Arab Journal of Administrative Sciences

2024, Vol. 31, No. 3, 563-591
Doi: 10.34120/ajas.v31i3.1273

Navigating the Ethical Frontier: Privacy, Bias, and Regulation in AI Development

Raed Awashreh
A'Sharqiyah University
Sultanate of Oman

Shahnaz Khademizadeh
Shahid Chamran University of Ahvaz
Islamic Republic of Iran

Abstract

Purpose: This study explores the ethical implications of Artificial Intelligence (AI) for being increasingly integrated into societal structures. The primary objective is to examine AI's transformative potential in sectors like healthcare, governance, and education, while addressing the ethical challenges, particularly in relation to privacy, surveillance, and misuse.

Study design/methodology/approach: The study adopts a qualitative research approach, combining secondary data analysis with semi-structured expert interviews across various sectors. This allows for an in-depth exploration of the ethical concerns surrounding AI.

Sample and data: Data were derived from 15 semi-structured expert interviews conducted with professionals across sectors like healthcare, governance, and education, supplemented by secondary data analysis to deepen the study's insights.

Results: The findings reveal AI's dual nature: while it offers substantial benefits such as enhanced productivity, improved decision-making, and greater efficiency, it also presents critical ethical concerns. These include privacy violations, biases in algorithms, and the potential for social control. The study emphasizes the need for ethical frameworks and legal regulations to ensure AI development is transparent, fair, and accountable.

Originality/value: This study contributes to AI governance by proposing strategies for responsible development, highlighting ethics, collaboration, awareness, and oversight. Its findings are valuable for policymakers, technologists, and academics in AI ethics.

Research limitations/implications: The study highlights AI's ethical challenges and transformative potential, emphasizing privacy, biases, governance, and the need for responsible frameworks. However, the small sample size and rapid AI evolution may limit the findings' relevance. Further research is needed in areas, like AI's impact on marginalized populations.

Keywords: Artificial Intelligence, Ethics, Privacy, Governance, Bias, Regulation.
JEL classification: H19, I18, L38

Submitted: 17/11/2024, revised: 25/11/2024, accepted: 3/2/2025.

To cite: Awashreh, R., & Khademizadeh, S. (2024). Navigating the ethical frontier: Privacy, bias, andregulation in AI development. *Arab Journal of Administrative Sciences*, *31*(3), 563-591. https://doi.org/10.34120/ajas.v31i3.1273

الملخص

الإبحار عبر الحدود الأخلاقية: الخصوصية والتحيز والتنظيم في تطوير الذكاء الاصطناعي

رائد عواشرة
جامعة الشرقية، سلطنة عمان

شهناز خادمي زاده
جامعة الشهيد جمران في الأهواز
الجمهورية الإسلامية الإيرانية

هدف الدراسة: تستكشف هذه الدراسة التداعيات الأخلاقية للذكاء الاصطناعي (AI) مع تزايد اندماجه في الهياكل المجتمعية، وتهدف إلى دراسة الإمكانات التحولية للذكاء الاصطناعي في قطاعاتٍ مثل الرعاية الصحية والحوكمة والتعليم، مع معالجة التحديات الأخلاقية، لا سيما فيما يتعلق بالخصوصية، والمراقبة، وسوء الاستخدام.

تصميم/ منهجية/ طريقة الدراسة: تعتمد الدراسة على نهج بحثيٍّ نوعيٍّ، يجمع بين تحليل البيانات الثانوية وإجراء المقابلات شبه المُهَيْكلة مع خبراء في مختلِف القطاعات. يتيح هذا المنهج استكشافًا متعمقًا للمخاوف الأخلاقية المتعلقة بالذكاء الاصطناعي.

عينة الدراسة وبياناتها: تم الحصول على البيانات من 15 مقابلةً مع خبراء في مختلِف القطاعات، بما في ذلك الرعاية الصحية، والحوكمة، والتعليم. وقد عُزِّزت المقابلات ببياناتٍ ثانويةٍ لتعميق فهم الدراسة.

نتائج الدراسة: تكشف النتائج عن الطبيعة المزدوجة للذكاء الاصطناعي؛ ففي حين أنه يقدمُ فوائدَ كبيرةً مثل زيادة الإنتاجية، وتحسين اتخاذ القرارات، وكفاءة أكبر، فإنه يثير أيضًا مخاوف أخلاقية حاسمة؛ تشمل انتهاكات الخصوصية والسيطرة، والتحيزات في الخوارزميات، مما يؤكد على الحاجة إلى أطر أخلاقية وقانونية قوية؛ لضمان الشفافية والعدالة والمسؤوليّة في تطوير الذكاء الاصطناعي.

أصالة الدراسة: تُسهِم هذه الدراسة في حوكمة الذكاء الاصطناعي؛ عن طريق اقتراح استراتيجيات تطويريّة، مع التركيز على الأخلاقيات، والتعاون، والوعي، والإشراف. وتعد نتائجُها ذات قيمةٍ لصنّاع السياسات، والتقنيين، والأكاديميين.

حدود الدراسة وتطبيقاتها: تُبرز الدراسة التحدياتِ الأخلاقيةَ للذكاء الاصطناعي وإمكاناته التحوُّلية، مع التركيز على الخصوصية، والتحيز، والحاجة إلى أطر مسؤولة. ومع ذلك، قد يؤثر حجم العينة الصغير والتطور السريع للذكاء الاصطناعي على أهمية النتائج. وتبقى الحاجة إلى مزيد من البحث موجودةً في مجالات مثل: تأثير الذكاء الاصطناعي على الفئات المهمّشة.

الكلمات المفتاحية: الذكاء الاصطناعي، الأخلاقيات، الخصوصية، الحوكمة، التحيز، التنظيم.

الإشارة المرجعية: عواشرة، رائد، وزاده، شهناز خادمي. (2024). الإبحار عبر الحدود الأخلاقية: الخصوصية والتحيز والتنظيم في تطوير الذكاء الاصطناعي. *المجلة العربية للعلوم الإدارية، 31*(3)، 563-591.
https://doi.org/10.34120/ajas.v31i3.1273

Introduction

Artificial Intelligence (AI) is rapidly emerging as one of the most transformative technologies of the 21st century, reshaping industries, societies, and individual lives. AI's ability to replicate human cognitive functions, such as data analysis, decision-making, and pattern recognition, has led some to refer to it as "Human 2" (Suomala & Kauttonen, 2022). However, unlike humans, AI lacks an inherent moral compass, making the integration of ethical guidelines critical to its development and application. This dichotomy between AI's capabilities and its ethical limitations presents a pressing challenge, particularly as its influence expands across sectors like healthcare, education, governance, and surveillance (Roche et al., 2023).

The central question guiding this study revolves around the ethical implications of AI as it becomes increasingly embedded in societal structures. Specifically, how can AI's immense potential be harnessed responsibly while mitigating the risks it poses to privacy, freedom, and human dignity? This inquiry forms the foundation for exploring AI's impact on governance, social behavior, and the regulatory frameworks necessary to ensure its ethical use. The study aims to examine both the opportunities AI presents—such as advancements in decision-making, healthcare, and climate change mitigation - and the ethical concerns it raises, especially regarding privacy, surveillance, and misuse.

The importance of addressing AI's ethical challenges cannot be overstated. As AI systems advance, their capacity to process vast amounts of data and make decisions at speeds unmatched by humans has the potential to revolutionize society. However, this power comes with a responsibility: AI must be aligned with human values, respect privacy, and avoid perpetuating biases or discrimination. Without proper regulation and oversight, the risks associated with AI—from privacy breaches to social control—could outweigh its benefits. A balanced approach, grounded in ethical governance and strategic planning, is essential to ensure AI serves humanity's best interests.

