International Journal of Applied Ethics, Vol-11 (2025), 1–4
doi:

Research Paper

The Moral Status of Artificial Intelligence in Healthcare: An Ethical Inquiry

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Abstract

Artificial Intelligence, which is identical to the intelligence of human being. This is a trending concept in our day today activities, which is transformed in to scientific knowledge and technological support in the middle of 20th century. John McCarthy was an American computer scientist, who coined the term 'Artificial Intelligence', Along with McCarthy , Alan Turing, a British mathematician and also logician can ask a question – "Can Machine think?" - in his seminal paper "Computing Machinery and Intelligence." He also introduced the Turing Test to assess a machine's intelligence, and is thus widely regarded as one of the fathers of modern computing. This is the fundamental question behind the innovation of Artificial Intelligence in the world.

This paper explores the philosophical and ethical foundations of moral status in emerging AI technologies within the medical profession. Philosophical theories such as deontology, utilitarianism, and virtue ethics help to strengthen the ethical underpinnings of Artificial Intelligence. The paper emphasizes the importance of ensuring that, although AI lacks consciousness and moral status, its role in ethical decision-making must be subject to careful ethical regulation.

Keywords: *Artificial Intelligence, Moral Status, Healthcare Ethics, Moral Agency, Bioethics, Responsibility, Autonomy, Informed consent, justice, Beneficence, Trust, deontology, utilitarianism, Virtue ethics*

(Received 03 12 2025; Accepted 08 17 2025)

1. INTRODUCTION

Artificial Intelligence or AI is the capacity or features of machines or computer programs to learn , think and behave like human being . It allows computers to perform tasks such as recognizing images, understanding speech, making decisions, and solving problems. The integration of artificial intelligence (AI) into healthcare has been a progressive journey marked by significant technological advancements. In the 1970s and 1980s, early AI applications primarily relied on rule-based and expert systems designed to replicate human decision-making processes in diagnostics and treatment planning. Nowadays, Artificial Intelligence (AI) is being increasingly used in various areas of healthcare, with numerous applications integrated into healthcare systems. For examples

- Diagnostic support: - here AI helps to identify diseases through the technologies like X-rays, CT scans, and MRIs.
- Predictive analytics: - it's type pre prediction to understand disease progression and I may prevent complications during the treatment period.
- Robotic surgery: - AI assists doctors to perform operations and reduce minimal risk.
- Virtual health assistants: -It monitors patient health conditions continuously and answer health questions in real time. These technologies help doctors to make faster and more informed decisions.

Now, AI helps doctors to diagnose diseases, suggest treatments, and analyse medical data more quickly and accurately and is rapidly becoming a vital tool in enhancing the quality, efficiency, and accessibility of healthcare services by enabling accurate diagnoses, personalized treatments, and streamlined clinical workflows. With the advanced technologies like machine learning, natural language processing, and computer vision, AI supports real-time patient monitoring, accelerates drug discovery, and improves overall healthcare delivery outcomes. But this integration of artificial intelligence (AI) into the medical profession raises several ethical challenges that need careful consideration. Though it has led to remarkable improvements in efficiency, precision, and decision-making capabilities, its advancements also bring to the forefront critical philosophical and ethical considerations, particularly regarding moral responsibility, trust, rationality, and the nature of decision-making in complex clinical scenarios. The most important fundamental philosophical questions about moral responsibility, trust, decision making in challenging situation, rationality, consciousness etc. has to be essentially addressed to ensure that technological advancement in healthcare remains ethically grounded and aligned with human values. The question is whether AI incorporated machine treated

Author for correspondence: Leena K.R.; drleenakr@gmail.com.
Cite this article: Leena, K. R., & Basheer, M., The Moral Status of Artificial Intelligence in Healthcare *International Journal of Applied Ethics* **11(2025)**, 1–4. https://doi.org//

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patient or other customers as moral agents or rational patients.

The main purpose of this study is to explore the ethical implications of using Artificial Intelligence in healthcare. AI is human assisted intelligent incorporated in machine. So it lacks consciousness, rationality, and critical decision making. it raises fundamental ethical concerns related to patient's privacy, fairness in medical profession, accountability in healthcare system, and also prime priority to patient autonomy. Autonomy is one of the pillars in medical ethics, which emphasis the patient freedom to take what type of treatment can be received from medical field. So, it simply called self-governance. Pillars in healthcare system paves a way to support medical profession in taking decision in any situation particularly in dilemmatic situation. This helps to overcome in problematic situation. Every medical professional has to follow these foundation stone.

