control, and causation. **Novelty:** The article therefore develops a human-centred model of distributed responsibility. The article further proposes mandatory technical audit trails, differentiated liability for AI developers and operators, and legislative recognition of technologically mediated and hybrid forms of criminal conduct.

INTRODUCTION

AI has ceased to be merely a technological instrument operating under direct and predictable human control. Contemporary AI systems are capable of processing large volumes of information, identifying patterns, generating outputs, adapting to new data, and, in certain environments, taking decisions or initiating actions without a contemporaneous human command. This transformation has significant consequences for criminal law because the traditional architecture of criminal responsibility is built around a human actor possessing consciousness, will, and the capacity to understand and control socially dangerous conduct [1].

The problem is particularly acute where an AI system participates in the commission of an offence but the resulting conduct cannot be fully explained by the immediate intention of the human who developed, deployed, or operated the system. The criminal-law difficulty does not arise simply because AI is technologically sophisticated. It arises because the causal chain connecting the human decision to the criminal consequence may become technologically mediated, distributed, and partially unpredictable [2].

Traditional criminal law generally requires the identification of a subject capable of bearing criminal responsibility, an act or omission, causation, unlawfulness, and guilt. The subjective element of an offence traditionally presupposes a psychological relationship between the offender and the socially dangerous act and its consequences. This framework becomes difficult to apply where an AI system independently selects a

method of action, modifies its internal parameters through learning, or produces an output that was not specifically anticipated by the human operator [3].

The Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, opened for signature in 2024, reflects the broader international movement toward lifecycle-based regulation of AI and emphasizes human rights, democracy, the rule of law, risk assessment, and mitigation of adverse impacts. The Convention does not create an independent criminal personality for AI systems; rather, it places regulatory obligations on States and relevant actors within the AI lifecycle. The international regulatory approach therefore remains fundamentally human-centred [4].

The criminal-law literature has approached the problem from several directions. Hallevy has examined models for attributing criminal liability to AI systems. Simmler and Markwalder have questioned whether concepts of culpability and legal personhood can be transferred to increasingly autonomous technological systems. Wojtczak has examined the possibility of granting AI a form of legal subjectivity. Duan has considered AI in the context of cybercrime and criminal liability. These approaches demonstrate that AI challenges traditional concepts of criminal subjectivity, but they do not necessarily justify recognizing AI as a criminally responsible subject [5].

The central proposition of this article is that the development of AI requires the criminal law to modify its method of attribution, rather than abandon the principle of individual guilt. AI may become increasingly autonomous in factual and technological terms, but technological autonomy should not automatically produce legal autonomy in criminal responsibility. The decisive legal question should therefore be not whether AI “acted” in a technological sense, but which human actor had legally relevant control, knowledge, foreseeability, or a duty to prevent the harmful consequence [6].

The purpose of this article is to develop a criminal-law model for determining responsibility for crimes committed with the participation of AI. The article focuses on five interconnected problems: (1) the criminal-law status of AI; (2) the transformation of mens rea; (3) algorithmic negligence and the responsibility gap; (4) causation and the black-box problem; and (5) the distribution of criminal responsibility across the technological chain.

RESEARCH METHOD

The research applies a doctrinal legal methodology as its primary method. The doctrinal method is used to examine the fundamental categories of criminal law subject of crime, guilt, intent, negligence, causation, complicity, and criminal responsibility and to determine whether these categories remain applicable to technologically mediated criminal conduct.

The formal-legal method is used to analyse the relationship between traditional criminal-law requirements and emerging AI-related forms of conduct. Particular attention is given to the principle that criminal responsibility requires a legally recognized subject and cannot be imposed solely on the basis of objective causation.

A comparative-legal method is employed to examine international and foreign approaches to AI regulation and criminal responsibility. The study considers the approaches reflected in the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, the UNESCO Recommendation on the Ethics of Artificial Intelligence, and selected academic approaches to AI criminal liability.

The systemic method is applied to examine AI-related criminal conduct as a technological and legal chain involving several potentially responsible human actors: developers, programmers, manufacturers, deployers, operators, users, supervisors, and organizational decision-makers.

