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Threats of Extended Reality (XR) Applications to Teaching and Learning: Instructors' perspectives

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Abstract
The emergence of Extended Reality (XR) applications, encompassing Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR), signifies a transformative shift in teaching and learning paradigms. However, this growing technology brings with it a spectrum of threats that could disrupt its effectiveness and equitable distribution in educational settings. This study explores the threats of XR in teaching and learning through a qualitative method approach. Nine main threats of XR applications to teaching and learning were identified based on the findings from semi-structured interviews. These encompass privacy and intellectual property, risks towards cybersecurity, health, safety, content appropriateness, distractions, accessibility issues, loss of human interactions, and dependence on technology. © 2024 IEEE.

Author Keywords
Augmented Reality; Education; Extended Reality; Mixed Reality; Virtual Reality

Index Keywords
E-learning, Health risks, Learning systems, Mixed reality, Teaching; Educational settings, Extended reality, Intellectual property risks, Learning paradigms, Mixed reality, Qualitative method, Semi structured interviews, Spectra's, Teaching and learning, Teaching paradigm; Augmented reality

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