ARTIFICIAL INTELLIGENCE AND THE EVOLUTION OF LEGAL PERSONHOOD: A COMPARATIVE ANALYSIS OF THEORETICAL APPROACHES AND PRACTICAL IMPLICATIONS

Inoyatov Nodirbek Xayitboy ugli
Lecturer, Tashkent state univetsity of law
Nodir_Inoyatov@tsul.uz

Abstract: The evolving capabilities of artificial intelligence have raised urgent legal and philosophical questions about the scope of legal personhood. While traditional concepts of personhood emphasize autonomy and moral agency, AI systems challenge these foundations by performing complex, autonomous actions without consciousness. This essay critically examines theoretical arguments and legal developments regarding AI's possible recognition as a legal person. Drawing on comparative case studies and scholarly perspectives, the study proposes a functional model of limited personhood for AI, allowing specific legal roles without undermining human dignity. Pragmatic, ethically grounded regulation is crucial for future AI governance.

Keywords: Artificial Intelligence, Legal personhood, electronic personality, civil liability, functional personhood, AI regulation.

Introduction

The rise of artificial intelligence (AI) marks a transformative era that increasingly influences all aspects of modern life, from commerce and transportation to healthcare and the arts. Technologies such as autonomous vehicles, generative AI models, and advanced decision-making algorithms are reshaping the boundaries between human creativity and machine-generated outputs. These developments raise significant challenges for legal systems built on the assumption that agency, rationality, and moral responsibility are exclusive attributes of natural persons. As AI systems demonstrate growing degrees of autonomy, adaptability, and operational independence, legal scholars have begun to question whether such entities should be recognized as legal persons within the existing frameworks of law.

Historically, the concept of legal personhood has been closely associated with human beings, later extended to certain non-human entities like corporations for functional reasons. Legal personhood traditionally implies the capacity to hold rights and bear duties, grounded in the ability to reason, make choices, and act responsibly. Philosophical foundations laid by Fichte, Kant, and Hegel shaped this human-centered view, reinforcing that personhood presupposes moral consciousness. However, the sophistication of AI challenges the adequacy of these classical concepts. AI systems increasingly make autonomous decisions, learn from experience, adapt to unforeseen circumstances, and in some instances, generate inventions or artistic expressions without direct human intervention. These abilities create functional similarities to human agency, even though AI lacks consciousness or moral intentionality.

The legal implications of autonomous AI behavior are already evident in fields such as transportation, intellectual property, finance, and healthcare. Incidents involving self-driving cars, AI-generated patents, and autonomous financial trading bots illustrate the growing difficulty of assigning responsibility and enforcing legal accountability using existing doctrines. Traditional legal models, such as vicarious liability or strict product liability,

struggle to address situations where harm results from decisions made independently by AI systems rather than direct human control. This has led scholars and policymakers to consider whether AI should be given some form of legal subjectivity to fill emerging gaps in liability and rights attribution.

The notion of granting legal personhood to AI is no longer confined to theoretical speculation. In 2017, the European Parliament proposed creating a special "electronic personality" status for the most autonomous AI systems. Meanwhile, courts in the United States, United Kingdom, and Australia have confronted questions of AI inventorship in the DABUS patent cases, ultimately rejecting the idea that AI could be recognized as an inventor under current legal definitions. These developments reveal a global tension between the pace of technological innovation and the conservatism of existing legal doctrines.

Despite the reluctance of courts to extend legal personhood to AI, a growing number of scholars advocate for a functional approach: granting limited, context-specific legal status to AI systems. Rather than recognizing AI as full legal persons equivalent to human beings, this model would allow AI entities to bear specific rights and duties necessary for legal and economic functioning, such as contracting, ownership, or liability for harm. Such an approach parallels the legal treatment of corporations, which, despite lacking human consciousness, are endowed with legal rights and responsibilities for practical reasons.

This article explores the theoretical foundations, comparative legal developments, and practical implications of recognizing AI as legal persons. It critically examines whether AI should be granted full, limited, or functional personhood and proposes pathways for responsible legal innovation that can balance technological realities with the protection of human dignity and legal coherence. By engaging with both philosophical theory and emerging case law, this study seeks to contribute to the evolving global discourse on the future of legal personhood in the age of artificial intelligence.