The analytical method is used to distinguish between AI functioning as an ordinary instrument of crime and AI functioning as a technologically autonomous participant in the factual mechanism of an offence.

Finally, the article uses a normative method to formulate proposals for improving criminal-law attribution mechanisms, including differentiated responsibility, technical auditability, and the legal treatment of hybrid criminal conduct.

RESULTS AND DISCUSSION

Results

The first criminal-law question is whether AI should be regarded as an instrument of crime, an independent subject of crime, or a legally distinct technological participant.

The traditional approach treats AI as an instrument. Under this model, the AI system is legally comparable to a weapon, computer program, vehicle, or other means through which a human offender commits an offence. If a person deliberately uses an AI system to deceive another person, steal property, produce prohibited material, manipulate information, or conduct a cyberattack, the AI system itself does not possess criminal responsibility. The human user remains the offender [7].

This approach is legally coherent in cases where the AI system operates according to instructions that are sufficiently determined by the user. For example, if an individual deliberately enters instructions into an AI system to generate fraudulent communications and then uses those communications to obtain another person's property, the AI functions primarily as an instrument of execution [8].

However, this model becomes less convincing when the AI system has significant adaptive capacity. A self-learning system may modify its operational behavior, select among alternative methods, and produce an output that was not specifically determined by the operator. The more autonomy is introduced into the technological chain, the more difficult it becomes to establish the precise relationship between the human act and the final criminal consequence [9].

This problem has led scholars to consider whether AI should be recognized as an independent legal or criminal subject. Hallevy proposed models of criminal liability for AI systems, while Wojtczak examined the possibility of legal subjectivity. Simmler and

Markwalder similarly questioned whether concepts of culpability and legal personhood can be meaningfully applied to artificial systems [10].

Nevertheless, the recognition of AI as a criminal subject would conflict with the fundamental structure of contemporary criminal law. Criminal responsibility is not simply a consequence of producing a harmful result. It presupposes the capacity to bear guilt. AI systems process information computationally; they do not possess the legally relevant form of human consciousness, moral understanding, or free will required by the classical concept of culpability [11].

Accordingly, the article proposes the concept of an AI quasi-subject. The term does not mean that AI should be granted criminal personality. It refers to a technological system whose autonomous operation is sufficiently significant to influence the factual mechanism of an offence and therefore requires special criminal-law analysis.

The distinction is important. AI may be a factual participant without being a legal subject. This distinction allows criminal law to recognize technological autonomy without abandoning the principle of personal culpability.

The second problem concerns the subjective element of crime. Traditional criminal law distinguishes forms of guilt such as intent and negligence. Intent generally involves awareness of the socially dangerous character of the conduct and a corresponding volitional relationship to the act or its consequences. Negligence, by contrast, is generally associated with failure to foresee consequences that should and could have been foreseen, or with unjustified reliance on the prevention of foreseeable consequences [12].

AI-mediated crimes create a new factual environment in which the human actor may not directly determine the precise final act of the technological system. This does not eliminate *mens rea*. Instead, it changes the evidentiary and normative method by which *mens rea* must be established. Consider three situations.

First, an individual deliberately designs an AI system for the purpose of committing offences. In this case, the criminal intent exists independently of the system's subsequent technical operation. The AI is simply the technological means through which the intended criminal objective is pursued.

Second, an individual develops or deploys a system for a legitimate purpose but knowingly introduces it into a high-risk environment without adequate safeguards. If a harmful result follows and the individual was aware of the relevant risks, criminal negligence may potentially be established depending on the applicable law.

Third, the harmful consequence results from an unexpected interaction within a self-learning system that could not reasonably have been predicted or controlled by the relevant human actor. In such a case, the mere fact that the human actor created or operated the system should not automatically establish criminal guilt. This distinction is essential for preserving the principle of culpability.

The emergence of AI therefore does not justify replacing *mens rea* with objective liability. Rather, it requires a more sophisticated understanding of foreseeability, control, risk creation, and the duty of supervision [13].