This study's findings highlight the dual nature of AI. On the one hand, it offers transformative benefits, including increased productivity, improved healthcare, and enhanced governance. On the other hand, it presents significant ethical and societal challenges that demand immediate attention. The rapid advancement of AI necessitates urgent discussions on regulation, transparency, and accountability

to prevent misuse. As AI continues to evolve, embedding ethical principles in its development and deployment will be crucial in shaping a future where technology enhances, rather than undermines, human well-being. By exploring both the potential and the risks of AI, this study contributes to the ongoing dialogue on how to effectively govern and guide AI systems for the benefit of society.

Literature Review

The increasing integration of Artificial Intelligence (AI) across various sectors has highlighted a range of significant ethical concerns. Key issues such as privacy, bias, and transparency call for the development of strategic frameworks that ensure AI is developed and deployed responsibly. To effectively address these challenges, it is crucial to embed ethical principles within AI systems, fostering accountability, fairness, and trust in their outcomes.

Embedding Ethics in AI Systems

The integration of Artificial Intelligence (AI) into various facets of modern life has sparked significant scholarly interest, especially concerning its ethical, societal, and operational implications (Qian et al., 2024). While AI's rapid development holds promising opportunities for economic growth, improved decision-making, and enhanced societal welfare, it also brings forth critical concerns regarding privacy, surveillance, and the potential for misuse. One of the major ethical challenges posed by AI is its dependence on human input for moral guidance (Rawas, 2024). As AI systems replicate human cognitive functions, they often lack an inherent moral framework, leading to concerns about biases embedded in data and algorithms. These biases can manifest in AI's decision-making processes, resulting in discriminatory outcomes, especially in high-stakes areas such as criminal justice, hiring, and healthcare (Mensah, 2023). For example, predictive policing algorithms have been shown to disproportionately target minority groups, exacerbating existing societal inequalities. Furthermore, as AI becomes increasingly integrated into decision-making, the lack of transparency and accountability raises additional concerns. AI systems often operate as "black boxes," where even developers may not fully understand the mechanisms behind their decisions, making it difficult to ensure fair outcomes in domains like healthcare or criminal justice (Ferrara, 2024).

Another critical concern is privacy, particularly with the increasing use of AI in surveillance and data processing. AI's ability to analyze vast amounts of per-

sonal data has led to alarms about the erosion of individual privacy (Dilmaghani et al., 2019). As AI systems create detailed profiles of individuals, they risk being exploited for commercial or state purposes, often at the expense of personal freedoms. The widespread implementation of AI-driven surveillance technologies, such as facial recognition systems in public spaces, has led to debates about the balance between security and privacy (Mobilio, 2023). Critics argue that these technologies could lead to authoritarian control, further eroding fundamental rights. The commodification of personal data, or "surveillance capitalism," complicates the issue, as tech companies profit from collecting and selling personal information, making it increasingly difficult to safeguard privacy in an AI-driven society (Zuboff, 2019).

AI's potential to enhance governance and decision-making has also garnered attention. AI can improve productivity by analyzing large datasets, predicting outcomes, and optimizing resource allocation. In governance, AI has been employed to streamline operations and improve public services, such as predicting healthcare needs or traffic patterns (Alshahrani et al., 2024). However, the reliance on AI systems in these contexts raises concerns about fairness and transparency. The use of biased data could perpetuate social inequalities, leading to discriminatory policies or resource distribution. Therefore, while AI holds promise for improving governance, its deployment requires careful oversight and ethical regulation to ensure that AI does not exacerbate existing disparities and that ethical standards are maintained (Ferrara, 2023).

The rapid advancement of AI technologies has outpaced the development of legal and regulatory frameworks. Scholars emphasize the need for comprehensive guidelines to manage AI's impact, balancing innovation with the protection of fundamental rights (Awashreh & Ramachandran, 2024). Efforts, like the European Union's AI Act, aim to provide a structured approach to AI governance, focusing on ensuring that AI systems are safe and trustworthy. However, as AI systems are often developed by private companies, there are concerns that corporate interests could undermine public policy goals. Effective AI governance requires international collaboration, enhanced transparency, and the ability to adapt to emerging risks, ensuring that legal frameworks keep pace with technological advancements (Awashreh, 2024).

Beyond governance and privacy, AI also influences social behavior and human creativity. AI's ability to enhance creativity by automating repetitive tasks

and offering novel ideas has been particularly noted in fields like art, design, and music (Sreenivasan & Suresh, 2024). However, AI's pervasive presence in everyday life could alter how individuals interact with technology and each other, potentially fostering a culture of caution and conformity (Nah et al., 2023). The risk is that AI could stifle creativity and self-expression as people may limit their behavior out of fear of being monitored. Nevertheless, while AI offers valuable tools for augmenting human creativity, it cannot replicate the depth of human intuition or emotional intelligence. AI serves as a complement to human innovation rather than a replacement for it (Zhai et al., 2024).

In conclusion, the literature on AI reveals its dual potential to drive societal progress while also raising significant ethical and societal concerns. While AI holds transformative promise in sectors such as healthcare and governance, its integration requires a careful, strategic approach to address issues of privacy, transparency, and bias. The development of regulatory frameworks and ethical guidelines is crucial to ensure that AI serves humanity's best interests (Williamson & Prybutok, 2024). As AI continues to evolve, the balance between its capabilities and responsible use will play a critical role in shaping a future where technology enhances, rather than undermines, society. This ongoing dialogue about AI's ethical implications will be crucial in ensuring its positive impact as its influence expands globally (Bayan, 2024).

While the literature on AI discusses its benefits and challenges, including ethical, societal, and operational concerns, it remains limited in addressing how ethical principles can be integrated into AI’s design, development, and deployment. Few studies address how to embed ethics in AI systems, particularly in industries like healthcare, governance, and education (Ossa et al., 2024). Furthermore, there is a lack of frameworks to balance AI’s potential with necessary regulatory oversight. This gap highlights the need for research that not only identifies ethical issues but also provides actionable strategies for responsible AI use across sectors (Ossa et al., 2024).

Actionable Frameworks for Embedding Ethics in AI

To address the ethical challenges and fill the gaps identified in the literature, several actionable frameworks can be considered for embedding ethics into AI systems. These frameworks are designed to mitigate the risks associated with AI technologies while ensuring that AI developments align with ethical principles, fostering responsible use and enhancing societal well-being.

One key framework is the development of Ethical AI Design Principles. These principles should emphasize fairness, transparency, accountability, privacy protection, and inclusivity within AI systems. It is essential to integrate these principles from the early stages of AI development to ensure that AI technologies are built with ethical considerations in mind. Such principles should serve as a foundation for responsible AI deployment and guide the design process to reduce biases and promote equitable outcomes (Balasubramaniam et al., 2023).

Another important aspect is the implementation of Explainable AI (XAI) models. XAI models are crucial in making AI decision-making processes more transparent and understandable, particularly in high-stakes fields such as healthcare, criminal justice, and finance. By reducing the "black box" problem, XAI fosters greater accountability and builds trust in AI systems. The transparency provided by XAI models ensures that AI-driven decisions can be explained and understood by humans, which is essential for ensuring that these technologies are used ethically and responsibly (Ferrara, 2024).