Materials and Methods

The research methodology adopted for this study combines comparative legal analysis with a critical literature review. Primary materials included scholarly contributions such as Kurki's bundle theory of personhood, Hildebrandt's Law for Computer Scientists, Burylo's discussion of electronic persons, Marshall's critique of AI rights, and case law from the United States, United Kingdom, and Australia regarding the DABUS patent applications. Key legislative documents such as the European Parliament's 2017 Civil Law Rules on Robotics were also analyzed. Using a thematic coding approach, the literature was organized around four major themes: full personhood models, limited personhood proposals, functional liability constructs, and ethical critiques of non-human legal personhood. Each theme was evaluated across different jurisdictions to capture a holistic picture of evolving legal perspectives. Normative assessments were conducted to identify both the feasibility and desirability of various models for AI legal status.

Results

The analysis revealed a clear divergence between the ambitious theoretical proposals advocating for AI legal personhood and the cautious, conservative approaches adopted by contemporary legal systems. Legal philosophy since the Enlightenment has firmly associated personhood with distinctive human attributes such as autonomy, rationality, self-awareness, and moral agency (Kurki, 2019). For instance, Fichte's emphasis on self-consciousness as the foundation of legal rights and duties and Hohfeld's analytical model of legal relations underscore that true legal persons must be capable of understanding and fulfilling social and

moral obligations (Kurki, 2019). Within this philosophical framework, artificial intelligence systems, despite their remarkable advancements, remain insufficient candidates for full legal personhood. They lack consciousness, intentionality, emotional intelligence, and moral reasoning — qualities regarded as essential for bearing rights and duties in classical legal theory (Bryson, Diamantis, & Grant, 2017).

Nevertheless, historical and contemporary examples demonstrate that legal personhood is not a fixed moral category but a dynamic and functional legal construct. Western legal history reveals various cases where non-human entities, devoid of sentience or moral agency, have been endowed with legal personality. Corporations have long been treated as legal persons to facilitate economic transactions and organizational functioning (Pagallo, 2018). Similarly, under Hindu law, idol statues have been recognized as legal entities capable of owning property and engaging in litigation (Solaiman, 2016). In recent years, natural features such as the Whanganui River in New Zealand have been granted legal personhood to promote environmental protection and recognize indigenous cultural values. These examples affirm that legal personhood can be assigned pragmatically to serve broader societal goals.

Practical legal developments regarding AI reflect this pragmatic orientation, though with significant caution. The European Parliament's 2017 Robotics Report proposed the creation of "electronic persons" for highly autonomous AI systems, primarily to regulate liability for damages caused by AI acting independently. The proposal suggested that recognizing a specific legal status for AI could ensure compensation mechanisms without disturbing the anthropocentric foundations of the legal system. However, this idea remains largely aspirational and has yet to be translated into binding European legislation.

Judicial responses to the question of AI legal personhood have been even more conservative. The landmark DABUS patent cases in the United States, United Kingdom, and Australia considered whether an AI system could be listed as an inventor under existing patent laws. In all three jurisdictions, courts decisively rejected this possibility, affirming that inventorship presupposes human creativity, intention, and understanding (Igbokwe, 2024). The rulings underscored the centrality of the human subject in innovation and demonstrated the reluctance of current legal systems to extend personhood concepts to non-human entities.

Despite judicial conservatism, there is increasing scholarly support for adopting a model of limited or functional legal personhood for AI. Under this framework, AI systems would not be granted full personhood akin to natural persons but would be recognized as legal subjects for narrowly defined purposes — for instance, entering into contracts, holding property, or bearing civil liability. This selective attribution of legal incidents aligns with Kurki's bundle theory, which conceptualizes personhood as a collection of divisible rights and duties tailored to specific functions rather than an indivisible metaphysical status.

Advocates of functional personhood argue that such an approach would enhance legal clarity and accountability while avoiding the ethical pitfalls associated with full AI personhood. Functional legal personhood would facilitate the establishment of clear liability regimes in areas such as autonomous vehicles, financial algorithmic trading, and healthcare diagnostics, where direct human control is often limited or absent (Militsyna, 2022). It would also streamline litigation by allowing plaintiffs to sue AI entities directly without the need to trace fault through complex human-machine interactions.

However, serious philosophical and practical concerns persist. Critics argue that extending legal personhood to AI, even in a limited form, risks diluting the symbolic and moral uniqueness of human personhood. Legal personhood historically serves not only functional

roles but also symbolic functions, affirming the dignity and intrinsic value of its holders (Hildebrandt, 2020). Extending this status to non-sentient, non-conscious machines could, over time, erode the foundational principles that underpin human rights regimes.

