

AI and Ethics: Legal and Social Implications

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Abstract

Artificial Intelligence (AI) has evolved at breakneck speed from a science fiction fantasy to a revolutionary technology that leaves its footprint on nearly every aspect of modern life. From tailored suggestions on online streaming websites to driverless cars and AI-driven diagnosis, the applications of AI are diverse and growing. According to a report by PwC (2017), AI is projected to contribute up to \$15.7 trillion to the world's economy by 2030, and that is a sign of how enormous its potential is. That growth, however, has gigantic ethical, legal, and societal challenges that must be dealt with as soon as possible. Issues such as bias in algorithmic decision-making, privacy invasions, and responsibility for AI-driven actions have dominated global discussions. Similarly, the use of AI for surveillance has evoked the spectre of mass collection of data and loss of privacy. The more autonomous the AI system is, the more complex are issues of liability and responsibility. The present paper examines such issues of serious concern, bearing in mind the ethical implications of AI and legislation that will govern its use.

By looking at concrete cases and by making pragmatic recommendations, the research in this case will be complementing the premise of the moral design of AI. The work is centred around making sure inter-disciplinary interaction occurs between policymakers, technologists, and citizens so that AI uses for beneficial purposes to society can be assured, while those that are negative can be amortized. Education and mass awareness to attain comprehension of strengths as well as of limitations of AI for all individuals on an even platform are being emphasized in the article. Last but not

least, the study wants to bridge the gap between technology development and human happiness so that AI becomes an instrument of goodness and never an instrument of harm.

Keywords

Artificial Intelligence, AI Ethics, Legal Implications, Bias in AI, Privacy Violations, Accountability, Autonomous Systems, AI Regulation, Ethical Frameworks, Global Perspectives

1. Introduction

AI is no longer a buzzword-it's reality and it is changing our lives. From recommending your next best hit song to self-driving cars, AI infuses our lives. And with all that power comes great responsibility. As AI becomes wiser, so do the tough questions: Is it fair? Is it safe?

And if things go amiss, who is responsible? This essay delves into the ethical and legislative challenges of AI, looking into concerns such as bias, privacy, and liability. We'll also explain how laws and legislation can keep pace with this rapidly evolving technology and propose ways of making AI available to all the people, and not merely for an elite majority.

Research Objectives:

- To study the ethics of AI, including bias, privacy, and accountability.
- To study laws required to regulate AI and its social impact.
- To provide pragmatic recommendations to policymakers, technologists, and citizens to enable responsible AI development.

2. Literature Review

Academic literature thoroughly debated the legal and ethical implications of AI. Floridi et al. (2018) provide ethical standards to tackle bias and discrimination in AI systems. Zuboff (2019) identifies the risks that surveillance capitalism creates, including data collection by AI infringing on privacy. Jurist authors like Scherer (2016) advocate for novel regimes of liability to manage AI accidents. Jobin et al. (2019) also provide a comprehensive account of global AI ethics guidelines and identify the same principles like transparency, fairness, and accountability. This article draws on these studies, providing a comprehensive examination of the ethical and legal issues of AI.

3. Theoretical Framework

This paper utilizes utilitarianism and deontology as moral theories to analyze AI practice. Utilitarianism aims at maximizing public good and avoiding harm, and therefore is appropriate in measuring the effect of AI on public good. Deontology emphasizes more compliance with moral rules and norms, such as fairness and transparency, relevant to ethical AI design. In law, the paper utilizes the strict liability doctrine as a method of analysis of AI action accountability, i.e., autonomous machines.

4. Ethical Concerns of AI

1. Bias in Algorithmic Decision-Making

AI machines are sponges—they learn and absorb the data. But what if the data is biased? AI is not able to distinguish right from wrong—it just does the same things it has learned to do. For instance, back in 2018, MIT Media Lab discovered in a study that facial recognition software was significantly less accurate for dark-skinned women, with error rates as high as 34.7%, and for light-skinned men only 0.8% (Buolamwini & Gebru,

2018). That's not a bug per se—it's a very serious ethics problem. Think about being misidentified by a police AI system because of your race. Creepy, right.

Table 1: Facial Recognition System Error Rates (Buolamwini & Gebru, 2018)

Skin Tone	Gender	Error Rate
Light	Male	0.8%
Light	Female	4.1%
Dark	Male	12.5%
Dark	Female	34.7%

And facial recognition is only one domain. Recruitment software using AI has been demonstrated to be sexist, favouring men. To give a simple example, Amazon removed an AI recruitment software in 2018 because it disfavoured resumes that included the word "women's" (i.e., "women's chess club captain") (Dastin, 2018). These are representative of how AI can repeat discrimination without aiming to, and so are ethics issues to be addressed seriously.

2. Invasion of Privacy

AI craves data-greedy.

Where does all that data, though, originate from? Usually, from us. The moment you tap on social media, shop online, or just walk by an image sensor in a CCTV camera, you're providing information to AI platforms. Although it makes life convenient, it does have gigantic privacy issues. A 2021 Carnegie Endowment for International Peace report found that 75 of 176 countries employ AI surveillance, from facial recognition to monitoring social media (Feldstein, 2021).