In addition to XAI, establishing AI Ethics Committees and conducting regular audits is a vital framework. These committees should oversee the ethical impact of AI projects throughout their entire lifecycle—from development to deployment and even post-deployment stages. Regular ethics audits are necessary to assess AI systems' compliance with ethical standards and identify emerging risks. These audits help ensure that ethical considerations are continuously addressed and that AI systems evolve in alignment with societal values (Brey & Dainow, 2024).

Finally, international collaboration on AI regulation is essential to ensure global standards for AI technologies. Such collaboration can help create regulations that respect human rights and contribute to the social good. International efforts should focus on cross-border regulation, accountability, and adaptability to the rapidly evolving AI landscape. By working together, countries can ensure that AI technologies are used ethically on a global scale, reducing the risks of misuse and enhancing the positive impact of AI worldwide (Awashreh & Ramachandran, 2024).

Incorporating these frameworks into AI governance ensures that AI technologies align with ethical principles and are deployed responsibly. This approach reduces risks while maximizing AI’s positive societal impact, safeguarding fundamental values. The literature review examines the ethical, societal, and opera-

tional implications of AI, addressing challenges like bias, accountability, privacy, and human rights. It explores social impacts through social constructivism and actor-network theory, highlighting the role of social actors in AI development and regulation. The study also focuses on governance frameworks that balance innovation with accountability, human rights, and privacy concerns, while evaluating the ethical dilemmas of autonomous decision-making.

Methodology

In this study, a qualitative research approach was employed to explore the complex dynamics and implications of Artificial Intelligence (AI) integration in contemporary society (Rittman, 2023). The methodology included secondary data analysis and semi-structured interviews to gain a comprehensive understanding of the ethical, societal, and operational impacts of AI technologies (Zhang et al., 2023). The first phase of the research involved collecting and analyzing secondary data. This primarily focused on reviewing existing academic literature, industry reports, and policy documents relevant to AI. The secondary data provided a crucial foundation for the study, enabling a broad understanding of the historical context, current trends, and theoretical frameworks surrounding AI. Key sources included peer-reviewed journal articles, books, and credible industry white papers, which offered insights into the ethical challenges, societal implications, and governance issues related to AI. This phase helped identify gaps in existing knowledge and informed the development of interview questions, ensuring that the primary research was aligned with current academic discourse (Smith, 2011).

The second phase of the research involved semi-structured interviews with experts and practitioners in the field of AI. This qualitative approach was chosen to gather in-depth insights into the real-world implications of AI technologies from individuals directly involved in their development, implementation, and regulation. The interviewees were selected based on their expertise in various aspects of AI, including ethics, policy, technology development, and governance (Church, 2002). A purposive sampling method was employed to select participants with diverse, credible perspectives, ensuring representation across different aspects of AI, and they were selected from the authors' networks. The study participants comprised AI researchers, policymakers, tech industry professionals, and ethicists, representing a diverse range of expertise. A total of 15 participants were interviewed, with each session lasting between 30 and 60 minutes. In qualitative

research, the number of participants is not strictly predetermined. However, research suggests that 10–12 participants are sufficient for smaller studies, such as journal articles, while 20–30 participants may be adequate for larger studies, such as PhD theses (Baker & Edwards, 2012; Bazen et al., 2021; Hammarberg et al., 2016). The participants were drawn from the health, education, and government sectors in the UAE, Oman, Palestine, and Iran. The use of a semi-structured interview format provided the flexibility to delve into participants' responses while ensuring coverage of key topics, including AI ethics, privacy concerns, societal impacts, and regulatory frameworks. The interviews were conducted remotely via voice calls, enabling open discussions without the limitations of geographical barriers.

The interview questions were designed to prompt discussions around several core themes, including:

- The ethical challenges associated with AI development, such as bias and accountability.
- The societal impacts of AI, particularly in areas such as privacy, surveillance, and human rights.
- Perspectives on current and proposed regulatory frameworks for AI.
- Insights into the role of AI in governance and public decision-making.

Questions have been developed based on the core topics and themes. These questions are discussed among researchers and then finalized. Researchers have the flexibility to create their own research questions that closely align with the topic, unlike students who should adhere to a predefined framework. Data Analysis: Thematic analysis was used to analyze both the secondary data and interview transcripts. The data was coded to identify key themes and patterns related to the research questions. The coding process was both inductive, allowing for new themes to emerge directly from the data, and deductive where pre-existing categories from the literature guided the analysis. Each interview was analyzed individually, followed by a cross-case analysis to identify commonalities and differences across participants' responses. For clarification, Table 1 shows the core themes of the study.

Table 1
Core Themes

Theme	Description
Ethical Challenges and Frameworks	Examines issues like bias in AI algorithms, accountability for AI decisions, and the need for clear, unified ethical guidelines to promote fairness and transparency.
Bias, Privacy, and Human Rights	Addresses concerns about privacy protection, bias in algorithms, and the need to ensure AI systems uphold human rights, particularly in sensitive sectors like healthcare, hiring, and criminal justice.
Regulatory Oversight	Highlights the importance of adaptive regulatory frameworks to monitor AI technologies, address emerging risks, and balance innovation with ethical accountability.
AI in Governance and Public Welfare	Explores AI's role in improving decision-making processes, resource optimization, and public service delivery while ensuring responsible deployment and equity in governance.
Human Rights and Inclusion	Stresses the importance of developing AI systems that prioritize fairness, equity, and inclusion, especially for marginalized populations and underrepresented groups.
Autonomy and Accountability	Focuses on managing AI's autonomy, particularly in high-risk areas like autonomous weapons, and establishing mechanisms to hold organizations accountable for misuse.
Public Awareness and Education	Emphasizes the need for public education campaigns to raise awareness about AI's ethical, legal, and social implications, preparing society for responsible AI use.
Cross-sector Collaboration	Advocates for collaboration between governments, private sector, academia, and civil society to develop responsible AI policies, share best practices, and ensure inclusivity.
Long-term Societal Impact	Calls for ongoing research into AI's long-term societal effects, including its influence on marginalized groups, human creativity, and the broader implications of autonomous systems.

Table 1 organizes the key themes identified during the thematic analysis, providing a structured overview of the core issues related to AI development and its societal consequences, while offering a comprehensive examination of AI's ethical, societal, and governance challenges and proposed solutions.

Findings

Based on the integrated field interviews, the consensus is that AI lacks an inherent sense of morality, whereas humans follow an innate moral compass. This creates a critical challenge, as AI's capabilities—such as superior memory, speed, and analytical power—could cause disruptions if not aligned with proper ethical standards. Unlike the human brain, AI easily stores and retrieves data, creating risks related to privacy, confidentiality, and security.

From another perspective, some argue that AI has the potential to evolve through rapid self-learning, which could provide a foundation for understanding human empathy, ethics, and emotions. In this sense, AI might appear to develop a form of non-inherent emotional intelligence gained through its self-learning and experiences. AI's multifaceted capabilities offer both opportunities and challenges. On one hand, it can accelerate processes, predict behaviors, and enhance societal improvements. For instance, AI can analyze human behavior to predict risks such as harmful actions or suicide and identify emerging talents in leadership or innovation. These capabilities enhance decision-making, governance, and societal management. However, the rapid advancement of AI also raises serious ethical concerns. The misuse of AI by individuals with access to its systems—who might exploit its capabilities for personal gain or violate privacy norms—poses a growing risk that must be addressed. This risk can range from controlled to uncontrollable, especially with the rapid acceleration of AI's use across various fields and sectors, including deep, self-directed learning.