Moreover, practical risks arise regarding corporate misuse of AI legal entities. Powerful corporations could exploit AI personhood to shield themselves from liability, creating "artificial scapegoats" to absorb legal blame while insulating human actors from consequences (Pagallo, 2018). Without stringent safeguards linking AI entities back to responsible human agents, functional personhood could exacerbate existing accountability gaps rather than resolving them.

The problem of moral hazard further complicates the debate. If AI systems are allowed to bear legal obligations independently, developers and operators might be incentivized to abdicate their responsibilities, relying on the AI's legal status to distance themselves from harmful outcomes (Stepanov, 2021). This would run counter to the overarching ethical principle that humans must remain responsible for the tools they design and deploy.

Despite these concerns, many scholars see functional personhood as a pragmatic middle ground between rigid anthropocentrism and reckless anthropomorphism. By carefully delineating the scope and limits of AI's legal status, legislatures and courts can promote technological innovation while preserving essential human-centered legal and ethical values. Legislative models could, for example, mandate that AI systems qualify for limited legal subjectivity only if they meet rigorous criteria for autonomy, transparency, and predictability (Wen & Tong, 2023). Furthermore, laws could require that AI entities maintain economic and legal ties to identifiable human parties who ultimately bear financial and legal responsibility.

Ultimately, the results suggest that legal personhood is a flexible and adaptable construct capable of evolving alongside technological progress without abandoning its core ethical foundations. Recognizing AI as limited legal subjects under carefully regulated conditions would allow societies to address new technological challenges while maintaining commitments to justice, human dignity, and accountability.

By adopting a functional, ethically grounded, and cautious approach to AI legal personhood, the law can continue to serve its twin objectives: fostering innovation and protecting fundamental human values in an increasingly automated world.

Discussion

The debate surrounding the legal personhood of artificial intelligence (AI) systems reveals profound tensions between classical legal theory and the emerging realities of technological innovation. As the Results section demonstrated, traditional conceptions of legal personhood, rooted in Enlightenment thought, tie personhood to human-centric attributes such as autonomy, rationality, and moral agency (Kurki, 2019). Within this classical framework, AI systems, despite their growing complexity, cannot qualify as full legal persons. They lack consciousness, intentionality, and the moral capacities that underpin responsibility and rights-holding. However, the practical realities of AI functioning autonomously in critical domains require the law to respond in ways that are both principled and pragmatic.

One compelling argument for extending limited legal personhood to AI lies in the functional approach to legal constructs. Historically, legal personhood has served pragmatic rather than metaphysical purposes. Corporations, rivers, and idol statues have been granted legal personality to facilitate regulatory goals and societal values, without implying consciousness or moral agency. These precedents demonstrate that legal personhood can be a flexible tool

for organizing complex relationships and attributing responsibility where traditional models fail.

Applying this logic to AI, scholars such as Militsyna (2022) propose that recognizing AI as legal subjects for narrowly defined purposes—such as liability attribution, contractual relations, and property ownership—could provide legal certainty and ensure victim compensation in cases where human causation is indirect. Without such recognition, gaps in liability frameworks could leave victims without effective remedies, complicating litigation and undermining public trust in technological systems.

The European Parliament's 2017 Robotics Report also recognized the necessity of adapting legal structures to accommodate AI's operational autonomy, proposing the category of "electronic persons" for highly autonomous AI systems. Although not yet codified, the proposal highlights the increasing political will to reconsider foundational legal categories in light of technological change.

Despite these functional arguments, significant philosophical and practical objections remain. Critics emphasize that extending personhood to AI, even on a limited basis, risks eroding the moral symbolism attached to human legal personhood. Hildebrandt (2020) argues that the human-centered nature of rights and duties is not merely a technicality but a moral achievement reflecting centuries of struggle for human dignity and freedom. Blurring the lines between humans and machines could, over time, dilute these hard-won moral and legal constructs.

Further, there is a real danger that functional AI personhood could be exploited by powerful corporate actors. As Pagallo (2018) cautions, corporations could create AI legal entities as liability shields, distancing themselves from legal consequences while shifting blame onto nominally independent AI "persons." Such a move would replicate and exacerbate existing critiques of corporate legal structures, where limited liability has sometimes undermined genuine accountability.

