Medical Virtual Reality

The ICT MedVR Lab explores and evaluates areas where VR can add value over traditional assessment and intervention approaches. Areas of specialization are in using VR for mental health therapy, motor skills rehabilitation, cognitive assessment and clinical skills training

SELECTED RESEARCH PROJECTS

SimCoach

SimCoach is a web-based virtual human designed to provide an *anonymous* and *accessible* way to overcome some of the existing resistance to seeking care, to facilitate communication about mental health issues, and to help soldiers, veterans and their families to realize that there are resources available for them. SimCoach can ask a series of questions about the user's symptoms and provides access to relevant resources.

Virtual Iraq/Afghanistan

Virtual Iraq/Afghanistan, delivers virtual reality exposure therapy for treating post-traumatic stress. Currently in use at over 60 clinical sites, including VA hospitals, military bases and university centers the *Virtual Iraq/Afghanistan* exposure therapy approach has been shown to produce a meaningful reduction in PTS symptoms.

Stress Resilience In Virtual Environments (STRIVE)

STRIVE is a pre-deployment approach to understanding and training troops for combat stress. It includes a realistic combat experience portrayed within a virtual reality story and an interaction with an intelligent virtual mentor that can explain how the brain and the body react to stress and present relevant exercises for managing it.

Games for Rehabilitation

ICT's Games for Rehab Lab focuses on the creation of virtual reality and game-based tools that can improve both assessment and training. Current prototypes include *Jewel Mine*, a rehabilitation therapy tool designed to motivate patients with stroke, traumatic brain or spinal cord injuries.

Virtual Patients

This effort builds virtual standardized patient applications for clinician training that integrate models of emotion and personality into the language and state of the character, as well as investigates the use of dramatic interactive narratives involving virtual patients in order to elicit engagement in learning.

At the University of Southern California Institute for Creative Technologies leaders in artificial intelligence, graphics, virtual reality and narrative advance low-cost immersive techniques and technologies to solve problems facing service members, students and society.

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