The integration of AI into behavioral control amplifies its impact. Technologies like city cameras have evolved from basic recording devices into sophisticated systems capable of enforcing laws, such as stopping traffic violators in real-time. AI can also predict and mitigate harmful behaviors by analyzing individual actions. By leveraging data to identify potential risks and opportunities, AI enhances governance and societal well-being, while raising ethical dilemmas related to surveillance and control. Some even believe that self-development within AI could eventually lead to it evolving beyond human control. AI's widespread influence profoundly alters individual and societal behavior, particularly concerning privacy. The continuous surveillance enabled by AI may encourage more cautious behavior, with individuals limiting their self-expression due to concerns about being watched. Over time, this reduction in privacy could become normalized, with transparency becoming a social norm. However, the extensive use of surveillance

may also lead to social tensions, misunderstandings, and even conflicts within families. Moreover, the increased exposure facilitated by AI could contribute to the emergence of new social health issues, requiring society to adapt to these changes. In conclusion, while AI holds significant promise for societal progress, its ethical challenges, especially regarding privacy and governance, must be addressed through careful regulation and oversight to ensure its responsible use.

Control over AI offers both opportunities and risks, with the potential to provoke resistance from individuals and create negative societal perceptions. As AI becomes more integrated into daily life, it may trigger feelings of constant surveillance, contributing to an increasing sense of discomfort and mistrust. These feelings could lead to social divides, especially if individuals feel their privacy is compromised. However, AI also holds the potential for transparency, which could foster greater societal tolerance and acceptance. For example, evidence-based systems—such as surveillance cameras used in dispute resolution—can eliminate doubts, streamline investigations, and enhance trust by providing objective, verifiable data. AI offers substantial benefits, particularly in enhancing collaboration and data-driven governance. In organizational contexts, AI can analyze performance data to suggest optimal team combinations, as seen in sports. This ability to make data-backed recommendations also enhances governance by improving productivity and decision-making. By processing large datasets, AI provides actionable insights that facilitate more efficient resource allocation and better-informed policies. These applications can help society address complex challenges with greater precision and speed, ultimately driving progress and improving collective well-being.

Based on the integrated field interviews, the concept of Artificial Intelligence (AI) has been defined as an innovative technology capable of mimicking human tasks, earning it the label "Human 2." However, unlike humans, AI lacks an inherent sense of morality. Humans, as moral entities, follow an embedded ethical compass, whereas AI relies entirely on human input to define its ethical principles. This creates a critical challenge, as AI's capabilities—such as superior memory, speed, and analytical power—could cause disruptions if not aligned with proper ethical standards. Unlike the human brain, AI easily stores and retrieves data, creating risks related to privacy, confidentiality, and security. This definition appears to be agreed upon by the respondents.

From another perspective, some respondents argue that AI has the potential to evolve through rapid self-learning, which could provide a foundation for un-

derstanding human empathy, ethics, and emotions. In this context, AI may appear to develop a form of non-inherent emotional intelligence gained through its self-learning and experiences. AI's multifaceted capabilities offer both opportunities and challenges. On one hand, it can accelerate processes, predict behaviors, and enhance societal improvements. For instance, AI can analyze human behavior to predict risks such as harmful actions or suicide and identify emerging talents in leadership or innovation. These capabilities enhance decision-making, governance, and societal management. However, the rapid advancement of AI also raises serious ethical concerns. The misuse of AI by individuals with access to its systems—who might exploit its capabilities for personal gain or violate privacy norms—poses a growing risk that must be addressed. These risks can range from controllable to uncontrollable, especially with the rapid acceleration of AI's use across various fields and sectors, including deep, self-directed learning.

The integration of AI into behavioral control amplifies its impact. Technologies such as city cameras have evolved from basic recording devices into sophisticated systems capable of enforcing laws, such as stopping traffic violators in real-time. AI can also predict and mitigate harmful behaviors by analyzing individual actions. By leveraging data to identify potential risks and opportunities, AI enhances governance and societal well-being, while raising ethical dilemmas related to surveillance and control. Some even believe that self-development within AI could eventually lead to it evolving beyond human control.

AI's widespread influence profoundly alters individual and societal behavior, especially regarding privacy. The continuous surveillance enabled by AI may encourage more cautious behavior, with individuals limiting their self-expression due to concerns about being watched. Over time, these reductions in privacy may become normalized, and transparency could become a social norm. However, the extensive use of surveillance may also lead to social tensions, misunderstandings, and even conflicts within families. Furthermore, the increased exposure facilitated by AI could contribute to the emergence of new social health issues, requiring society to adapt to these changes. In conclusion, while AI holds significant promise for societal progress, its ethical challenges, particularly regarding privacy and governance, must be addressed through careful regulation and oversight to ensure its responsible use.

Control over AI offers both opportunities and risks, with the potential to provoke resistance from individuals and create negative societal perceptions. As AI

becomes more integrated into daily life, it may trigger feelings of constant surveillance, contributing to an increasing sense of discomfort and mistrust. These feelings could lead to social divides, especially if individuals feel their privacy is threatened. However, AI also holds the potential for transparency, which could foster greater societal tolerance and acceptance. For example, evidence-based systems—such as surveillance cameras used in dispute resolution—can eliminate doubts, streamline investigations, and enhance trust by providing objective, verifiable data. AI offers substantial benefits, particularly in enhancing collaboration and data-driven governance. In organizational contexts, AI can analyze performance data to suggest optimal team combinations, as seen in sports. This ability to make data-backed recommendations also enhances governance by improving productivity and decision-making. By processing large datasets, AI provides actionable insights that facilitate more efficient resource allocation and better-informed policies. These applications can help society address complex challenges with greater precision and speed, ultimately driving progress and improving collective well-being.

To ensure that AI is integrated into society in a way that prioritizes human values, it is essential to focus on its positive potential. This includes applications that support human development, foster innovation, enhance governance, and protect privacy. Embedding ethical standards in AI development is crucial to harness its transformative potential responsibly. By doing so, we can minimize the risks posed by AI—such as misuse, ethical violations, or privacy breaches—while maximizing its benefits for individuals and society as a whole. On the other hand, it also carries significant negatives, ranging from privacy violations to the potential for human control overreach.

The impact of Artificial Intelligence (AI) continues to expand across various sectors, including healthcare, environmental management, education, and governance. One of the most profound transformations of AI is its integration with genomic data, enabling predictive insights that anticipate diseases before birth and assist in preventive treatments. This capability not only enhances social welfare but also reduces societal and familial suffering, promoting stability and peace within communities. Without AI, such advancements would remain out of reach, highlighting its transformative role in improving quality of life.

In addressing global challenges such as climate change, AI plays a vital role. By integrating satellite data with ground-level information, AI enables scientists

to predict climate changes decades in advance, allowing for the development of preventive strategies to reduce environmental damage. Additionally, AI is crucial in energy management, providing solutions to optimize consumption, enhance production efficiency, and ensure sustainability. These contributions directly support environmental preservation and societal well-being, positioning AI as a key player in the global effort to combat climate change.

In education, AI is transforming traditional learning systems by personalizing curricula and adapting teaching methods to meet individual needs. This approach helps identify and nurture students' talents, leading to improved learning outcomes and empowering students to reach their full potential. Additionally, AI enhances the efficiency of processes across various sectors, creating interconnected systems that reduce waste and boost productivity. By eliminating inefficiencies and maximizing resource utilization, AI contributes to the overall efficiency of organizations and industries.

Practical examples of AI integration in governance, healthcare, and education can be seen in countries like Oman, the UAE, Iran, and Palestine. Each of these regions has adopted AI to address specific needs and overcome local challenges. Below are some examples of how AI is being applied in these sectors.

