

Legal and Ethical Consideration in Artificial Intelligence: Who Takes Responsibility?

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ABSTRACT

The phrase artificial intelligence (AI) describes a machine or software's ability to simulate intelligent human behavior, perform instantaneous computations, and evaluate new data based on previously evaluated data. AI is typically integrated with both software and hardware, with its primary focus being on algorithms from a software perspective. AI employs a variety of algorithms to identify complicated non-linear relationships in large datasets (analysis). Machines learn by fixing tiny algorithmic flaws (training), which improves prediction model accuracy (confidence). The legal and ethical issues that confront society due to AI include privacy and surveillance, bias, or discrimination, and potentially the philosophical challenge. Concerns about newer digital technologies becoming a new source of inaccuracy and data breaches have arisen because of their use. This article attempted to address these pertinent issues, highlighting the need for algorithmic transparency, privacy, and protection for all the beneficiaries involved, as well as the cybersecurity of associated vulnerabilities.

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1. INTRODUCTION

Artificial Intelligence (AI), in its most basic words, can be explained as the science of making machines that can think like humans and process large amounts of data unlike humans. AI has developed from a concept that was theoretical to the most advanced modern technology. AI has various implementations in various sectors like healthcare, transportation, finance, education, entertainment, etc. As there was an immense growth in AI technologies, there were opportunities as well as challenges in the field of legal and ethical considerations. The categorization of artificial intelligence raises questions about accountability, responsibility, and the ethical implications of machines.

AI functions with a level of independence and self-learning capabilities that make the assignment of responsibilities more difficult than in traditional software systems. This also leads to a negative impact on individuals and society. Therefore, it is crucial and relentless to figure out what legal and ethical boundaries AI should function under.

The law regarding AI remains in the beginning stages of development. The current laws and rules are not readily accessible to computers, which arrive at decisions based on their own preferences since they are mainly designed for human behavior. This void requires an examination of legal concepts in the framework of Artificial Intelligence particularly responsibility, inattention, and ethics. As an example, who will be considered responsible for an accident that occurred in an AI-driven vehicle—the AI system itself, its owner, the manufacturer of the vehicle, or the developers? This question has demanded a thorough understanding of both law and technology.

Ethical considerations have another level of difficulty. AI systems are specially designed to make decisions that are supposed to have ethical implications, such as in the fields of healthcare, the criminal justice system, and job-seeking opportunities. It is crucial to ensure that these decisions are fair and transparent. In AI, ethical considerations involve the values that implement the development of AI, and they must also address the issues that society faces while dealing with AI. While analyzing who takes responsibility for the legal and ethical consideration of AI, we should also analyze the challenges and solutions associated with it. The aim is to develop a guide to legal and ethical guidelines, ensuring that AI technologies benefit the public while analyzing the risks they pose.

2. BACKGROUND OF ARTIFICIAL INTELLIGENCE

The history of AI has an elongated pathway that covers expeditions to create artificial beings that can perform, behave like humans, achieve skills, and execute tasks like humans. The foundation and initial stage of creating artificial beings began in the mid-20th century. At a conference held at Dartmouth College in the summer of 1956 for the explicit purpose of founding AI as an academic discipline, the term ‘Artificial Intelligence’, coined by John McCarthy, at the time a graduate student at Princeton University, to capture this idea. McCarthy must have taken the term from Willard Gibbs, who, several decades earlier, had used the term ‘artificial intelligence’ to refer to mechanical means of extending and enhancing human intelligence. John McCarthy and Marvin Minsky, photographed just after the Dartmouth Conference in New Hampshire in 1956 (photo provided by Marvin Minsky). McCarthy, along

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