Initial Post

The Fourth Industrial Revolution is transforming industries and societies through rapid integration of digital, physical, and biological technologies. While it shares the transformative impact of past revolutions, it stands out for its unprecedented speed, blending advanced technologies, and profound socio-economic effects. However, it also brings challenges, such as rising wealth disparity, as demand for high-skill roles increases while opportunities for lower-skill positions diminish.

Despite these shifts, some roles, particularly in mental health care, resist automation due to their reliance on complex human interaction and empathy (Borcherds, 2018). Yet, AI in mental health supports professionals through predictive tools and therapeutic applications, enhancing care quality without replacing human insight.

AI-driven mental health apps and predictive tools improve care by analysing users' digital interactions to detect early signs of conditions like depression. These tools track behaviours like typing patterns and call frequency to monitor mental health changes. Chatbots, such as Woebot, provide accessible support, while adaptive apps offer personalized therapy suggestions. Though they do not replace therapists, these tools enhance accessibility, encourage proactive care, and support personalized interventions (Ornell *et al.*, 2020). However, they also raise ethical concerns around data privacy and security.

A recent incident involving BetterHelp, an online therapy platform, demonstrates the risks associated with information system failures in digital mental health. In 2023, the

FTC fined BetterHelp $7.8 million for sharing sensitive user data with advertisers like Facebook, despite promising privacy. This breach eroded trust in BetterHelp and similar digital mental health platforms, as users feared confidentiality risks. The financial hit extended beyond the fine, as customer retention and revenue were impacted by negative perceptions of the platform's ethics (Neporent, 2023). Industry-wide, the incident underscored the need for strong data policies and transparent systems in digital health. As AI becomes essential in mental health care, prioritizing privacy and ethical standards is crucial for maintaining user trust and support (Morley et al., 2020).

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