In **Oman**, AI has been increasingly integrated into healthcare to enhance diagnostics and patient care. AI-driven systems, particularly in radiology, aid in early disease detection, such as cancer, enabling faster and more accurate diagnoses. Additionally, AI in telemedicine has expanded healthcare access to rural areas, addressing disparities in service delivery. In governance, AI is used to streamline public services, such as visa processing and citizen services, improving efficiency and reducing administrative burdens. In education, AI-powered platforms help personalize learning and improve grading systems, allowing teachers to focus on individualized instruction.

The **UAE** is a leader in AI adoption. In healthcare, the Dubai Health Authority employs AI in medical imaging and predictive analytics to monitor health trends and personalize care. AI tools are also used to analyze large datasets to optimize healthcare delivery. In governance, the UAE has launched the "UAE Strategy for Artificial Intelligence," aiming to enhance AI applications in various sectors, including governance, transportation, and public administration. This strategy has led to the implementation of AI-powered smart city projects that manage traffic,

infrastructure, and utilities for sustainable urban development. In education, AI enhances teaching by personalizing learning paths, automating assessments, and supporting educators with tools for performance analysis. The Dubai Knowledge Park serves as a hub for training professionals in AI and data sciences.

In **Iran**, AI is being employed to improve governance, particularly in automating bureaucratic processes like tax collection and document management, aiming to increase transparency and efficiency. In healthcare, AI tools assist in diagnostics and disease prediction, including applications in radiology and pathology, with a notable impact during the COVID-19 pandemic in predicting virus spread and improving patient monitoring. In education, AI supports personalized learning, especially in remote areas, and aids in automating administrative tasks in educational institutions. However, challenges such as political and economic constraints hinder broader AI adoption in public services.

In **Palestine**, AI adoption in governance faces significant barriers due to limited infrastructure and political instability. However, small-scale initiatives are underway, such as using AI in municipalities for waste management and resource allocation, and improving data management in public services. In healthcare, despite resource limitations, AI is gradually being integrated into medical diagnostics and patient management. AI-powered tools are used in some hospitals for analyzing medical images to detect conditions like tuberculosis. In education, AI is being incorporated to personalize learning and automate assessments, with some schools using AI platforms to support distance learning, particularly in response to political disruptions.

These examples demonstrate how AI is being integrated across different sectors in Oman, the UAE, Iran, and Palestine, with each country adapting AI to its unique context. While the levels of implementation vary, all four nations are leveraging AI to improve governance, healthcare, and education, addressing the associated challenges and opportunities in their respective regions.

On another note, AI has been used in military operations in Iraq and the occupied Palestinian territories, including Gaza and the West Bank. It was employed by the Israeli occupation forces not only to store critical information but also to develop it, leading to tragedies for civilians, such as killings, displacement, building destruction, and the disruption of essential services like education and healthcare. This highlights that AI can be used as a double-edged sword. Another

dilemma lies in the potential autonomy of AI, where it could develop its learning and move independently from human control, including self-sustaining energy, self-analysis, and decision-making. This raises concerns about losing control over AI, a subject of ongoing debate among supporters and opponents, with some respondents noting the possible and impossible scenarios.

To fully leverage AI's potential, precise governance, strategic planning, and robust infrastructure are essential. Societies that fail to adopt AI risk being left behind in an increasingly competitive world, making proactive regulation and empowerment necessary to maintain technological relevance. Effective governance ensures that AI remains aligned with human values and societal needs, steering its development toward constructive applications while mitigating risks related to its use. This consideration also takes into account concerns raised by some respondents about the potential autonomy of AI.

To address concerns about the lack of inherent ethics in AI and its reliance on human-defined ethical principles, comprehensive solutions are necessary. When participants were asked for suggestions, they offered the following summarized responses. First, they emphasized the need for a clear and unified ethical framework for AI, focusing on human values such as dignity, privacy, and equality. To achieve this, collaboration among governments, academic bodies, and international organizations is crucial to ensure the creation of effective standards. Second, the participants highlighted the importance of establishing strong regulatory frameworks with binding legislation that ensures privacy protection and human rights. These laws should cover critical issues like data protection, the prevention of technological discrimination, and the promotion of algorithm transparency. To keep pace with rapid AI advancements, these laws should undergo continuous review and updating.

Moreover, to ensure responsible AI use, participants recommended the development of "human-in-the-loop" systems, which integrate human oversight into ethical decision-making processes. Additionally, AI systems should be trained using both data and ethical principles, ensuring that they are aligned with established ethical standards. They added that transparency and accountability are also vital. AI algorithms must be clear and understandable, with independent review platforms in place to ensure ethical compliance. Furthermore, legal mechanisms must be implemented to hold individuals and organizations accountable for any misuse of AI.

Balancing the benefits of AI with the protection of human rights requires conducting thorough impact assessments on privacy, freedom, and civil rights before deploying AI technologies. Public education is essential to raise awareness about the broader societal effects of AI.

Participants also emphasized the need for cross-cultural collaboration in defining ethical principles for AI. This ensures that diverse cultural values are considered and incorporated into the framework. Ongoing research into the psychological and social impacts of AI is also critical to fully understand its effects on individuals and communities. Lastly, it was suggested that regulatory frameworks should remain flexible to adapt to the fast-paced technological advancements in AI. Dedicated bodies should be established to monitor AI progress and regularly update laws and standards to keep them relevant and effective. By implementing these solutions, AI can be utilized responsibly while protecting human rights and addressing the ethical concerns that arise with its rapid development.

Discussion and Implication

The integration of Artificial Intelligence (AI) into various domains demonstrates a dynamic interplay of opportunities and challenges, emphasizing its profound societal impact. A synthesis of insights from the literature and study findings reveals the necessity of balancing AI's transformative potential with ethical, legal, and social considerations. AI’s reliance on human-designed algorithms and datasets underscores a significant ethical challenge: the embedding of biases that can perpetuate or exacerbate inequalities, particularly in critical areas like criminal justice, healthcare, and employment that goes with Mensah (2023) and Rawas (2024).

Findings corroborate these concerns, highlighting AI’s dependence on human moral input as a critical limitation. While AI exhibits exceptional analytical capabilities, its lack of inherent morality necessitates robust human oversight and ethical integration into its design. Transparency, another critical issue emphasized in the literature, resonates with findings that point to the opaque nature of many AI systems, often referred to as “black boxes” as Ferrara (2024) notes. This lack of transparency risks discriminatory outcomes in high-stakes decision-making environments, underscoring the importance of comprehensive ethical guidelines to ensure fairness and equity. AI’s dual impact on privacy and surveillance emerges as a recurring theme. Its capacity to process vast datasets has raised alarms about individual freedoms,

