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Charting the Course: A Framework for Integrating Industry 5.0 Technologies into Higher Education.
A Case Study in a Cybersecurity Class

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Abstract

This paper explores the transformative potential of Industry 5.0 in higher education, presenting a conceptual framework for its effective integration. Emphasising immersive learning experiences (ILX), hyper automation and cybersecurity, the framework provides a roadmap for leveraging advanced technologies to enhance learning outcomes and student engagement. The framework was validated via an innovative, game-based learning experiment for cybersecurity students at Torrens University Australia, called Safe Passage. The game created an immersive, interactive environment in which students grappled with real-world cybersecurity challenges, thereby augmenting their theoretical understanding with practical application. Results from the implementation demonstrated the framework's potential in fostering deeper comprehension, enhancing student engagement, and facilitating practical-skill acquisition. The success of this approach within cybersecurity education suggests its potential applicability across various disciplines, indicating a promising future for Industry 5.0 in higher education. This paper contributes to the growing discourse on technology's role in education, underlining the transformative potential of Industry 5.0 in creating more dynamic, engaging and relevant learning environments.

Keywords: Industry 5.0, higher education, immersive learning experience, automation, cybersecurity, game-based learning