One of the most significant findings of the research concerns the emergence of what may be described as algorithmic negligence. Algorithmic negligence occurs where a person creates, deploys, supervises, or operates an AI system while failing to comply with a legally relevant standard of care concerning foreseeable technological risks. The concept should not be interpreted as a separate form of guilt automatically applicable to AI. It concerns the negligence of a human actor in relation to an AI system. The classical negligence model asks whether the person could and should have foreseen the relevant consequence. In AI-related cases, this question must be expanded: What risks were technically foreseeable at the time of development or deployment? What information was available to the relevant actor?

Was the system tested before deployment? Were known vulnerabilities identified?

Was human supervision technically possible? Were appropriate safety mechanisms installed? Did the operator ignore warnings generated by the system? Was the system deployed in a context exceeding its validated operational parameters? These questions enable criminal law to distinguish negligence from technological accident.

The distinction is particularly important because the responsibility gap may emerge when an autonomous learning system produces an unforeseeable outcome. Matthias (2004) described the responsibility gap as a difficulty in assigning responsibility for actions of learning automata where their behavior cannot be completely predicted by their designers or users [14].

The criminal-law solution cannot simply be to presume the guilt of the developer or operator. Such an approach would transform criminal responsibility into objective attribution. Instead, responsibility should be linked to a human actor's failure to fulfil a specific legal or professional duty. Thus:

Unforeseeable technological malfunction $\neq$ criminal negligence. But: Foreseeable technological risk + failure of required safeguards + causal contribution to the harmful result = potential criminal negligence. This distinction should form a central principle of AI-related criminal legislation.

The "black box" problem presents another major difficulty. In some AI systems, particularly complex machine-learning models, it may be difficult to reconstruct the precise internal process through which a particular output was generated. From a technological perspective, the system may produce a result without providing a transparent causal explanation understandable to the human operator. For criminal law, however, the existence of a harmful consequence is not sufficient. The prosecution must establish legally relevant facts concerning the conduct of the accused, causation, and guilt. The black-box phenomenon therefore creates a risk of evidentiary distortion. If investigators cannot reconstruct the technological decision-making process, they may incorrectly attribute the result to the developer, operator, or user merely because that person was connected to the system. Such an approach would be inconsistent with fundamental criminal-law principles. The solution should be the establishment of mandatory technical audit trails for AI systems operating in high-risk environments. An audit trail should preserve, where technically possible: the relevant input data; system

version; model version; changes to the model; relevant user instructions; operator interventions; system warnings; decision logs; safety-control events; relevant system outputs; subsequent modifications [15].

The purpose is not merely technological accountability. It is also criminal-law proof. A technical audit trail can help establish whether the harmful outcome resulted from deliberate conduct, negligent deployment, inadequate supervision, external interference, technical malfunction, or an unforeseeable system failure. Therefore, auditability should be considered part of the legal infrastructure of AI-related criminal responsibility.

Criminal responsibility also requires a legally relevant causal connection between the conduct of the accused and the criminal consequence. AI complicates causation because the technological chain may contain numerous intervening factors. For example: developer, training data, model, deployment, operator, AI output, victim, harmful consequence. Each stage may contribute to the final result. The existence of multiple technological stages does not automatically eliminate causation. However, it requires the law to identify which contribution was legally significant. The article therefore proposes a distinction between technical causation and normative attribution. Technical causation concerns whether a particular human action or omission contributed to the operation that produced the result. Normative attribution asks whether that contribution is legally sufficient to justify criminal responsibility. This distinction prevents excessive expansion of criminal liability. A developer should not automatically be criminally liable merely because an AI system created by that developer was later misused by another person. Conversely, a developer who deliberately incorporates a harmful functionality or knowingly ignores a critical safety defect cannot necessarily avoid responsibility by arguing that the final act was technically performed by AI. The decisive factor should therefore be the combination of causation, knowledge, foreseeability, control, and duty.