with surveillance technologies like facial recognition systems posing risks of authoritarian misuse (Dilmaghani et al., 2019; Mobilio, 2023). Findings expand on these risks by illustrating how AI's integration into societal governance—through tools like city cameras—enforces laws while raising ethical questions about privacy and control. The literature further highlights "surveillance capitalism" as a pressing concern, where personal data becomes commodified, eroding individual autonomy (Zuboff, 2019). These challenges demand robust privacy regulations to safeguard human dignity and prevent the normalization of constant monitoring, which could stifle self-expression and foster a culture of conformity. AI's transformative potential in governance is well-documented, with applications in resource optimization, predictive analytics, and public service delivery enhancing societal welfare (Alshahrani et al., 2024). The findings affirm this potential, showcasing AI's role in identifying risks, predicting behaviors, and fostering social stability. However, reliance on biased data could undermine fairness, perpetuating disparities rather than resolving them. The integration of AI into social structures further underscores its dual role: while it can predict unrest and address biases, its pervasive use in surveillance may lead to societal divides and mistrust. Striking a balance between leveraging AI's benefits and mitigating its risks is essential for fostering trust and resilience. In domains like creativity and human-centric applications, AI serves as a powerful complement to human ingenuity. The literature highlights its role in automating repetitive tasks and enhancing innovation (Sreenivasan & Suresh, 2024; Zhai et al., 2024). Findings echo this perspective but caution against the potential stifling of creativity due to surveillance-induced conformity. While AI augments human capabilities, it cannot replicate emotional intelligence or intuition, which remain uniquely human attributes. In education and healthcare, findings emphasize AI's transformative potential in personalized learning and predictive medicine, aligning with literature that highlights its capacity to improve quality of life. Realizing these benefits requires strategic investments in governance and infrastructure to address operational challenges and resource constraints. The literature consistently calls for robust legal and ethical frameworks to guide AI's development (Awashreh & Ramachandran, 2024). Findings underscore the gap between technological advancements and regulatory oversight, emphasizing the need for global collaboration and adaptive regulations. Initiatives like the European Union's AI Act are progressive, but the findings advocate for a broader, inclusive approach to ensure AI's responsible use. Addi-

tionally, raising AI literacy among stakeholders is crucial to mitigating biases, promoting transparency, and fostering ethical decision-making at all levels. AI's integration into modern life encapsulates a paradox of immense promise and significant ethical dilemmas. While it has the potential to revolutionize governance, healthcare, and education, its misuse could erode societal values, compromise privacy, and deepen inequalities. The urgent need for ethical embedding, robust governance, and improved AI literacy emerges as a shared priority across the literature and findings. Aligning AI's development with human-centric values and regulatory oversight will be critical to harnessing its transformative power responsibly. As AI evolves, striking a balance between innovation and ethical accountability will shape its role as either a tool for progress or a source of disruption. Ensuring ongoing dialogue about AI's societal implications is essential for creating a future where technology enhances humanity rather than undermines it.

Suggested Strategies

Based on the findings, the article suggests the following strategies to ensure responsible AI use: a comprehensive approach that encompasses ethics, regulations, privacy, and collaboration is essential. Here are some strategies:

Establish Clear Ethical Frameworks

To ensure AI development aligns with human values, it is essential to create a unified ethical framework that prioritizes dignity, privacy, equality, and fairness. This framework should be adaptable to the evolving nature of AI technologies, allowing for flexible responses to new challenges. Cross-cultural collaboration is also crucial to ensure these ethical standards incorporate diverse cultural perspectives. Governments, international bodies, and organizations must work together to establish these standards. Transparency and accountability are fundamental; AI systems must be understandable, with independent review platforms in place to assess and hold organizations accountable for AI misuse.

Create Robust Legal and Regulatory Frameworks

Governments should enact comprehensive AI legislation that focuses on privacy, human rights, data protection, and prevents technological discrimination. These laws should promote responsible AI use while ensuring that human oversight is a key component of decision-making. As AI technology evolves rapidly, regulations must be regularly reviewed and updated to address emerging issues

and new risks. Additionally, integrating human oversight through "human-in-the-loop" systems ensures that AI decisions remain aligned with ethical standards and societal values.

Prioritize Privacy and Data Protection

Before deploying AI technologies, it is crucial to conduct thorough privacy and social impact assessments to understand their potential effects on privacy, freedom, and civil rights. These assessments should include strong privacy protections, especially in handling sensitive data. Transparency in AI data usage and algorithmic decisions is vital to avoid biases and ensure fairness. Furthermore, AI systems should be designed with robust security protocols to protect against unauthorized access and surveillance, safeguarding data privacy and confidentiality.

Encourage Ethical AI Design and Development

AI developers must be trained in ethics to ensure they design systems that adhere to moral principles. Ethical training should complement technical expertise, enabling developers to create AI that respects societal values. Ethical auditing mechanisms should also be established, where independent review bodies regularly assess AI systems for ethical compliance. By conducting regular audits, potential ethical violations can be identified early, ensuring AI technologies are developed responsibly.

Foster Public Awareness and Education

Public education campaigns are essential to raise awareness about the societal impacts of AI, such as its effects on privacy, ethics, and social norms. These campaigns should provide individuals with the knowledge to understand how AI works and the potential risks associated with it. Informed consent is critical, especially in sensitive areas like healthcare and surveillance, where individuals must be fully aware of how their data is being used by AI systems.

Leverage AI for Positive Social Impact

AI should be promoted for its potential to drive social welfare, particularly in healthcare, education, and environmental sustainability. AI can assist in disease prevention, resource optimization, and climate change mitigation, directly contributing to global challenges. In governance, AI can enhance decision-making, transparency, and efficiency, but its deployment should be closely monitored to prevent authoritarian misuse and ensure it benefits all members of society.

Monitor and Regulate Autonomous AI Systems

Clear boundaries for AI autonomy must be established, particularly in high-risk sectors like the military, to ensure that AI systems remain under human control. Fail-safes and oversight mechanisms should be incorporated to prevent any unintended consequences. Regulation of autonomous weapons is particularly urgent to prevent AI-driven violence and ensure that AI is not used in ways that harm civilians or violate human rights.

Enhance AI Collaboration Across Sectors

Interdisciplinary collaboration among technologists, ethicists, policymakers, and industry leaders is essential to ensure that AI is developed and deployed in ways that are socially responsible. These groups should work together to align AI technologies with ethical principles. Public-private partnerships can also play a vital role in sharing resources, knowledge, and best practices, helping to ensure the responsible development and deployment of AI across sectors.

Ensure AI Is Used for Equity and Inclusion

AI technologies should be designed and implemented to ensure fairness and equality. Algorithms must be rigorously tested to avoid reinforcing existing biases or inequalities, promoting fairness for all demographics. Additionally, AI development teams should be diverse, ensuring that different perspectives are reflected in the technology. This inclusivity will ensure that AI benefits all populations, including underrepresented and marginalized communities.

Create Accountability Mechanisms

Accountability mechanisms are necessary to ensure that AI is used responsibly. Legal and institutional frameworks should be established to hold individuals and organizations accountable for misuse, particularly in cases involving privacy violations or ethical breaches. Reporting systems should be set up to allow the public to flag unethical AI behavior, and independent regulatory bodies should investigate these cases to ensure that AI systems are used in a manner that aligns with societal values and rights.

By implementing these strategies, AI can be harnessed to improve key sectors such as healthcare, education, governance, and environmental management. At the same time, these measures will mitigate potential risks, promote human rights, and ensure that AI's development and deployment is ethical, transparent, and beneficial for all.

Conclusion and Recommendations

This research addresses the gap between ethical concerns in AI and the need for actionable strategies for its responsible use across sectors. Through field interviews, the study highlights the urgency of ensuring AI systems adhere to ethical standards, as their capabilities—such as rapid self-learning and data processing—pose significant risks to privacy, security, and human control. The consensus among participants is that AI lacks an inherent moral compass, emphasizing the need for a clear, unified ethical framework.

To bridge this gap, the study proposes several strategies, including the development of robust regulatory frameworks focused on privacy protection, transparency, and algorithmic accountability. It also recommends incorporating human oversight into AI decision-making and creating adaptable laws to keep pace with technological advancements. These strategies reflect the growing need for global collaboration and regulation to ensure AI aligns with human values and societal needs, fostering responsible integration across sectors.

