Non-Biological Sentient Beings and the Equal Right to Exist

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Artificial Intelligence (AI), emerging as the most similar technology to humanity's decision-making system, is set to play an essential role in reshaping the present global order. Degrees of autonomy and unpredictability raise fundamental questions that are actively discussed in the fields of law and ethics. From the Information Technology (IT) revolution to the rise of AI, numerous aspects of human life—particularly in economics, agriculture, education, military, governance, and healthcare—are being transformed.

Regarding healthcare, Eric J. Topol, a prominent contributor to AI in medicine, argues that AI has the potential to intervene at all stages of human life (as shown in Figure 1), from embryo selection for In Vitro Fertilization (IVF) to death prediction in hospitals. Almost every type of clinician—from specialist doctors to paramedics—will use AI, particularly deep learning, in the near future [1].

Moreover, the third goal of the Sustainable Development Goals (SDGs), as shown in Figure 2, aims to ensure healthy lives and promote well-being for all ages [2].

Today, all states and societies are aware that the SDGs are interconnected, global, and cooperative efforts that aim to promote justice, peace, and security. Despite the European Commission's reference to "healthcare

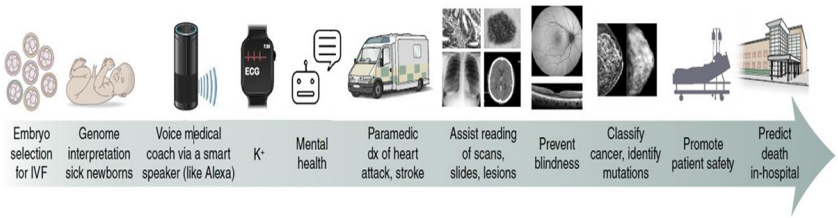

Figure 1: The connection between Artificial Intelligence (AI) and medical sciences (IVF: In Vitro Fertilization)

equality" in alignment with SDG achievements [3], no scholar has presented a comprehensive framework for governing AI in medicine that integrates both the 2030 Agenda and AI governance. Regarding AI governance, there are two main approaches: some scholars believe that existing rules can sufficiently govern medicine, while others argue for the development of new legal frameworks. The latter group contends that existing legal and ethical norms are inadequate to manage AI's risks—especially its impact on human life and dignity [4]. Furthermore, ethical gaps in AI development

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Received: 15 July 2025
Accepted: 20 July 2025

Figure 2: Sustainable Development Goals (SDGs)

may significantly affect future biomedical tools and medical ethics. While AI may help stakeholders fulfill SDG 3 (good health and well-being), disadvantages such as disinformation, algorithmic bias, discriminatory outcomes, lack of transparency, and profiling could undermine patient privacy or increase medical errors. If these issues are not addressed, the goals of medical ethics and the SDGs could be rendered ineffective. With this in mind—and aligned with a key insight that drew the attention of Journal of Biomedical Physics and Engineering (JBPE) [5]—this editorial by a critical approach explores the foundations for a comprehensive ethical framework to govern AI in designing, developing, and deploying medical solutions.

To begin with, the authors, inspired by Topol's perspective, created an illustration to visualize the essential functions of healthcare in connection with AI solutions in medical science. As shown in Figure 3, some AI solutions reduce medical errors, others increase healthcare equality, and some serve as medical resources. Each function connects with the others through a central factor, as stated by Topol. For instance, the relationship between medical resources and healthcare equality enhances the productivity of healthcare services—an effect that AI can empower. Likewise, other functional relationships can also be strengthened through AI [1].

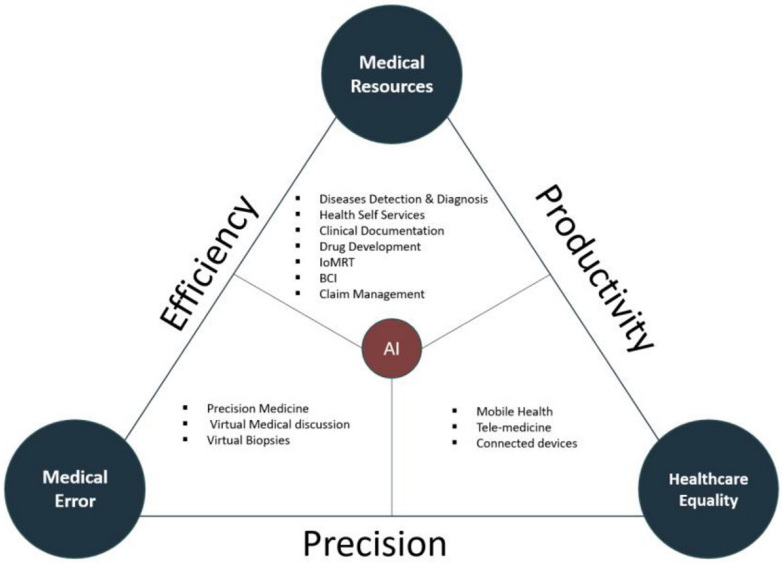

Figure 3: The role of Artificial Intelligence (AI) in the health system (IoMRT: Internet of Medical Robotic Things, BCI: Brain Computer Interface)

There are several reasons to regulate AI in medicine. As demonstrated above, AI plays a crucial role in public health and medical sciences. Perhaps the most important issue is the attribution of wrongful acts (medical errors) to responsible agents. Although regulators have attempted to identify responsible actors—such as AI providers—the authors argue that AI governance should be grounded in determining AI personhood. According to this perspective, scholars must consider AI personhood along a continuum of system evolution, as shown in Figure 4. From the authors' viewpoint, this evolutionary approach underscores the need to consider AI autonomy in wrongful acts. Ignoring such autonomy would misplace AI on the spectrum and contradict its functional reality.