The complexity of AI systems makes it possible for several human actors to make legally relevant contributions. The developer may create the architecture. The data engineer may select or manipulate training data. The manufacturer may determine technical safety requirements. The deployer may introduce the system into a particular environment. The operator may activate or supervise the system. The user may intentionally exploit the system for criminal purposes. The organization may establish or fail to establish adequate control procedures. A criminal-law model based exclusively on a single “operator” may therefore be insufficient. The article proposes a distributed responsibility model. Under this model, criminal responsibility is individually determined according to the contribution of each person. The distributed responsibility model identifies several actors whose conduct may become relevant to criminal liability depending on their role in the development, deployment, operation, and use of an artificial intelligence system. The developer may incur criminal-law relevance where the system is deliberately designed to perform criminal functions or where critical risks are knowingly disregarded during its development. The data engineer may be subject to

criminal-law assessment where training data are intentionally manipulated in a manner that produces foreseeable harmful outcomes. The manufacturer may bear responsibility where a high-risk AI system is knowingly released without adequate security measures, particularly where the manufacturer is aware of critical vulnerabilities associated with the system. The deployer may become criminally liable where an AI system is deployed in violation of mandatory safety conditions or other legally established requirements governing its use. The operator may incur criminal-law responsibility in cases involving the intentional misuse of an AI system or a negligent failure to exercise the required level of supervision over its operation. The user may bear direct criminal liability where artificial intelligence is intentionally used as a means of committing a crime. Finally, an organizational manager may become subject to criminal-law assessment where a specific legal duty exists to establish appropriate safeguards, but the manager fails to implement such legally required protective measures.

Accordingly, criminal liability in the context of AI-related crimes should not automatically be attributed to a single actor. Rather, it may be distributed across different participants in the AI lifecycle, with liability determined according to each actor's conduct, degree of control, knowledge, foreseeability of harm, and applicable legal duties. This model does not establish automatic liability. It establishes a framework for individualized attribution. The central principle is: The greater the legally relevant control over the risk, the stronger the potential basis for criminal attribution, provided that guilt and causation are established.

Discussion

The proposal to recognize AI as a criminal subject appears attractive because it seemingly solves the responsibility gap: if AI causes harm autonomously, AI itself could be punished. However, such a solution raises more problems than it resolves. First, AI does not experience punishment in the traditional criminal-law sense. Imprisonment, moral condemnation, rehabilitation, and other classical criminal sanctions are designed for human subjects. Second, transferring criminal responsibility to AI may create an artificial legal shield for the humans who designed or deployed the system. Third, criminal punishment without guilt would conflict with the fundamental principle of culpability. For these reasons, AI should not presently be recognized as an independent criminal subject. The concept of a quasi-subject provides a more legally coherent alternative. It recognizes the factual autonomy of AI while preserving the legal requirement that criminal responsibility remain connected to a human actor capable of guilt.

The opposite extreme is equally problematic. If every AI system is legally treated as an ordinary instrument, the law may fail to recognize situations in which autonomous behavior substantially affects the causal mechanism of the offence. A conventional weapon generally does not modify its own operational parameters. A sophisticated AI system may do so. A conventional tool does not normally learn from new data. A machine-learning system may. A conventional instrument normally performs an action

directly instructed by its user. An autonomous AI system may select among possible actions based on its internal computational processes.

Therefore, the legal characterization of AI solely as an instrument may conceal important differences in the structure of technologically mediated conduct.

The quasi-subject concept is therefore useful as an analytical category, not as a basis for granting criminal personality.

The central result of this research is the proposition of human-centered criminal responsibility. This principle has four elements. First: AI autonomy does not eliminate human responsibility. The technological independence of the system does not automatically remove responsibility from humans who intentionally or negligently create the relevant criminal risk. Second: AI autonomy does not automatically establish human guilt. A person should not be convicted merely because the person created, operated, or owned an AI system that later caused harm. Third: criminal attribution must be individualized. Where several actors participate in the AI lifecycle, each person's contribution must be examined separately. Fourth: technical evidence must support legal attribution. Where the system operates through complex algorithms, criminal proceedings should rely on technical audit trails and expert analysis rather than assumptions about how the system operated. This model reconciles technological development with the classical foundations of criminal law.