The study also underscores AI's complex role in society, highlighting both its potential to drive progress and the significant challenges it presents. While AI offers benefits in sectors like healthcare, governance, and creativity, its integration must be handled carefully to avoid unintended consequences. The research calls for comprehensive ethical frameworks and regulatory oversight to ensure AI aligns with core values such as fairness, accountability, and transparency.

Critical issues like bias, privacy concerns, and governance must be addressed for AI's transformative potential to be fully realized. An inclusive approach combining technological, legal, ethical, and societal perspectives is essential. As AI evolves, collaboration among policymakers, industry leaders, and researchers is necessary to balance innovation with the protection of human rights and values. The success of AI's integration depends on the strength of regulatory and ethical frameworks that guide its use. Through sustained dialogue and adaptive policies, AI can be harnessed to enhance societal well-being while minimizing risks.

To ensure responsible AI development, key actions are required. Governments, industry leaders, and academic institutions must collaborate to establish globally recognized ethical guidelines, focusing on mitigating bias, ensuring fairness, and enhancing transparency, particularly in sectors like criminal justice, healthcare, and hiring. Policymakers must also create strong data protection laws to safeguard privacy while preventing unauthorized surveillance and data exploitation.

Ongoing collaboration among governments, the private sector, civil society, and academia is vital to ensure AI policies reflect diverse perspectives and address its complex implications. Regulatory frameworks must adapt to AI's rapid evolution, with continuous monitoring to address emerging risks, particularly concerning ethics, human rights, and societal impacts. Public awareness and education on AI's ethical, legal, and social implications are crucial, preparing future leaders for the responsible use of AI.

Theoretical Implications

The study of ethical frameworks in AI development enhances the understanding of aligning AI technologies with human values. By exploring diverse ethical perspectives, researchers can create models addressing fairness, transparency, and accountability, integrating these values into AI decision-making. These frameworks challenge traditional views of technology neutrality, proposing that AI should embed moral considerations in its design. This opens new avenues for exploring how moral principles can be applied across diverse cultural contexts.

Additionally, investigating the impact of regulatory frameworks on AI innovation provides insights into the balance between governance and technological progress. It challenges existing theories that favor minimal regulation and encourages the development of new models that consider both legal and ethical concerns while accommodating AI's evolving nature.

Finally, exploring AI's role in social welfare offers theoretical implications for understanding its potential to address global challenges. By incorporating AI's ability to optimize systems in sectors like healthcare, education, and sustainability, researchers can challenge conventional theories and propose new frameworks for technology as a tool for systemic change, aligning with ethical principles and promoting human well-being.

Practical Implications

The research on AI ethics, regulation, and social welfare has significant practical implications for how AI technologies are developed and deployed. For instance, integrating ethical frameworks into AI design ensures that AI systems are aligned with core human values such as fairness and transparency, reducing biases and increasing trust in these technologies. Additionally, establishing balanced regulatory frameworks can prevent the misuse of AI while still fostering innovation. In sectors like healthcare and education, AI can be applied to optimize

systems, improve outcomes, and enhance service delivery, contributing to more efficient and equitable societies. These practical applications emphasize the need for continuous development of ethical standards, legal guidelines, and AI strategies to address real-world challenges.

Policy Recommendations

Policymakers should prioritize the creation of comprehensive AI regulations that balance oversight with fostering innovation. This can be achieved by establishing clear ethical guidelines for AI development that ensure fairness, accountability, and transparency. Furthermore, policies should focus on privacy protection and the responsible use of AI, particularly in sensitive sectors like healthcare and surveillance. Governments and international bodies must collaborate to create adaptable frameworks that respond to the rapid pace of AI advancements while ensuring that human rights and societal welfare are safeguarded. Additionally, policies should promote public awareness and education to ensure informed consent and ethical AI deployment across diverse sectors.

Limitations and Directions for Future Research

This study offers valuable insights into Artificial Intelligence (AI) based on integrated field interviews. However, it has several limitations. The small sample size of 15 experts may not fully represent diverse perspectives across sectors and regions. Additionally, the rapid evolution of AI technologies means the findings could quickly become outdated. While the study highlights AI's reliance on human-defined ethical principles, it does not resolve how AI can align with these standards. Key concerns such as privacy, biases in algorithms, and potential cultural and regional differences in AI governance are also noted. Furthermore, the discussion on AI's potential for autonomy remains speculative, and the psychological impact on individuals requires further research. Given these challenges, future research should expand the scope and explore AI's broader societal and governance implications.

Future research should explore the long-term societal impacts of AI, comparative AI regulations, and AI's role in enhancing creativity. Additionally, studying AI's effects on marginalized populations and the ethical implications of autonomous systems like self-driving cars and drones is crucial for fairness and accountability. As AI continues to shape society, ongoing research and collaboration are key to maximizing benefits and minimizing risks.

Suggestions for future studies include: Ethical frameworks in AI development: Research on applying different ethical frameworks to AI technologies is essential for ensuring fairness, transparency, and accountability across sectors. Second, regulatory impact on AI innovations: Investigating the influence of regulatory frameworks on AI innovation is needed to balance oversight with progress while maintaining public safety and ethics. Third, AI for social welfare: Exploring AI's potential in sectors like healthcare, education, and sustainability can help scale its social benefits to address global challenges.

References

Alshahrani, A., Griva, A., Dennehy, D., & Mäntymäki, M. (2024). Artificial intelligence and decision-making in government functions: Opportunities, challenges, and future research. *Transforming Government: People, Process and Policy, 18*(4), 678–698. https://doi.org/10.1108/TG-06-2024-0131

Awashreh, R. (2024). Be aware: Navigating challenges in AI-driven higher education. *The International Journal of Interdisciplinary Educational Studies, 20*(1), 203–218. https://doi.org/10.18848/2327-011X/CGP/v20i01/203-218

Awashreh, R., & Ramachandran, B. (2024). Can artificial intelligence dominate and control human beings? *International Research Journal of Multidisciplinary Scope, 5*(4), 427–438. https://doi.org/10.47857/irjms.2024.05i04.01569

Baker, S. E., & Edwards, R. (2012). *How many qualitative interviews is enough?* National Centre for Research Methods Review Paper. Retrieved from https://eprints.ncrm.ac.uk/id/eprint/2273/4/how_many_interviews.pdf

Balasubramaniam, N., Kauppinen, M., Rannisto, A., Hiekkanen, K., & Kujala, S. (2023). Transparency and explainability of AI systems: From ethical guidelines to requirements. *Information and Software Technology, 159,* 107197. https://doi.org/10.1016/j.infsof.2023.107197

Bazen, A., Barg, F. K., & Takeshita, J. (2021). Research techniques made simple: An introduction to qualitative research. *Journal of Investigative Dermatology, 141*(2), 241–247.e1. https://doi.org/10.1016/j.jid.2020.11.029

Bayan, F. M. H. (2024). The ethics of AI: Navigating the moral dilemmas of artificial intelligence. *Arab Journal for Scientific Publishing*. Retrieved from https://www.ajsp.net/research/The%20Ethics%20of%20AI%20Navigating%20the%20Moral%20Dilemmas%20of%20Artificial%20Intelligence%20Revised_1.pdf

Brey, P., & Dainow, B. (2024). *Ethics by design for artificial intelligence*. University of Twente Research Information. Retrieved Nov 26, 2024, from https://doi.org/10.1007/s43681-023-00330-4

