

Virtual Reality Technologies Supporting Medical Education

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Abstract

Integrating new technologies in current practice marks an important step in medical education. The main benefit is that future physicians may improve their skills in a safe environment and consequently for the future, improve the patient care outcomes. Using Virtual Reality, the training of the medical learners is done without any risk for the patient. The paper will describe the VR/ER technologies for the medical domain and different scenarios will be presented for the medical students or for the professionals involved in continuing education to gain better skills in digital health. Will discuss how Artificial Intelligence can personalize the trainees' experiences by adjusting the content and the difficulty of the activity based on their experience. A summary of support new technologies will be presented with examples in medical training. For enhanced training and skill development VR provides realistic, risk-free environments for practicing complex procedures, improving surgical skills, and enhancing diagnostic abilities. It allows for repeated practice of rare or challenging scenarios, leading to increased confidence and competence. Virtual Reality can provide detailed, real-time feedback, allowing for immediate correction and improvement.

Keywords: Virtual Reality (VR); Technologies; Medical Education; Training; Artificial Intelligence.

