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Editorial: Re-imagining learning spaces with immersive digital environments

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Editorial on the Research Topic

[Re-imagining learning spaces with immersive digital environments](#)

Introduction

As emerging technologies continue to revolutionize education, the potential of immersive learning experiences to augment teaching and learning outcomes calls for a critical re-think learning spaces. Advances in emerging technologies, as such artificial intelligence and immersive virtual environments, present new pedagogies, environments, challenges, possibilities, and tensions across learning spaces (Cooper and Thong, 2018; Cooper, 2023). This editorial highlights the significance of recent studies that shed light on the design, development, and educational applications of emerging digital technologies. The research in this issue contributes valuable insights to this field, addressing important aspects like supporting English Language Learners (ELLs), overcoming challenges in online learning, measuring acceptance of web-based Virtual Reality (WebVR) tools, and designing immersive learning experiences for history education.

Supporting English language learners through educational robots

Louie et al. focuses on the potential of educational robots to support language acquisition. Parents were broadly positive for educational robots to play a supportive role in their children's school experience. While children exhibited enthusiasm toward the idea of having a robot in school, some voiced concerns about possible disruptions caused by the presence of robots. School educators recognized the potential of educational robots in assisting teachers with instructional needs, but they too raised concerns. The strong desire for robots indicates potential positive impact educational robots could have for improving English language acquisition for ELLs.

Addressing struggles in online learning for undergraduate biology students

Cannon et al. examines the struggles faced by undergraduate biology students during the transition to emergency online instruction due to the COVID-19 pandemic. Through surveys and open-ended responses, the researchers identified common challenges, such as shifts in class formats, effective study habits, time management, and increased external commitments. The findings emphasize the crucial role of instructors in supporting students' learning by promoting self-efficacy, providing resources, and creating a supportive learning environment.

Measuring acceptance of WebVR tools in education

Estrada et al. investigate the acceptance of a web-based virtual reality tool, Virtual Campus, in a study that utilizes the Technology Acceptance Model (TAM). By analyzing variables related to online contexts, future perceptions, skills development, and appreciation, the research demonstrates that participants favorably accept WebVR technology as an alternative teaching approach.

Designing immersive learning experiences for history education

Lastly, Barbara focuses on designing an immersive virtual reality learning experience to teach cultural heritage to students aged 11–12 years. Through collaboration with teachers, the research project develops a virtual reality navigation experience that integrates history learning. The study emphasizes the importance of aligning the immersive learning experience with educational objectives, ensuring authenticity, ease of navigation and utility in the classroom.

References

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Conclusion

Educators, researchers and designers should consider different pedagogical elements when implementing the use of digital technologies that feasibly aligns with their intended educational goals. The studies highlighted in this editorial offer valuable insights into the use of digital technologies across learning spaces. From supporting ELLs to addressing challenges in online learning, measuring acceptance of WebVR tools, and designing immersive experiences for history education, these studies contribute to the growing body of knowledge in this field. By embracing emerging technologies and incorporating pedagogical considerations, stakeholders can unlock the transformative potential of digital learning, fostering engaging and impactful educational experiences for learners.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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