

Immersive technology in maternity care.

Jones DONOVAN, Fealy SHANNA

Résumé

Information technology is rapidly changing and challenging the traditional pedagogical approaches to teaching and learning. Virtual and Augmented Reality (AR/VR) technology has the potential to provide repeatable, immersive contextual and situated learning experiences. However, the use and application of VR and AR in midwifery and maternity education is yet to be established. The aim of this presentation is to describe the development of “The Road to Birth” (RTB) an innovative educational tool using VR/AR technology to complement the learning of undergraduate midwifery students.

Combining both midwifery and technology expertise the RTB is a multi-platform Augmented Reality program that essentially supplements the real world using virtual objects. The RTB was designed to provide midwifery students with a virtual, internal anatomical view of pregnancy, its physiological progression and fetal and placental positions. As a teaching tool AR affords the ability to deeply engage students enhancing their learning and retention of midwifery-based anatomy.

Whilst the road to birth originally conceptualised for use by midwifery students, educational content may appeal to broader undergraduate health professional students and registered health professionals as a tool for providing education in understanding the physiological and anatomical changes during pregnancy. Three research projects are currently underway at the University of Newcastle, to test the pedagogical validity of the RTB program for midwifery students investigating student knowledge retention and transfer as well as its application for visual learning and as a distance education tool.

The Application of AR innovations for midwifery education and practice has the potential to influence not only the way health professional students learn but importantly has the potential to change the way we communicate with pregnant women.