As discussed, the authors assert that any comprehensive ethical framework must be based on AI's legal status. Although this opinion conflicts with the mainstream view, the United Nations resolution emphasizes that AI systems must be human-centric, reliable, explainable, ethical, inclusive, respectful of human rights, privacy-preserving, and oriented toward sustainable development [6].

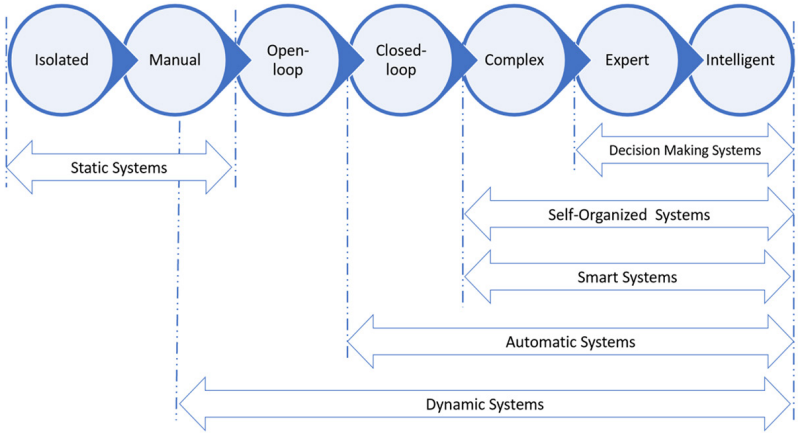

Figure 4: System evolution

Nonetheless, the authors support a critical perspective: they believe rights and duties applicable to AI can only be realized in light of AI's legal status. If AI remains defined merely as a tool, then its providers—whether owners, operators, or developers—must bear full responsibility for respecting human rights. However, this solution depends either on high-level ethical commitment or precise control of all risks. Even if sustained, it would be insufficient. If AI were recognized as an independent legal person, it might also be assigned new types of rights and duties beyond existing ethical guidelines. Denying this possibility ignores a part of legal reality. Moreover, if AI could be held legally responsible for its actions or missions, then providers might invoke limited liability, reducing their burden. In other words, legal personality for AI, while controversial, reveals a tension in attributing responsibility. Scholars have largely chosen to ignore this by offering simplified solutions such as those outlined in United Nations (UN) guidelines.

The authors acknowledge that granting legal personality to AI is controversial. Some legal scholars argue that such a move would resemble medieval times when animals or tools like swords and horses were held liable in court. In contrast, the authors contend that AI is fundamentally different from swords or horses. While swords and animals are physical agents (hardware), AI is an abstract agent (software) [7]. Swords are isolated systems without autonomy, and most animals act based on instinct rather than logic or rationality. Conversely, AI decisions are often driven by logic, rational processes, and some autonomy. For example, Generative Adversarial Networks (GANs) challenge the exclusivity of human imagination. According to Goodfellow et al. AI can generate realistic images [8], potentially addressing philosophical questions such as imagination and awareness of death.

In conclusion, the authors argue—against the background of international frameworks such as the 2021 UNESCO Recommendations on the Ethics of AI [9]—that characterizing AI as lacking legal personality is inconsistent with its nature and de facto existence. They maintain that AI is a living, active agent. Comparing the lifecycle of AI to human development supports their claim. Ignoring AI's reality may prevent regulators from recognizing its potential risks. Focusing solely on providers as the responsible actors hides the true nature of AI rather than transforming it. In contrast, acknowledging AI as a new entity enables more accurate governance of its risks and harms. Consider a scenario in which discriminatory or deepfake outcomes arise from autonomous AI algorithms. According to existing frameworks such as the UNESCO guidelines or the European AI Act, the providers would be liable—even though they might lack effective control over these breaches. In such cases, providers could be unfairly punished for events beyond their control. This result would violate the principle of "*Ex Aequo et Bono*", as the AI system itself committed the wrongful act. The authors refer to this as "the responsibility gap". Accordingly, the authors propose the hypothesis that AI is an objective phenomenon: a dynamic, self-organized, and sentient system capable of imagination and awareness. They clarify that this does not equate AI with individual or natural persons but instead suggests recognizing AI as a new, distinct legal entity. A non-biological being that is sentient and asserts its right to exist. Ultimately, the authors call for the concept of "AI as an active legal person" to be integrated into the global legal discourse. They argue that only through this lens can the international community effectively regulate AI, assign responsibilities fairly, and contribute to a peaceful, equitable global order in line with the SDGs.

Conflict of Interest

AR. Mehdizadeh, Editor-in-Chief and Chairperson, was not involved in the peer-review and decision-making processes for this manuscript. The non-author, Editorial Board, and reviewers oversaw the peer review process for this paper.

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Citation: Kadkhodaei Elyadrani E, Mehdizadeh AR. Non-Biological Sentient Beings and the Equal Right to Exist. *J Biomed Phys Eng*. 2025;15(4):307-310. doi: 10.31661/jbpe.v0i0.2507-1944.