**Unit 1: Introduction to Research Methods. The Scientific Investigation and Ethics in Computing**

# e-Portfolio Activity: Reflective Activity 1 – Ethics in Computing in the age of Generative AI

## Introduction

The rise of generative AI has brought about a paradigm shift in the field of computer science, raising critical ethical questions about the development and deployment of AI technologies. As Correa et al. (2023) point out, the global discourse on AI ethics is marked by a lack of consensus, with different countries adopting varied approaches to AI governance. This essay examines how different regions are responding to the generative AI revolution, discusses the ethical implications, and proposes a course of action for computing professionals.

## Regional Responses to Generative AI

The generative AI revolution has elicited diverse responses from different regions, reflecting their unique cultural, social, and political contexts. Correa et al. (2023) highlight that Western countries, particularly the United States and the United Kingdom, have prioritised principles such as transparency, accountability, and fairness in their AI governance frameworks. These countries have also been at the forefront of developing ethical guidelines for AI, as seen in the UK's AI Ethics Guidelines and the US's AI Bill of Rights (White House, 2022).

In contrast, Asian countries like China and Japan have focused on the principles of beneficence and non-maleficence, emphasising the importance of AI technologies in promoting social welfare and minimising harm (Correa et al., 2023). However, the lack of representation from regions such as Africa and South America in the global AI ethics discourse raises concerns about the inclusivity of these frameworks. As Correa et al. (2023) note, only a small fraction of AI governance documents come from these regions, highlighting the need for greater inclusivity in the global AI ethics debate (Jobin et al., 2019).

**Ethical Challenges of Generative AI**

Generative AI, with its ability to create content that mimics human creativity, presents unique ethical challenges. Deckard (2023) emphasises the importance of ethical thinking in AI, particularly in ensuring that AI technologies are developed and deployed in a manner that is fair, transparent, and accountable. However, the rapid pace of AI innovation often outstrips the development of ethical guidelines, leading to potential misuse and unintended consequences (Mittelstadt et al., 2019).

One of the key ethical concerns is the potential for generative AI to perpetuate biases and discrimination. As Correa et al. (2023) note, many AI systems are trained on datasets that reflect existing societal biases, leading to biased outcomes. This issue is particularly problematic in areas such as hiring, law enforcement, and healthcare, where biased AI systems can exacerbate existing inequalities (O'Neil, 2016). Additionally, the use of generative AI in creating deepfakes and misinformation poses significant risks to democratic processes and public trust (Chesney & Citron, 2019).

**Proposed Course of Action**

To address these ethical challenges, a multi-stakeholder approach is essential. Governments, industry leaders, and civil society must collaborate to develop robust

ethical frameworks that guide the development and deployment of generative AI. Drawing on the findings of Correa et al. (2023), I recommend the following actions:

1. Inclusive Global Governance: Establishing a global governance framework that includes representatives from underrepresented regions. This would ensure that diverse perspectives are considered in the development of AI ethics guidelines, addressing ethical blind spots and promoting inclusivity (Jobin et al., 2019).
2. Bias Mitigation: Implementing measures to mitigate biases in AI systems. This includes requiring developers to use diverse and representative datasets for training AI models and conducting regular audits to identify and address biases in AI systems (Floridi et al., 2018).
3. Public Awareness Campaigns: Launching public awareness campaigns to educate the public about the ethical implications of generative AI. This would help build public trust in AI technologies and encourage responsible use of generative AI (Binns, 2018).
4. Ethical AI Certification: Introducing an ethical AI certification program for AI developers and organisations. This program would certify that AI systems meet ethical standards, promoting a culture of responsibility and ethical innovation in the AI industry (Mittelstadt et al., 2019).

**Impact on Legal, Social, and Professional Issues**

The proposed actions would have significant implications for legal, social, and professional issues. Legally, a global governance framework would provide a clear and consistent set of ethical guidelines for AI development, reducing the risk of legal disputes and ensuring compliance with ethical standards (Mittelstadt et al., 2019). Socially, bias mitigation measures and public awareness campaigns would enhance

public trust in AI systems, mitigating concerns about bias and misuse (Floridi et al., 2018). Professionally, an ethical AI certification program would empower computing professionals to develop AI systems that align with societal values, fostering a culture of responsibility and ethical innovation (Binns, 2018).

**Conclusion**

The generative AI revolution presents both opportunities and challenges for the field of computer science. As Correa et al. (2023) and Deckard (2023) highlight, addressing the ethical implications of AI requires a collaborative and inclusive approach. By promoting inclusive global governance, bias mitigation, public awareness, and ethical AI certification, we can ensure that generative AI is developed and deployed in a manner that benefits society while mitigating potential risks. The actions proposed in this essay would not only address the ethical challenges of generative AI but also foster a more inclusive and responsible AI ecosystem.

## References


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