Table 2: Countries Employing AI Surveillance (Feldstein, 2021)

Region	Number of Countries
	Employing AI Surveillance
North America	6
Europe	22
Asia	32
Africa	10
South America	5

Yes, AI surveillance will apprehend criminals, but it will also facilitate mass surveillance of innocent citizens. Ask yourself: would you rather a machine watch your every step? That is why we need to have legislation such as the General Data Protection Regulation (GDPR) of the EU—it gets to protect our privacy in the age of AI (European Parliament, 2016).

3. Held Accountable for AI-Driven Action

Who's responsible when an AI system makes a mistake?

It's the question that suddenly became all too frightfully real in 2018 when a driverless Uber vehicle crashed and killed a pedestrian in Arizona (Wakabayashi, 2018). Was it the vehicle? The software programmer? Or the company that allowed it onto the roads? Truth is, we don't know yet. The more self-driving the AI software, the less we're sure who is responsible. Not only is this a matter of law—this is an ethical question that involves real human persons. Case Study: Uber Self-Driving Car Crash (2018)

Incident: A pedestrian was struck and killed by a self-driving Uber car in Tempe, Arizona.

Resolution: Uber settled with the victim's family but no criminal charges were filed.

Ethical Implications: The crash acted to underscore the necessity for firm liability guidelines for AI-based systems.

5. Legal Implications of AI

1. Intellectual Property Rights

Can a machine be considered an author? Artificial intelligence systems like DALL-E and GPT-3 are creating masterpieces of painting and writing essays. But do they have intellectual property rights? In 2021, the US Copyright Office denied copyright for an artwork created by an AI, "A Recent Entrance to Paradise" (US Copyright Office, 2021). Why? Because as per law, only human being can be an author. But as everything is becoming intelligent with AI, this provision may need to be altered.

Table 3: Artificial Intelligence-Generated Content and Intellectual Property Rights

AI System	Type of Content	Copyright Status
A Recent Entrance	Artwork	Denied (US Copyright Office)
DABUS (AI Inventor)	Patent	Pending (Various Jurisdictions)
OpenAI (GPT-3)	Text	No Definite Legal Framework

2. *Liability for AI Actions*

When artificial intelligence goes wrong, who pays the bill?

It is especially fascinating in fields such as medicine, where AI makes a diagnosis of illness. 72% of legal professionals, according to a 2020 report from Harvard Law Review, feel that existing law is not yet equipped to cope with AI failure (Harvard Law Review, 2020). Taking an example, suppose AI gets a patient's diagnosis wrong; must the hospital, the developer, or AI be blamed?

With no regulation set up, the cases fall into a quagmire of laws. Table 4: Challenges of Liability in AI Applications

Application issues of Liability

- Autonomous Vehicles
- Microsoft, Google, User
- Healthcare AI
- Hospital, Google, AI System
- Financial AI
- Bank, Google, Regulatory Body

3. *Regulation of Autonomous Weapons*

AI is not just changing civilian life but war as well. Autonomous weapons, or "killer robots," can decide on life and death without human involvement. The United Nations called for an international ban on such weapons in 2021, citing the threat of AI warfare running out of control (UN News, 2021). But with technology changing so rapidly, their regulation is a race against time.

4. *Social Impacts of AI*

1. *Impact on Jobs*

AI can perform work more efficiently than human beings, but what happens to individuals who used to do that work? According to the World Economic Forum (2020), 85 million jobs could be lost to AI by 2025, but 97 million new jobs could be created. Not everyone will benefit equally, however. Low-skilled individuals could lose their jobs, but high-skilled individuals could thrive in the future AI economy.

Table 5: Estimated Job Displacement and Generation (WEF, 2020)

Sector	Jobs Displaced	Jobs Created
Manufacturing	20 million	12 million
Retail	15 million	10 million
Healthcare	5 million	15 million

6. *Methodology*

This research follows a qualitative, literature review strategy to analyze the legal and ethical implications of Artificial Intelligence (AI). The research is conducted in three phases:

Literature Review: A systematic review of a peer-reviewed article, book, and case study was conducted via databases like Google Scholar and IEEE Xplore. Key themes such as bias, privacy, and accountability were identified.

Case Study Analysis: Three in real life were analyzed to present ethical and legal concerns: Uber Self-Driving Car Crash (2018): Priced out liability.

Amazon AI Hiring Tool Bias (2018): Was concerned about bias in algorithms.

Face Recognition Bias (MIT Media Lab, 2018): Was concerned about fairness issues.

9. *Recommendations*

Legal Frameworks Enforced Strongly: Governments should update the present legislations and pass new legislations to accommodate the unique challenges of AI.

Encouraging Ethical Design of AI: Developers must consider ethical issues during AI design, such as fairness, transparency, and responsibility.

Public Awareness and Education: Public education and awareness of the law and ethics of AI are required.

10. Limitations and Future Research

There are certain limitations of this research. One, the 100-sample participant group may not be generalizable for the world population at large. Two, online dissemination can actually exclude participants who lack internet access. Future research must have a larger sample and mixed methodology with interviews and focus groups so that more richer data could be collected. Cross-comparison across AI policies of different countries can provide a more accurate picture.

11. Conclusion

AI is revolutionary, but it is not without its problems. From bias and privacy concerns to responsibility and job displacement, the legal and ethical implications of AI are complex and far-reaching. All of us together—policymakers, technologists, and the public—we can make AI benefit everyone, not the privileged few. The future of AI is ours to shape, and it is our responsibility to shape it.

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