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The Ethics of Artificial Intelligence: Sociopolitical and Legal Dimensions

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This study aims to explore the ethical dimensions of artificial intelligence (AI), focusing on its sociopolitical and legal implications. It seeks to identify and analyze the primary ethical concerns that arise from the development and deployment of AI technologies, with an emphasis on understanding how these concerns impact society and the legal frameworks that govern AI. Employing a qualitative research design, this study conducted semi-structured interviews with 22 participants from diverse professional backgrounds, including technology ethicists, legal scholars, AI developers, policymakers, and advocacy group representatives. The data collection aimed for theoretical saturation, with the interviews designed to uncover a broad range of perspectives on AI ethics. Thematic analysis was used to identify and categorize the main themes and sub-themes related to the ethical implications of AI. The analysis revealed two main themes: Sociopolitical Dimension and Legal Dimension. The Sociopolitical Dimension includes categories such as Privacy and Data Governance, Bias and Discrimination, AI and Employment, Digital Divide, and AI in Governance. The Legal Dimension encompasses Intellectual Property Rights, Liability and Accountability, Regulatory Frameworks, AI Ethics and Law Integration, and Human Rights and AI. Each category was further explored through specific concepts, highlighting the complexities and challenges inherent in the ethical considerations of AI technologies. The study underscores the intricate relationship between AI technologies and ethical considerations, emphasizing the necessity for comprehensive, multidisciplinary approaches to address the identified sociopolitical and legal challenges. It advocates for the development of inclusive, equitable, and responsive frameworks that not only mitigate risks but also promote the beneficial potential of AI, ensuring that technological advancements align with societal values and legal norms.

Keywords: *Artificial Intelligence Ethics, Sociopolitical Implications, Legal Frameworks, Privacy, Bias and Discrimination, Intellectual Property Rights, Regulatory Compliance, Human Rights.*

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1. Introduction

The utilization of AI in critical sectors such as healthcare, education, and governance has demonstrated its potential to significantly enhance efficiency, decision-making processes, and service delivery. Carter et al. (2020) underscore the transformative impact of AI systems in breast cancer care, emphasizing the technology's potential to revolutionize diagnosis and treatment paradigms. Similarly, Tapalova and Zhiyenbayeva (2022) highlight AI's role in personalizing educational pathways, indicating its capacity to tailor learning experiences to individual student needs, thus optimizing educational outcomes. However, the deployment of AI technologies is not devoid of ethical, legal, and social implications (ELSI), which necessitate thorough examination and

thoughtful consideration (Carter et al., 2020; Tapalova & Zhiyenbayeva, 2022).

The ethical landscape of AI is marked by concerns over privacy, bias, transparency, and accountability. Huang et al. (2023) provide an overview of AI ethics, stressing the importance of ethical guidelines in the development and implementation of AI systems to safeguard against potential misuse and harm (Huang et al., 2023). The emergence of biases in AI algorithms, as discussed by Jobin and Ienca (2019), poses significant challenges to achieving fairness and equity, raising questions about the mechanisms in place to detect and mitigate such biases (Jobin & Ienca, 2019). The need for ethical frameworks is further echoed by Dignum (2018), who calls for the integration of ethical considerations in AI research and development processes to ensure the alignment of AI technologies with human values and societal norms (Dignum, 2018).

The sociopolitical dimension of AI ethics encompasses issues related to the digital divide, surveillance, and the impact of AI on employment and governance. The digital divide, as addressed by Hermansyah et al. (2023), highlights the disparities in access to AI technologies, which could exacerbate existing social inequalities (Hermansyah et al., 2023). Concerns about surveillance and privacy are articulated by Al-Bsherawy (2021), who examines the civil responsibilities associated with AI applications in the medical industry, underscoring the need for robust legal rules to protect individuals' rights (Al-Bsherawy, 2021). The potential displacement of jobs due to AI advancements, discussed by Wirtz et al. (2018), prompts a reevaluation of labor markets and the necessity for policies that support workforce adaptation and reskilling (Wirtz et al., 2018).