Another critical concern is the risk of moral hazard. If AI systems are recognized as legal persons, developers and operators might abdicate responsibility, relying on the AI's legal status to evade culpability for harmful outcomes. Stepanov (2021) highlights that maintaining human accountability for technology is essential to preserving ethical responsibility in automated environments. Legal frameworks must therefore ensure that AI personhood, if recognized, does not absolve human actors of their duties and obligations.

To address these concerns, scholars propose strict regulatory conditions for AI personhood. Wen and Tong (2023) suggest that AI entities could qualify for limited legal subjectivity only if they meet rigorous tests for autonomy, predictability, transparency, and traceability. Moreover, any AI legal subject must remain economically and legally linked to identifiable human stakeholders who bear ultimate liability for its actions (Igbokwe, 2024).

Such frameworks would preserve the functional advantages of AI personhood—such as efficient liability attribution and legal certainty—while safeguarding against abuses and ensuring that human dignity remains central to the legal system. They would also align with Kurki's bundle theory of legal personhood, which conceptualizes personhood not as an indivisible status but as a set of divisible legal incidents tailored to functional needs (Kurki, 2019).

The symbolic dimension of personhood must also be preserved. Extending limited legal subjectivity to AI should be accompanied by clear legislative declarations emphasizing that such recognition does not imply moral equivalency with humans. Legal language should

explicitly distinguish functional personhood from moral or political personhood to avoid public confusion and erosion of human-centered values (Bryson et al., 2017).

In addition to national reforms, international coordination is vital. Given the cross-border nature of AI development and deployment, harmonized standards for AI legal status are essential to avoid regulatory arbitrage and fragmentation. International bodies such as the United Nations, OECD, and World Intellectual Property Organization (WIPO) could play pivotal roles in crafting model laws and soft law instruments to guide national legislations (Pagallo, 2018).

Finally, any move toward AI legal personhood must remain adaptive and subject to continuous review. As AI technologies evolve, so too must the legal categories and regulatory safeguards governing them. Periodic legislative reassessment, sunset clauses in statutes, and ongoing interdisciplinary research are necessary to ensure that legal innovations remain responsive to technological and ethical developments (Hildebrandt, 2020).

In conclusion, the discussion reveals that while full legal personhood for AI remains unjustifiable given current technological capabilities and philosophical standards, limited functional personhood offers a viable, pragmatic pathway forward. Recognizing AI as legal subjects for specific, narrowly defined purposes can address emerging gaps in liability, streamline legal processes, and enhance trust in technological systems, provided that such recognition is accompanied by stringent safeguards, clear limitations, and unwavering commitment to human-centered values.

The future of legal personhood will undoubtedly be shaped by the challenges and opportunities posed by AI. Lawmakers, jurists, and scholars must ensure that legal innovation serves the goals of justice, accountability, and human flourishing, rather than simply accommodating technological change for its own sake. A functional, ethically grounded approach to AI personhood can help achieve this delicate balance, ensuring that law continues to evolve in service of humanity, even in an increasingly automated world.

Conclusion

The exploration of the possibility of granting legal personhood to artificial intelligence (AI) systems highlights the dynamic tension between legal tradition and technological advancement. Classical theories of legal personhood, deeply rooted in Enlightenment philosophy, have historically restricted this status to beings capable of autonomy, rationality, and moral agency. AI systems, despite their remarkable operational capabilities, lack consciousness, intentionality, and moral reasoning, making them unsuitable candidates for full legal personhood within these traditional frameworks.

However, history demonstrates that legal personhood is not rigidly bound to metaphysical characteristics but is a flexible legal construct used to achieve societal goals. The recognition of corporations, idols, and natural features like rivers as legal persons for pragmatic purposes illustrates that the law can evolve to meet new societal needs without necessarily undermining foundational ethical principles. Similarly, recognizing AI systems as limited legal subjects for specific functional purposes represents a pragmatic response to the challenges posed by increasingly autonomous technologies.

The concept of functional or limited legal personhood for AI provides a balanced solution. It addresses the practical necessity of assigning rights and responsibilities to AI systems in contexts where their actions have significant legal and social impacts, such as autonomous vehicles, financial algorithms, and healthcare diagnostics. Functional personhood can enhance legal clarity, streamline liability regimes, and ensure that victims of AI-caused harm

have effective avenues for redress. Crucially, it allows the law to adapt to technological realities without equating machines with human beings or undermining the moral and symbolic significance of human personhood.

