**Summary post**

Industry 4.0 denotes the progressive integration of technology and computing within diverse economic sectors, marked by widespread adoption of digitization, enhanced interconnectivity, big data analytics, and cloud computing (Schwab, 2016; Peres et al., 2020). In my initial post, I outlined how Industry 4.0 is impacting healthcare, including some of the associated benefits (such as increased efficiency, improved access, and better decision-making) as well as the many potential risks (namely due to technical failures and cybersecurity threats) (Barbour et al., 2023). To illustrate the later, I used an example from the UK National Health Service, where a ransomware attack on a pathology laboratory led to severe system disruption, data breaches, and economic and reputational losses (NHS England, 2024).

Georgios added that cybersecurity accidents are a growing threat to healthcare organisations (Jalali and Kaiser, 2018; Ghafur et al., 2019). He also references a manuscript with specific examples of 6 cybersecurity breaches in the Portuguese healthcare sector from 2017-2022 (Portela et al., 2023), including a modelled estimate of potential financial losses. These amount to >2 million euros, helping to shed light on the major financial implications of poor cybersecurity procedures (besides the reputational and operational damages).

Martyna provided further support to the argument that healthcare organisations are especially susceptible to cybersecurity threats and to associated costs given the large amounts of health data under their control (Duguin, 2021). She also suggests potential efforts to minimise these risks by reducing software vulnerabilities, including proactive measures such as routine testing and regular security updates (Shinkle et al., 2021; Verma, 2024). Besides this, she also mentions staff training and education as an important measure to help prevent breaches, particularly those resulting from phishing attacks (He et al., 2021).

In sum, the Industry 4.0 revolution has resulted in increased adoption of technology and digitisation within the healthcare sector, which may bring about large benefits but also significant risks. Proactive action towards increased cybersecurity will be paramount so that the final risk-benefit balance remains a positive one.

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