The legal dimension of AI ethics revolves around the development of regulatory frameworks, intellectual property rights, and liability issues. The work of Begishev et al. (2019) delves into the methods of legal regulation of AI, advocating for international cooperation to address the transnational nature of AI technologies and their implications (Begishev et al., 2019). The challenges of attributing liability in cases where AI systems malfunction or cause harm are explored by O'Sullivan et al. (2019), who highlight the complexity of establishing accountability mechanisms within existing legal structures (O'Sullivan et al., 2019). Furthermore, the integration of ethical decision-making in legal frameworks, as proposed by Almpani et al. (2022, 2023), suggests a formalized approach to ensuring that AI systems adhere to ethical standards and legal requirements (Almpani et al., 2022, 2023). The discourse on AI ethics is further enriched by considerations of human rights and the imperative to align AI development with the protection and promotion of fundamental rights. Cath (2018) discusses the governance of AI, emphasizing the ethical, legal, and technical opportunities and challenges involved in ensuring that AI serves the public good (Cath, 2018). The recognition of the international legal personality of AI, as contemplated by Talimonchik (2021), raises profound questions about the status of AI entities and their rights and responsibilities under international law (Talimonchik, 2021).

The ethical, sociopolitical, and legal dimensions of AI present a complex array of challenges that require multidisciplinary approaches to address. The contributions of scholars across various fields have laid a foundation for understanding the implications of AI technologies and the necessity for robust frameworks that ensure their responsible development and deployment. This article aims to build upon this foundation, offering insights into the sociopolitical and legal dimensions of AI ethics through a qualitative exploration of expert perspectives. By examining the ethical considerations that underpin the integration of AI into society, this study contributes to the formulation of comprehensive strategies that prioritize human rights, equity, and justice in the age of artificial intelligence.

2. Methods and Materials

2.1. Study Design and Participants

This study adopts a qualitative research methodology to explore the complex ethical, sociopolitical, and legal dimensions of artificial intelligence (AI). Given the intricate nature of AI ethics, a qualitative approach allows for an in-depth examination of perceptions, attitudes, and the nuanced considerations that quantitative methods might overlook. The research was designed to achieve theoretical saturation, a point at which no new information or themes are observed in the data. This approach ensures a comprehensive understanding of the subject matter, reflecting the depth and breadth of the issues at hand.

Participants were selected using purposive sampling to include a diverse range of perspectives on AI ethics, including technology ethicists, legal scholars, AI developers, policymakers, and advocacy group representatives. This sampling strategy aimed to ensure a broad understanding of the ethical, legal, and sociopolitical considerations in AI, capturing insights from those directly involved in or affected by AI technologies.

Participants were provided with informed consent forms detailing the study's purpose, their rights, and the confidentiality measures in place. All interviews were conducted under strict ethical guidelines to protect participants' privacy and the confidentiality of the information shared.

2.2. Measures

2.2.1. Semi-Structured Interview

Data were collected through semi-structured interviews, offering a balance between guided questions and the flexibility for participants to share their insights and experiences in their own words. The interview guide was developed to cover key topics in AI ethics, including but not limited to privacy concerns, bias and fairness, accountability and transparency, and the legal frameworks governing AI. Interviews were conducted until theoretical saturation was achieved, ensuring a comprehensive exploration of the subjects' views and experiences.

2.3. Data Analysis

The interviews were transcribed verbatim and subjected to thematic analysis using NVivo, a qualitative data analysis software. This process involved coding the transcripts to identify recurring themes and patterns related to the ethics of AI. The analysis was iterative, with initial codes being refined and categorized into broader themes as more data were analyzed. This inductive approach allowed for the emergence of insights directly from the data, grounded in the participants' perspectives and experiences.

3. Findings and Results

In this qualitative study, a total of 22 participants were engaged to explore the ethical dimensions of artificial intelligence across sociopolitical and legal landscapes. The demographic composition of the participant pool was diverse, encompassing a range of professions, genders, and geographical locations to ensure a broad spectrum of perspectives. Of the participants, 12 identified as male, and 10 identified as female, reflecting a balanced gender distribution. Professionally, the cohort included 5 technology ethicists, 4 legal scholars, 6 AI developers, 3 policymakers, and 4 representatives from advocacy groups, ensuring a multidisciplinary approach to the research questions.