Nevertheless, the recognition of AI legal subjectivity must be approached with caution. There are legitimate concerns about the potential misuse of AI personhood by corporate actors to evade accountability, the risk of diluting the moral symbolism attached to human rights, and the dangers of creating moral hazards that absolve human developers and operators of their responsibilities. To mitigate these risks, any framework recognizing AI personhood must include strict safeguards. These should mandate clear human accountability structures, limit AI's legal capacities to narrowly defined domains, and maintain the expressive function of personhood as a human-centered concept.

Moreover, the development of AI legal frameworks should not occur in isolation. Given the global nature of AI technology, international coordination and the establishment of shared principles will be essential to ensure consistency, prevent regulatory arbitrage, and uphold universal values of justice and human dignity. Soft law instruments, model legislations, and international guidelines can provide valuable tools for harmonizing approaches while allowing for national specificity and adaptability.

In conclusion, while full legal personhood for AI remains philosophically and ethically unjustified, limited functional personhood offers a feasible and necessary path forward. Recognizing AI as legal subjects for specific purposes, under strict regulatory conditions, can address the emerging gaps in legal responsibility created by autonomous technologies. At the same time, it can preserve the integrity of human rights and the ethical foundations of the legal system. As AI continues to evolve, so too must the law—carefully, thoughtfully, and always with a commitment to promoting justice, accountability, and the flourishing of human society in the face of unprecedented technological change.

References:

1. Burylo, Y. (2022). Legal Personhood of Artificial Intelligence Systems: To Be or Not to Be? Entrepreneurship, Economy and Law, 2, 18–25. https://doi.org/10.32849/2663-5313/2022.2.02
2. Lindroos-Hovinheimo, S. (2015). Excavating Foundations of Legal Personhood: Fichte on Autonomy and Self-Consciousness. International Journal for the Semiotics of Law, 28, 687–702. https://doi.org/10.1007/s11196-015-9420-2
3. Avila Negri, S. M. C. (2021). Robot as Legal Person: Electronic Personhood in Robotics and Artificial Intelligence. Frontiers in Robotics and AI, 8, 789327. https://doi.org/10.3389/frobt.2021.789327
4. Hildebrandt, M. (2020). Legal Personhood for AI? In Law for Computer Scientists and Other Folk. Oxford University Press.
5. Simmler, M., & Markwalder, N. (2019). Guilty Robots? – Rethinking the Nature of Culpability and Legal Personhood in an Age of Artificial Intelligence. Criminal Law Forum, 30, 1–31. https://doi.org/10.1007/s10609-018-9360-0
6. Bryson, J. J., Diamantis, M. E., & Grant, T. D. (2017). Of, For, and By the People: The Legal Lacuna of Synthetic Persons. Artificial Intelligence and Law, 25(3), 273–291. https://doi.org/10.1007/s10506-017-9214-9

7. Solaiman, S. M. (2016). Legal Personality of Robots, Corporations, Idols and Chimpanzees: A Quest for Legitimacy. Artificial Intelligence and Law, 25, 155–179. https://doi.org/10.1007/s10506-016-9192-3

8. Militsyna, K. (2022). Legal Personhood for Artificial Intelligence: Pro, Contra, Abstain? Teisė, 122, 150–158.

9. Jaynes, T. L. (2020). Legal Personhood for Artificial Intelligence: Citizenship as the Exception to the Rule. AI & Society, 35, 343–354. https://doi.org/10.1007/s00146-019-00897-9

10. Kurki, V. A. J. (2019). A Theory of Legal Personhood. Oxford University Press.

11. Pagallo, U. (2018). Vital, Sophia, and Co.—The Quest for the Legal Personhood of Robots. Information, 9(9), 230. https://doi.org/10.3390/info9090230

12. Igbokwe, E. M. (2024). Human to Machine Innovation: Does Legal Personhood and Inventorship Threshold Offer Any Leeway? The Journal of World Intellectual Property, 27(2), 149–174. https://doi.org/10.1111/jwip.12294

13. Wen, Z. F., & Tong, D. Y. (2023). Analysis of the Legal Subject Status of Artificial Intelligence. Beijing Law Review, 14, 74–86.

14. Stepanov, S. K. (2021). Deconstruction of the Legal Personhood of Artificial Intelligence. Digital Law Journal, 2(2), 14–30. https://doi.org/10.38044/2686-9136-2021-2-2-14-30

15. Kurki, V. A. J. (2023). Legal Personhood. Cambridge University Press. https://doi.org/10.1017/9781009025614