

Collaborative Discussion 1: Digitalisation – What are the security implications of the digital economy?

Peer Response:

Mario's post was the subject of my peer's response, and I provided him with my feedback in the following manner:

Hi Mario,

Your post starts by defining the Digital Economy rather than the 'fully digital enterprise', and you begin by acknowledging the need to understand it, citing Deloitte (2017) and Spremić & Šimunic (2018). Deloitte (2017) emphasises online hyper-connectivity, while Spremić & Šimunic (2018) focus on integrating digital technologies. Your analysis, which includes multiple perspectives, adds depth to understanding the Digital Economy. However, exploring the implications of these definitions on 'digital enterprise' would be beneficial. As Deloitte (2017) emphasise, digital transformation is rapidly changing the world we know. It involves using the latest technology to do what you already do, but better. This transformation is happening at breakneck speed and is revolutionising the global economy by replacing manual processes with digital ones or upgrading outdated digital technology.

Your views on cyber-security challenges and concerns with a fully digital enterprise introduce Wei et al.'s (2019) definition of fully digital enterprises, emphasising the importance of cybersecurity due to evolving technologies. It outlines common cyber threats, including data breaches, privacy concerns, and supply chain attacks. Your post effectively highlights the crucial role of cybersecurity in the digital economy, aligning with the increased dependence on technology.

Your post also addresses Small to Medium Enterprises (SMEs) budget constraints in adopting digitalisation and implementing strong security measures. The acknowledgement of budget constraints for SMEs, as Zhang & Wang (2022) state, is crucial, providing a realistic perspective on the challenges faced by smaller businesses in the digital economy.

You conclude your post by stating that global electricity generation may drop to as low as 48% by 2050. You cite recent advances in photovoltaic research as the basis for this claim. Additionally, you point out that renewable energy sources have significant environmental benefits. This connection between the digital economy and global challenges is essential. As Zhang et al. (2022) have noted, globalisation has positively impacted the growth of renewable energy, particularly in countries with high, upper-middle, and low incomes.

References:

- Deloitte (2017). *What is digital economy?* [online] Deloitte Malta. Available at: <https://www2.deloitte.com/mt/en/pages/technology/articles/mt-what-is-digital-economy.html>.
- Spremić, M. & Šimunic, A. (2018). *Cyber Security Challenges in Digital Economy*. Available at: https://www.iaeng.org/publication/WCE2018/WCE2018_pp341-346.pdf.
- Wei, J., Sanborn, S., Slaughter, A. (2019). *Digital transformation and the utility of the future | Deloitte Insights*. [online] Available at: <https://www2.deloitte.com/us/en/insights/industry/power-and-utilities/digital-transformation-utility-of-the-future.html>.
- Zhang, G. and Wang, T. (2022). Financial Budgets of Technology-Based SMEs From the Perspective of Sustainability and Big Data. *Frontiers in Public Health*, 10. doi:https://doi.org/10.3389/fpubh.2022.861074.
- Zhang, Y., Su, L., Jin, W. & Yang, Y. (2022). The Impact of Globalization on Renewable Energy Development in the Countries along the Belt and Road Based on the Moderating Effect of the Digital Economy. *Sustainability*, [online] 14(10), p.6031. doi:https://doi.org/10.3390/su14106031.

During our discussion, my tutor inquired about the potential for AI to expedite just-in-time integration to meet demands. In response, I shared my thoughts on the matter as follows:

Hi Dr Nawaz,

Thank you for your comments. I believe that integrating artificial intelligence can speed up the process of fulfilling demands for 'just-in-time' delivery. Perifanis & Kitsios (2023) state that incorporating AI into business and IT strategies can give organisations a competitive edge. However, some companies may find it challenging to fully leverage the potential of AI, while others have already implemented it successfully. A comprehensive analysis of 139 peer-reviewed articles explores the performance benefits, success factors, and adoption challenges associated with AI. While AI capabilities offer transformative advantages, managing resources and governance can be complex.

As The Enterprisers Project (2016) notes, digital transformation involves integrating technology into all business areas, leading to fundamental changes in how businesses operate and deliver value to customers. For any business, big or small, it is essential to remain competitive and relevant. Digital transformation should start with a problem statement, a clear opportunity, or an aspirational goal, and it requires organisations to challenge the status quo, experiment, and get comfortable with failure.

Digital transformation aims to improve engagement with employees and customers while increasing competitiveness. It involves integrating computer-based technologies into an organisation's products, processes, and strategies, requiring an overhaul of all

aspects of the organisation. This includes supply chains, workflows, employee skill sets, organisational charts, customer interactions, and value propositions. Successful digital transformations lead to ongoing business benefits and prepare organisations for future technologies. However, adaptation requires cultural adjustment as well as technology adoption. Agility is critical to dealing with change and uncertainty, as AI is poised to revolutionise digital transformation (Moore & Pratt, N.D).

References:

- Perifanis, N.-A. & Kitsios, F. (2023). Investigating the influence of artificial intelligence on business value in the digital era of strategy: A literature review. *Information*, [online] 14(2). doi:<https://doi.org/10.3390/info14020085>.
- The Enterprisers Project (2016). *What is digital transformation?* [online] Enterprisersproject.com. Available at: <https://enterprisersproject.com/what-is-digital-transformation>.
- Moore, J. & Pratt, M. K. (N.D.). *What is Digital Transformation? Definition, Examples, Strategy*. [online] Available at: <https://www.techtarget.com/searchcio/definition/digital-transformation>.