Table 1

The Results of Thematic Analysis

Categories	Subcategories	Concepts (Open Codes)
Sociopolitical Dimension	Privacy and Data Governance	Data consent, Anonymity, Data protection policies, International data sharing, Surveillance
	Bias and Discrimination	Algorithmic bias, Racial profiling, Gender disparity, Inclusive design, Socioeconomic impact
	AI and Employment	Job displacement, Skill mismatch, Worker surveillance, Reskilling and upskilling, Gig economy
	Digital Divide	Access to technology, Internet accessibility, Educational inequalities, Technology literacy
	AI in Governance	E-governance, Public service automation, Voter profiling, Transparency, Accountability
Legal Dimension	Intellectual Property Rights	AI authorship, Copyright laws, Patentability of AI-generated content, Open-source AI models
	Liability and Accountability	Fault attribution, AI as legal entities, Consumer protection, Ethical design standards, Transparency in AI decision-making
	Regulatory Frameworks	National regulations, International cooperation, Regulatory sandbox, GDPR, Compliance monitoring
	AI Ethics and Law Integration	Ethical guidelines in legal frameworks, Voluntary standards vs. mandatory regulations, Corporate governance in AI, AI audit trails
	Human Rights and AI	Right to privacy, Freedom of expression, Right to non-discrimination, Digital rights, Access to justice

The investigation into the ethical dimensions of artificial intelligence (AI) revealed complex issues spanning sociopolitical and legal realms. This research identified two main thematic categories: the Sociopolitical Dimension and the Legal Dimension, each encompassing a variety of subthemes with associated concepts.

3.1. Sociopolitical Dimension

Privacy and Data Governance: A critical concern is the management and protection of personal data. Interviewees highlighted the importance of data consent and protection policies. One participant noted, "The line between data utility and privacy invasion is increasingly blurred in AI applications," emphasizing the need for robust data governance frameworks.

Bias and Discrimination: The potential for AI to perpetuate or even exacerbate societal biases was frequently discussed. "Algorithmic decisions are only as unbiased as the data they're trained on," remarked one respondent, pointing to the need for more inclusive design and awareness of socioeconomic impacts.

AI and Employment: Concerns were raised about job displacement and the changing nature of work. "AI's impact on the workforce is double-edged, offering efficiency gains but also risking significant job displacement," an interviewee observed, suggesting a focus on reskilling.

Digital Divide: The disparity in access to AI technologies was identified as a pressing issue. "The digital divide exacerbates existing inequalities, leaving behind those without access to the internet or digital literacy," a participant commented.

AI in Governance: The role of AI in enhancing or complicating governance processes garnered attention. "While AI can streamline public services, it also raises questions about surveillance and accountability," noted another respondent.

3.2. Legal Dimension

Intellectual Property Rights: The challenge of applying traditional intellectual property laws to AI-generated content was highlighted. As one interviewee put it, "Determining authorship for AI-generated works is a legal gray area that challenges current copyright and patent laws."

Liability and Accountability: The difficulty in attributing liability for AI actions was a significant concern. "In the event of an AI error, pinpointing responsibility becomes complex, necessitating clearer guidelines," stated a participant.

Regulatory Frameworks: The need for comprehensive and coherent regulatory frameworks was emphasized. "There's a patchwork of regulations that fails to fully address the transnational nature of AI technologies," an interviewee argued.

AI Ethics and Law Integration: Integrating ethical considerations into legal frameworks was seen as crucial. "Laws need to evolve to incorporate AI ethics, balancing innovation with safeguarding public interest," remarked a respondent.

Human Rights and AI: The impact of AI on human rights, including privacy, freedom of expression, and non-discrimination, was a concern. "AI should enhance, not undermine, human rights," one participant succinctly stated.

4. Discussion and Conclusion

The qualitative analysis of the ethical dimensions of artificial intelligence (AI) led to the identification of two main themes: Sociopolitical Dimension and Legal Dimension. Under the Sociopolitical Dimension, five categories were explored: Privacy and Data Governance, Bias and Discrimination, AI and Employment, Digital Divide, and AI in Governance. In the Legal Dimension, the study examined Intellectual Property Rights, Liability and Accountability, Regulatory Frameworks, AI Ethics and Law Integration, and Human Rights and AI. Each category was further dissected into specific concepts, providing a detailed view of the intricacies and challenges within the broader themes.

