ePortfolio Activity: Reflective Activity 1 – Ethics in Computing in the Age of Generative AI

As Artificial Intelligence (AI) continues to expand across various industries such as healthcare, banking, retail, and manufacturing, it's essential to recognise its immense potential (Pazzanese, 2020). However, concerns about its potential adverse societal effects have also been raised. The ethical implications of generative AI are particularly significant in this context due to the substantial transformation that AI technology has brought about. The European Parliamentary Research Service (2020) has highlighted the ethical issues that must be addressed in light of these developments, emphasising the need for responsible AI use.

As an infrastructure engineer, I am not just a passive observer of the ethical implications of generative AI but a key player in developing morally responsible computing solutions. We must prioritise learning ethics in these fields and ensure that these advancements are used for the good of everyone while minimising risks. According to Lawton (2023), generative AI raises ethical concerns such as customer privacy, brand integrity, and worker displacement, which we, as infrastructure engineers, must address. The growth of AI applications has also created ethical considerations, such as privacy breaches, algorithmic discrimination, security issues, and transparency, as highlighted by Corrêa et al. (2023).

Deckard (2023) emphasises that AI ethics involves principles and values guiding the development and use of AI technologies, ensuring that AI is used relatively, transparently, and responsibly. Becoming an AI ethicist requires a strong foundation in ethics and technology. Keeping up with AI developments is crucial to understanding their implications and creating relevant and practical ethical guidelines.

Recognising the collaborative nature of AI ethics, I believe that working with experts from multiple disciplines, such as computer scientists, engineers, and legal and social scientists, is beneficial and essential. This collaboration is the key to developing ethical guidelines grounded in diverse perspectives. Each field brings a unique viewpoint and expertise, enriching the discussion and ensuring a comprehensive approach (Deckard, 2023). These contributions to this collaborative effort are not just invaluable but integral to the success of this endeavour.

The role of AI ethicists is pivotal as AI continues to evolve and impact every aspect of our lives. They have the power and responsibility to shape the future of AI, ensuring that it is used for the good of everyone while minimising risks. Your potential role as an AI ethicist is crucial in this endeavour. Reiterating the importance of ethics in developing and using AI technologies is not just essential; it's a reassurance that we are committed to technology's responsible and ethical use (Deckard, 2023).

As an infrastructure engineer, I am acutely aware of the importance of automating processes in my workplace, particularly in safeguarding the privacy of sensitive data and information of our customers and colleagues. My role involves designing, implementing, and maintaining the infrastructure, and I understand the significance of taking proactive measures to ensure data security and minimise the risk of privacy breaches. Robert & Schmidt (2023) have emphasised the importance of understanding system requirements and architectural issues and how to validate, deploy, and sustain software-reliant systems. By embracing automation, we can simplify our workflows and significantly reduce the chances of human error, which is often the leading cause of data breaches. Therefore, I am committed to exploring and implementing automation solutions that can help us better safeguard our data and maintain the trust of our customers and colleagues.

References:

Corrêa, N. K., Galvão, C., Santos, J. W., Del Pino, C., Pinto, E. P., Barbosa, C., Massmann, D., Mambrini, R., Galvão, L., Terem, E. & De Oliveira, Nythamar (2023). *Worldwide AI ethics: A review of 200 guidelines and recommendations for AI governance*. [online] Available from: https://www-sciencedirect-com.uniessexlib.idm.oclc.org/science/article/pii/S2666389923002416?via%3Dihub [Accessed 5 May 2024].

Deckard, R. (2023). What are ethics in AI? | BCS. [online] Available from: https://www.bcs.org/articles-opinion-and-research/what-are-ethics-in-ai/ [Accessed 5 May 2024].

Lawton, G. (2023). *Generative AI Ethics: 8 Biggest Concerns*. [online] TechTarget. Available from: https://www.techtarget.com/searchenterpriseai/tip/Generative-AI-ethics-8-biggest-concerns [Accessed 5 May 2024].

Pazzanese, C. (2020). Ethical concerns mount as AI takes bigger decision-making role. [online] Harvard Gazette. Available from: https://news.harvard.edu/gazette/story/2020/10/ethical-concerns-mount-as-ai-takes-bigger-decision-making-role/ [Accessed 5 May 2024].

European Parliamentary Research Service (2020). *The ethics of artificial intelligence: Issues and initiatives.* [online] https://www.europarl.europa.eu/. Available from: https://www.europarl.europa.eu/RegData/etudes/STUD/2020/634452/EPRS_STU(2020)634452_EN.pdf [Accessed 5 May 2024].

Robert, J. E. & Schmidt, D. (2023). *Applying Generative AI to Software Engineering: Navigating Ethical and Educational Landscapes*. [online] Available from: https://insights.sei.cmu.edu/blog/applying-generative-ai-to-software-engineering-navigating-ethical-and-educational-landscapes/ [Accessed 5 May 2024].