2. PILLARS OF MEDICAL ETHICS

Medical ethics is application of ethics in the field of healthcare system, which gives importance to obligations of doctor – patient relationship and also emphases the professional responsibility of technical staff, hospital authority etc. There is a set of code of conduct such as Ancient oath of Hippocrates and is now being established and used as an official code of conduct in health care system. Due to advanced scientific technologies in medical profession pointing towards the some of the dilemmas faced by medical practitioner's related to morality, justice, autonomy, maleficence etc. Medical profession is a sacred profession which support the health care conditions of human being in their life.

Health care system has fundamental values, namely,

- Life Preservation
- Relief of suffering- reduce the intensity of the diseases.
- Complete Cure of disease
- Care of the person- palliative care system
- Prevention of disease- provide adequate preventive vaccine to support
- Promotion of health- community medicine

These are the fundamental values provided by medical profession, along with these values the doctor has certain obligation of the society and his own. There is need for faithfulness or loyalty to the interests of the patient. This loyalty act as a strong bond between the doctor- patient relation. confidentiality and truth-telling are the ethical values , which support the relation strong. It will definitely affect the effective treatment of the diseases. The is sometime conflict occurs between the right and patient autonomy with the need of society. There are certain ethical pillars , principles and theories to solve the conflict- which would be handled by dcor to rectify and solve these confusions among the patient.There are certain ethical concerns, which would be handled by doctors in medical profession. But in AI era, doctors have to conscious about the fundamental pillars in medical ethics.

- Autonomy of the Patient
- Informed Consent
- Confidentiality
- Justice
- Beneficence

Autonomy:- As to the professional responsibility of the physician, the first essential moral code is respect for the autonomy of the patient. It means that the physician is merely an advisor, and not a dictator. *"Respect for autonomy requires that patients be permitted to make their own decisions, even if those decisions seem irrational to others."* (Beauchamp and Childress 106). The physician can expressed their opinion and suggestion, not to compel any form of therapy or treatment. The physician is obligated to help patients attain their own interests and goals as determined by the patients, not the physician.*"As AI begins to assist in clinical decisions, preserving patient autonomy becomes both more important and more complex"* (Virginia 45).

Informed Consent:- Consent means voluntary agreement, compliance or permission. To be legally valid, it must be given after understanding what it is given for, and of risks involved. In every treatment informed consent is necessary – it emphasises the willingness of what treatment can be received from the hospital. The doctor has to be well informed and expressed the treatment procedure of the patient. That is, risks factors, treatment procedures, benefit etc. The patient can have the right to take a decision about the treatment and he is the final authority to do the continuation of treatment procedure. It also emphasises the patient right to self determination.

Confidentiality:- Confidentiality is known as informational privacy. Now a days it become a strong issue about patient's privacy. Every individual has the right to keep theirown personal privacy. In Medical profession confidentiality indicates the need of informational privacy in the matter of clinical records. the patient has the right to determine and release the data about herself will be revealed to the third party- what extent of data can be released to the public. The doctor has to build a strong trust among doctor-patient relationship can create a bond- this indicates that the patient trustfully reveals all the conditions of hisown. Doctor has the responsibility to maintain confidentiality- which is not to be passed on to a third party. . If confidences are broken, patients may not give full information about the full conditions, it can be very difficult to proper diagnosis and treatment.

Justice:- The principle of justice emphasises the need of fairness and equity in social system and also in individuals. This principle applied in medical profession indicates that there should be an equal allocation and fairness in treatment procedure and hospital management system. Sometimes the equal allocation and fairness in decision that causes burden and benefit, as well as equal distribution of scarce resources and new treatments opportunity. The medical practitioners have the challenge to distribute equally in all situations fairly. Sometimes the doctor has to face a difficulty in balancing the principle of Justice. The doctor has to follow certain remedial measure to overcome this difficulty. Many criteria behind the allocation of all medical resources fairly- that is economic conditions, intensity of diseases, general condition of the patient etc. In Indian constitution health does not figure as a fundamental right, it is present in the directive Principles of State Policy.

Beneficence:- The term Beneficence came from the Latin language which means "doing good". The word is extremely close to the term benevolence which means "wishing good". The aim to "do well" is often considered an essential part of any ethical perspective that hopes to suggest acceptable solutions to the ethical dilemmas in bio ethics. The goal of health care is to

help people to get healthy and to stay healthy. The whole point of health care and of those involved in it is to do people good and make them happy by providing all sorts of mental and physical support together with medical aids.