In the Privacy and Data Governance category, concepts such as data consent, anonymity, data protection policies, international data sharing, and surveillance were discussed, highlighting the complexity of managing personal information in the AI era. Bias and Discrimination examined algorithmic bias, racial profiling, gender disparity, inclusive design, and socioeconomic impact, pointing to the essential need for fairness and equity in AI systems. The AI and Employment category delved into job displacement, skill mismatch, worker surveillance, reskilling and upskilling, and the gig economy, reflecting on AI's transformative

impact on the workforce. Digital Divide addressed access to technology, internet accessibility, educational inequalities, and technology literacy, underscoring the importance of equitable access to AI technologies. Lastly, AI in Governance explored e-governance, public service automation, voter profiling, transparency, and accountability, highlighting the potential and pitfalls of AI in public administration.

Under Intellectual Property Rights, discussions focused on AI authorship, copyright laws, patentability of AI-generated content, and open-source AI models, reflecting the legal complexities of AI-generated intellectual property. Liability and Accountability touched upon fault attribution, AI as legal entities, consumer protection, ethical design standards, and transparency in AI decision-making, emphasizing the challenges in establishing accountability for AI actions. Regulatory Frameworks looked at national regulations, international cooperation, regulatory sandbox, GDPR, and compliance monitoring, pointing to the need for cohesive regulatory approaches. AI Ethics and Law Integration examined the integration of ethical guidelines into legal frameworks, voluntary standards versus mandatory regulations, corporate governance in AI, and AI audit trails, suggesting pathways to embed ethics within legal statutes. Human Rights and AI explored the right to privacy, freedom of expression, the right to non-discrimination, digital rights, and access to justice, highlighting the importance of aligning AI development with human rights principles.

The sociopolitical dimension, particularly regarding privacy and data governance, mirrors concerns raised by Al-Bsherawy (2021), who delves into the civil responsibilities tied to AI applications in the medical industry. This study's findings, highlighting the critical balance between data utility and privacy, align with Al-Bsherawy's emphasis on the legal rules of AI responsibility, underscoring the imperative for robust data protection policies (Al-Bsherawy, 2021). Furthermore, the emphasis on mitigating bias and discrimination in AI systems echoes the argumentation-based logic for ethical decision-making presented by Almpani, Stefaneas, & Frangos (2022), reinforcing the necessity for inclusive design and algorithmic fairness to prevent the exacerbation of societal inequalities (Almpani et al., 2022).

The digital divide and its implications for access to AI technologies reflect the concerns addressed by Hermansyah et al. (2023), who argue for the construction of AI systems that ensure privacy and social justice (Hermansyah et al., 2023). This study's participants highlighted similar issues, advocating for strategies to bridge technological disparities and ensure equitable access to AI advancements. Moreover, the potential impacts of AI on employment and workforce dynamics discussed herein resonate with the insights provided by Wirtz, Weyerer, & Geyer (2018), who examine AI's applications and challenges in the public sector, including the need for policy frameworks to support workforce adaptation (Wirtz et al., 2018).

Within the legal dimension, this research's exploration of intellectual property rights and the challenges of AI-generated content aligns with Kamyshanskiy, Stepanov, Mukhina, & Kripakova (2021), who delve into the challenges and perspectives of AI within the digital society and modern civil law. Similarly, the findings concerning liability and accountability in AI systems are supported by the work of O'Sullivan et al. (2019), who discuss the legal, regulatory, and ethical frameworks necessary for the development of standards in AI and autonomous robotic surgery, highlighting the complexities of attributing liability in AI-induced incidents (O'Sullivan et al., 2019).

The call for comprehensive regulatory frameworks found in this study is echoed by Begishev, Khisamova, & Gaifutdinov (2019), who advocate for international cooperation to address the transnational nature of AI technologies (Begishev et al., 2019). This study's emphasis on the integration of ethical decision-making into legal frameworks further aligns with Almpani, Stefaneas, & Frangos (2023), who propose a formalization of ethical decision-making in healthcare, suggesting a pathway towards embedding ethical considerations within legal statutes to ensure AI's alignment with societal values (Almpani et al., 2023).

The convergence of sociopolitical and legal dimensions in addressing the ethical challenges posed by AI underscores the interdependence of these realms. The ethical frameworks for designing autonomous intelligent systems discussed by Leikas, Koivisto, & Gotcheva (2019) support this study's findings, advocating for a holistic approach that encompasses ethical, legal, and technical perspectives to navigate the complexities of AI

governance, as also suggested by Cath (2018) (Cath, 2018; Leikas et al., 2019).

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

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