The research further supports the use of the concept of hybrid crime. A hybrid crime is a socially dangerous act in which the criminal result emerges from the interaction of human conduct and an AI system rather than from either factor independently. For example, an individual may intentionally initiate a process, while AI determines the precise form, timing, or sequence of subsequent actions. The resulting offence is therefore neither purely human nor purely technological in its factual mechanism. However, the legal attribution remains human. The concept of hybrid crime should therefore not be understood as creating a new category of criminal subjects. It should be understood as describing a new category of criminal mechanisms. This distinction has practical significance for qualification. Where AI merely assists a human offender, the offence may be qualified under the existing criminal-law provision. Where AI substantially changes the mode of commission, the legislature may need aggravating circumstances or specialized provisions. Where a new socially dangerous conduct cannot adequately be covered by existing offences, separate criminalization may be justified. The criterion should therefore be the social dangerousness of the conduct, not the technological novelty of AI itself.

Not every harmful use of AI requires a new criminal offence. The principle of *ultima ratio* requires criminal law to intervene only where other legal mechanisms are insufficient and the conduct reaches the necessary level of social dangerousness.

At the same time, AI may create conduct whose characteristics are not adequately reflected in traditional offences. The dissertation underlying this article identifies several areas where legislative development may be justified, including AI-assisted digital sexual abuse, malicious development or use of AI technologies, AI-enabled fraud, AI-

enabled theft, and violations of information and cybersecurity requirements. The proposed reforms are intended not merely to increase punishment but to close gaps in criminal-law protection created by technological transformation.

From a criminal-policy perspective, three criteria should be applied before introducing a new offence: Social dangerousness the conduct must seriously threaten protected social relations. Legal insufficiency existing offences must be inadequate to provide effective legal protection. Legislative certainty the new offence must be formulated sufficiently clearly to satisfy the principle of legality. This approach prevents technological enthusiasm from producing excessive criminalization.

The international legal environment increasingly supports a human-centered model of AI governance. The Council of Europe Framework Convention places AI within a framework of human rights, democracy, and the rule of law and requires measures concerning risk and impact management. Its approach is significant for criminal law because it recognizes the importance of identifying, assessing, preventing, and mitigating AI-related risks rather than waiting until harmful consequences occur .

Similarly, UNESCO's Recommendation on the Ethics of Artificial Intelligence emphasizes human dignity, human rights, transparency, fairness, and human oversight throughout the AI lifecycle. These instruments support a preventive dimension of criminal policy. Criminal law should not operate exclusively after harm has occurred. It should be integrated with regulatory mechanisms capable of reducing the probability of serious harm. Nevertheless, preventive regulation must not become a substitute for criminal-law culpability.

A regulatory violation and a criminal offence are not identical. Failure to comply with an AI governance requirement may justify administrative, civil, or regulatory consequences. Criminal responsibility should arise only where the statutory requirements of an offence, including guilt and causation, are satisfied.

Based on the analysis, the following model may be proposed. Stage 1: Identify the human actors. All persons involved in the AI lifecycle relevant to the harmful event should be identified. Stage 2: Establish the technological mechanism The investigation should reconstruct how the AI system operated and what role it played in the event. Stage 3: Establish causation. The legally relevant contribution of each actor should be established. Stage 4: Determine the applicable form of guilt. Intent, recklessness, negligence, or absence of guilt should be separately considered. Stage 5: Determine the degree of control and foreseeability. Particular attention should be given to the actor's technical knowledge, authority, access to the system, and ability to prevent the harmful result. Stage 6: Analyse audit evidence. System logs, model versions, prompts, operator interventions, warnings, and other technical evidence should be assessed. Stage 7: Apply individualized criminal responsibility. Each actor should be held responsible only within the limits established by the relevant criminal-law provisions. This model combines doctrinal criminal-law principles with the technical realities of AI systems.