So, this study aims to identify these ethical challenges, examine their impact on patients and healthcare providers, and propose ways to address them responsibly. The aim is to ensure that AI in medicine is used safely, transparently, and ethically for the benefit of all. In AI world, how the artificial intelligence created machine tackle these morals and ethical principles effectively. There are many questions and concerns about integrating ethics with artificial intelligence.

- oversight or input? - Autonomy
- Is AI consistently acting in the best interest of the patient, or is it influenced by data-driven efficiency over human welfare? -beneficence
- Can AI systems unintentionally harm patients due to algorithmic errors or lack of context-sensitive judgment? - Non-maleficence
- Are patients adequately informed about how AI is used in their diagnosis or treatment? - informed consent
- Does AI ensure fair and equal treatment across all patient groups, or does it reinforce existing healthcare disparities? - justice

Along with existing ethical concerns, the AI era in the medical profession also brings new ethical challenges.

2.1. Privacy and Data Security

AI systems in medical profession depends on large amounts of patient data to study and make decisions about what type of treatment can be received. This will create many ethical challenges.

- How patient data is collected, stored, and used
- Risks of data kept in digital form and unauthorized access to any technicians.
- Keeping Patient confidentiality and data privacy in digital environments becomes very tough.

2.2. Constant Bias and Fairness

AI systems can generate biased system building which is made by the technicians. It also has a specific capacity in Artificial Intelligence to do certain things. Apart from these created intelligence, the specific robot cannot do anything. "Computer Systems: Moral Entities but Not Moral Agents" (Johnson 206).

- Discrimination against certain groups - e.g., based on race, gender, or socioeconomic status, political influences etc.
- Inaccurate or unequal treatment recommendations
- Unfair access to AI-driven medical services

2.3. Accountability and Liability

These ethical concerns think about who are responsible for making things, weather it is right or wrong. When AI makes a wrong diagnosis or treatment suggestion, it's unclear who is responsible. Is it the problem of doctor or software developer or artificial intelligent machine or hospital authority? In case of errors occurs, who is responsible for Legal and professional accountability. In AI treatment system can reduce human oversight.

2.4. Transparency and Explainability

Many AI models have deep learning systems; -their decision-making processes are not easily understood by commons. This creates problems lot of ethical problems:

- Lack of trust from patients and healthcare professionals
- Difficulty in justifying clinical decisions made by AI

3. ETHICAL THEORIES AND ARTIFICIAL INTELLIGENCE

Artificial intelligence in medical Profession has a lot of contributions, which is supported by philosophical theories that exists – deontology, utilitarianism, and virtue ethics.

DEONTOLOGY: - Deontology is an ethical theory propounded by Immanuel Kant, a German Philosopher. It focuses on moral duties and moral rights in themselves, regardless of outcomes or consequences. the main aim of this is duty, rules, and intrinsic rightness of actions. Human actions are ethical if they adhere to moral laws- the moral laws are preserved by society, culture, religion etc. Everyone should obey the moral law; which Kant emphasizes this on his Maxims of Morality-Respect Human Dignity. Kant said that every person has inherent worth simply because they are rational and moral beings. *"Act only according to that maxim whereby you can at the same time will that it should become a universal law."* (Kant 31). No one never use people as tools to achieve their goals- it simple means never use as a means. We must treat them as ends in themselves — valuable on their own. Human dignity means treating people with respect, fairness, and honesty — not as things to be used, but as individuals with rights and moral value. Deontology demands that AI systems and their creators act according to universal moral duties, ensuring human dignity with respect and rights are never violated, regardless of the consequences.

UTILITARIANISM: - it says that "An action is right if it produces the greatest good for the greatest number". In Diagnosis and treatment area in health care system can saves more lives-maximum benefit for more patients. In the same way of drug discovery, resource allocation, virtual health assistants have a lot of significance in utilitarian principle- "maximum happiness of Maximum Number". Utilitarianism focuses on *outcomes or result*, so ethical concerns like patient privacy, bias, or individual consent must still be handled carefully. It also supports AI in medical system because it increases benefits and saves more lives, improving overall well-being for the majority-it aims at the welfare of Humanity with greatest number. *"Ethics is not an ideal system, remote from the practical concerns of everyday life. It is the study of how we ought to live."* (Singer 1). Jeremy Bentham was the founder of classical utilitarianism. He believed that the right action is the one that brings the greatest happiness. John Stuart Mill support refined utilitarianism that ensure the quality of pleasure. He advocated for social reforms, including better healthcare. Peter Singer, a modern Philosopher applies utilitarianism to global issues, like poverty and medical ethics. He strongly

supports using technology and science to reduce suffering. He supports AI in healthcare if it's used to save lives efficiently and fairly.