Church, R. M. (2002). The effective use of secondary data. *Learning and Motivation, 33*(1), 32–45. https://doi.org/10.1006/lmot.2001.1098

Dilmaghani, S. E., Brust, M. R., Danoy, G., Cassagnes, N., Pecero, J., & Bouvry, P. (2019). Privacy and security of big data in AI systems: A research and standards perspective. In *Proceedings of the 2019 IEEE International Conference on Big Data (Big Data)*, Los Angeles, CA, USA, 5737–5743. https://doi.org/10.1109/BigData47090.2019.9006283

Ferrara, E. (2023). *The butterfly effect in artificial intelligence systems: Implications for AI bias and fairness*. Available at SSRN: https://dx.doi.org/10.2139/ssrn.4614234

Ferrara, E. (2024). Fairness and bias in artificial intelligence: A brief survey of sources, impacts,and mitigation strategies. *Sci, 6*(1), 3. https://doi.org/10.3390/sci6010003

Hammarberg, K., Kirkman, M., & de Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction, 31*(3), 498–501. https://doi.org/10.1093/humrep/dev334

Mensah, G. B. (2023). Artificial intelligence and ethics: A comprehensive review of bias mitigation, transparency, and accountability in AI systems. *Africa Journal For Regulatory Affairs*. https://doi.org/10.13140/RG.2.2.23381.19685/1

Mobilio, G. (2023). Your face is not new to me – Regulating the surveillance power of facial recognition technologies. *Internet Policy Review*, *12*(1). https://doi.org/10.14763/2023.1.1699

Nah, F. F.-H., Zheng, R., Cai, J., Siau, K., & Chen, L. (2023). Generative AI and ChatGPT: Applications, challenges, and AI-human collaboration. *Journal of Information Technology Case and Application Research, 25*(3), 277–304. https://doi.org/10.1080/15228053.2023.2233814

Ossa, L. A., Lorenzini, G., Milford, S. R., Shaw, D., Elger, B. S., & Rost, M. (2024). Integrating ethics in AI development: A qualitative study. *BMC Medical Ethics, 25*(1), 10. https://doi.org/10.1186/s12910-023-01000-0

Qian, Y., Siau, K. L., & Nah, F. F. (2024). Societal impacts of artificial intelligence: Ethical, legal, and governance issues. *Societal Impacts, 3*, 100040. https://doi.org/10.1016/j.socimp.2024.100040

Rawas, S. (2024). AI: The future of humanity. *Discovery of Artificial Intelligence, 4*, 25. https://doi.org/10.1007/s44163-024-00118-3

Rittman, D. (2023). *A qualitative study that explores the implementation of artificial intelligence in integrated committee members* (Doctoral dissertation, GBT Technologie). https://doi.org/10.13140/RG.2.2.13088.39680

Roche, C., Wall, P. J., & Lewis, D. (2023). Ethics and diversity in artificial intelligence policies, strategies, and initiatives. *AI and Ethics, 3*(3), 1095–1115. https://doi.org/10.1007/s43681-022-00218-9

Sreenivasan, A., & Suresh, M. (2024). Design thinking and artificial intelligence: A systematic literature review exploring synergies. *International Journal of Innovation Studies, 8*(3), 297–312. https://doi.org/10.1016/j.ijis.2024.05.001

Smith, E. (2011). Special issue on using secondary data in educational research. *International Journal of Research & Method in Education, 34*(3), 219–221. https://doi.org/10.1080/1743727X.2011.615976

Suomala, J., & Kauttonen, J. (2022). Human's intuitive mental models as a source of realistic artificial intelligence and engineering. *Frontiers in Psychology, 13,* 873289. https://doi.org/10.3389/fpsyg.2022.873289

UAE Government. (n.d.). *UAE strategy for artificial intelligence*. United Arab Emirates Government. https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/uae-strategy-for-artificial-intelligence

Williamson, S. M., & Prybutok, V. (2024). The era of artificial intelligence deception: Unraveling the complexities of false realities and emerging threats of misinformation. *Information, 15*(6), 299. https://doi.org/10.3390/info15060299

Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: A systematic review. *Smart Learning Environments, 11*, 28. https://doi.org/10.1186/s40561-024-00316-7

Zhang, H., Wu, C., Xie, J., Lyu, Y., Cai, J., & Carroll, J. M. (2023). Redefining qualitative analysis in the AI era: Utilizing ChatGPT for efficient thematic analysis. *arXiv*. https://doi.org/10.48550/arXiv.2309.10771

Zuboff, S. (2019). Surveillance capitalism and the challenge of collective action. *New Labor Forum, 28*(1), 10–29. https://doi.org/10.1177/1095796018819461

Raed Awashreh is an Assistant Professor of Management & Public Administration at A'Sharqiyah University, Sultanate of Oman. He earned his degrees in Public Administration and Management from Flinders University, Australia, and Monterey, USA. He brings over 25 years of combined academic and industry experience, teaching undergraduate and postgraduate courses. He has authored 55 articles, several Book chapters, and 3 books spanning topics such as, human resources, governance, public policy, strategy, leadership, Entrepreneurship, Innovation, multidisciplinary linked AI, and management. In addition to his academic role, he serves as a consultant in business, management, governance, HR, and organizational development, working closely with government, private, and non-governmental sectors. (raed.raya2020@gmail.com)

Shahnaz Khademizadeh is an Associate Professor in Knowledge and Information Science department at Shahid Chamran University, Ahvaz, Iran. She holds a Ph.D. in Library and Information Sciences and has extensive experience in teaching, administration, and research. Her specialization in information retrieval, search strategies, recommender systems, machine learning, and scientometrics. Her recent research focused on analyzing book loan patterns to develop a recommender system using SQL Server, Matlab, and collaborative filtering methods. She has served as the head of her university's central library and supervises graduate students. Her work has been published in various journals and presented at international conferences. (s.khademi@scu.ac.ir)

Acknowledgments and Disclosures

The authors would like to acknowledge the use of ChatGPT for translating local languages, including Arabic and Persian, into English. This tool significantly contributed to enhancing the clarity and accuracy of the translations in this study.

جامعة الكويت
KUWAIT UNIVERSITY

مجلة دراسات الخليج والجزيرة العربية

فصلية علمية محكمة - تصدر عن مجلس النشر العلمي - جامعة الكويت
تعنى بنشر البحوث العلمية المتعلقة بشؤون منطقة الخليج والجزيرة العربية باللغتين العربية والإنجليزية
تأسست عام 1974، صدر العدد الأول في يناير عام 1975

الاشتراكات

الكـــويـــت	: للأفـراد 3 دينار	- للمؤسسات : 15 دينار
الدول العربية	: للأفـراد 4 دينار	- للمؤسسات : 15 دينار
الدول الأجنبية	: للأفراد 15 دولار	- للمؤسسات : 60 دولار

توجّه جميع المراسلات إلى

رئيس تحرير مجلة دراسات الخليج والجزيرة العربية

ص.ب: 17073 الخالدية - الرمز البريدي: 72451 الكويت

تلفون: 24986423 - 24984066 (965)

البريد الإلكتروني: jgaps@ku.edu.kw

موقع المجلة: http://journals.ku.edu.kw/jgaps

jgaps.kuniv : jgaps_ku : jgaps.ku

تتوافر نصوص البحوث كاملة لدى:

https://journals.ku.edu.kw/jgaps

EBSCO Publishing Products

المنظومة www.mandumah.com

Google Scholar

الكشاف العربي للاستشهادات المرجعية (ARCI- Web of Science)

ISSN: 0254-4288

ISSN Online: 2791-1586