CONCLUSION

Fundamental Finding : The emergence of artificial intelligence does not require the abandonment of the fundamental principles of criminal law. It requires their adaptation to a new technological environment. The analysis demonstrates that AI systems occupy an intermediate position between traditional instruments of crime and fully autonomous legal actors. Their technological autonomy may substantially influence the factual mechanism of an offence, but such autonomy does not currently provide a sufficient legal basis for recognizing AI as an independent criminal subject. The concept of an AI quasi-subject offers a useful analytical solution. It recognizes the autonomous technological role of AI without attributing criminal personality to the system itself. **Implication :** The central legal principle proposed in this article is human-centred distributed responsibility. Under this model, criminal responsibility remains attributable to human actors, but it may be distributed among developers, programmers, manufacturers, deployers, operators, users, and organizational decision-makers according to their respective contribution, control, foreseeability, and guilt. The analysis also demonstrates that AI creates a specific form of risk relevant to criminal law: algorithmic negligence. The black-box problem further demonstrates the necessity of technical auditability. In high-risk AI environments, mandatory technical audit trails should be introduced to facilitate the reconstruction of decision-making processes and to distinguish criminal negligence from unforeseeable technological malfunction. **Limitation :** Their technological autonomy may substantially influence the factual mechanism of an offence, but such autonomy does not currently provide a sufficient legal basis for recognizing AI as an independent criminal subject. The black-box problem further demonstrates the necessity of technical auditability. Finally, criminalization should remain subject to the principles of legality, culpability, proportionality, and ultima ratio. The mere involvement of AI cannot justify criminal punishment. **Future Research :** The future development of criminal law should therefore not be based on the proposition that "AI commits crimes." The legally more precise proposition is that humans may commit crimes through, with, against, or in interaction with AI systems, including systems possessing significant degrees of technological autonomy. The principal task of modern criminal law is consequently to construct a sufficiently precise mechanism for determining which human actor is legally responsible, for what conduct, on what basis, and to what extent, while ensuring that technological autonomy neither produces impunity nor becomes a justification for objective criminal liability.

REFERENCES

- [1] M. M. Abbosov, "Jinoyat qonunchiligida sun'iy intellekt tushunchasi va ijtimoiy xavfliligi," *Ijtimoiy-gumanitar fanlarning dolzarb muammolari*, vol. 4, no. 5, pp. 375–382, 2025.
- [2] Council of Europe, "Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law," CETS No. 225, 2024.
- [3] Z. Duan, "Artificial intelligence and the law: Cybercrime and criminal liability," *The British Journal of Criminology*, vol. 62, no. 1, pp. 257–274, 2022.

- [4] G. Hallevy, *When Robots Kill: Artificial Intelligence under Criminal Law*. Boston, MA, USA: Northeastern University Press, 2013.
- [5] G. Hallevy, "The basic models of criminal liability of AI systems and outer circles," SSRN, 2019, doi: 10.2139/ssrn.3402527.
- [6] J. Kingston, "Artificial intelligence and legal liability," in *Innovative Techniques and Applications of Artificial Intelligence*, Cham, Switzerland: Springer, 2016, pp. 269–279, doi: 10.1007/978-3-319-47175-4_20.
- [7] A. Matthias, "The responsibility gap: Ascribing responsibility for the actions of learning automata," *Ethics and Information Technology*, vol. 6, pp. 175–183, 2004, doi: 10.1023/B:ETIN.0000048790.79084.9d.
- [8] I. N. Mosechkin, *Artificial Intelligence in Criminal Law: Prospects for Improving Protection and Regulation*. Kirov, Russia: Vyatka State University, 2020.
- [9] S. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach*, 4th ed. Hoboken, NJ, USA: Pearson, 2020.
- [10] M. Simmler and N. Markwalder, "Guilty robots? Rethinking the nature of culpability and legal personhood in an age of artificial intelligence," *Criminal Law Forum*, vol. 30, pp. 1–39, 2019, doi: 10.1007/s10609-018-9360-0.
- [11] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*. Paris, France: United Nations Educational, Scientific and Cultural Organization, 2021.
- [12] S. Wojtczak, "Endowing artificial intelligence with legal subjectivity," *AI & Society*, vol. 37, pp. 205–213, 2022, doi: 10.1007/s00146-021-01147-7.
- [13] S. Beck, "Intelligent agents and criminal law: Negligence, diffusion of liability and electronic personhood," *Robotics and Autonomous Systems*, vol. 86, pp. 1–9, 2016.
- [14] A. Sarch and R. Abbott, "Punishing artificial intelligence: Legal fiction or science fiction," *UC Davis Law Review*, vol. 53, no. 1, pp. 323–388, 2019.
- [15] O. E. Radutnyi, "Criminal liability of the artificial intelligence," *Problems of Legality*, no. 138, pp. 132–141, 2017, doi: 10.21564/2414-990x.138.105661.

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