VIRTUE ETHICS: - Virtue Ethics was propounded by the Greek philosopher Aristotle in his seminal work *Nicomachean Ethics*. He argued that the aim of human life is to achieve eudaimonia -flourishing or well-being. It can be attained by cultivating virtues through habit and practical wisdom. So, it is an ethical theory that emphasizes the character of the moral agent rather than rules or consequences. A trait of character manifested in habitual action that is good for a person to have. Virtue ethics has a significant role in medical profession that emphasizes the character of the moral agent. *"A being has moral status if and only if it is morally considerable in its own right."* (Warren 3). It is applied in modern era like AI world; virtue is a specific programmable tool. The software developer can decide what extend of virtue or compassion can be used in AI Machine. Here the moral agent has to decide how much values can be incorporated in machine. Yet AI lacks consciousness and moral character, so it cannot *truly* possess virtues. AI can be programmed to simulate virtuous behaviour -e.g., fairness, empathy in decision-making systems.

Virtue ethics applied to AI shifts focus from machines being moral to ensuring that human agents involved in AI exhibit moral virtues and aim for technology that promotes human flourishing.

4. REGULATIONS AND GUIDELINES

Governments and international bodies have started developing regulations to ensure that AI in healthcare is used safely and ethically.:

- The EU AI Act is the first comprehensive legal framework on AI globally. It classifies AI systems by risk levels -e.g., unacceptable, high, limited, minimal. Medical AI systems are typically classified as high-risk, requiring strict oversight, transparency, and human supervision. The EU AI Act suggest that it requires clear documentation, risk assessment, and ongoing monitoring of AI tools used in healthcare.
- The U.S. Food and Drug Administration (FDA) oversees AI/ML-based Software as a Medical Device (SaMD). The FDA has issued a "Proposed Regulatory Framework" for adaptive AI, focusing on: Transparency, Real-world performance monitoring, pre-and post-market review. AI tools must demonstrate safety, effectiveness, and reliability before approval.
- The World Health Organization (WHO) released global ethical principles for AI in health in 2021. It emphasizes the values like Human well-being and safety, Accountability, Inclusiveness and equity, Responsiveness and sustainability.
- India: NITI Aayog has proposed ethical AI guidelines, still under development

Benefits of AI in Medicine:

- Faster and more accurate diagnoses
- Personalized treatments
- Reduced healthcare costs
- Enhanced decision-making for clinicians
- Improved patient outcomes

5. CONCLUSION

Artificial Intelligence (AI) has a tremendous potential to transform healthcare by improving treatment, diagnosis, customised treatment, and reducing medical errors. Its main job is to process large amounts of patient's data quickly and that can support faster and more accurate clinical decisions. *"Artificial intelligence will never replace doctors, but doctors who use AI will replace those who don't."* (Topol 86). While AI cannot replicate human qualities like empathy, moral reasoning, and nuanced clinical judgment, it can significantly assist doctors by improving diagnostic accuracy, streamlining treatment planning, and enhancing efficiency in areas like medical imaging and data analysis. Therefore, doctors who embrace and integrate AI into their practice will have a clear advantage, offering better and faster care. In contrast, those who ignore technological advancements may fall behind, making way for more tech-savvy professionals. Thus, AI is set to redefine, rather than replace, the role of doctors in the future of healthcare. However, there are lot of ethical concerns related to privacy, bias, accountability, and transparency must not be overlooked. These issues, if unaddressed, could compromise patient trust and lead to unintended harm. To ensure patient's the safety, fairness, and responsible use of AI in medicine, ethical collaboration is essential.i.e., ethical collaboration among all stakeholders—doctors, AI developers, ethical policymakers, and patients—is essential. As AI becomes increasingly integrated into clinical decision-making, it is crucial to develop transparent algorithms that are free from biases and respect patient privacy. Medical professionals must be trained to understand and interpret AI outputs responsibly, ensuring that technology supports rather than overrides human judgment. Policymakers and healthcare institutions must establish ethical guidelines and regulatory frameworks that safeguard patients from potential harm or discrimination. Furthermore, involving patients in discussions about AI applications helps build trust and ensures that their rights and dignity are upheld. Such a collaborative and ethical approach will help harness the full potential of AI while maintaining the integrity and humanity of medical care Together, ethics and technology can shape AI that supports human values and truly benefits patients across all backgrounds.

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