Mixed Reality Learning Simulations

- VRHE

The virtual reality history environment (VRHE) research track is a continually growing and interactive multi-player e-learning simulation for training underserved and disadvantaged children in STEM skills while also providing knowledge about their cultural history. Studies suggest that multi-user e-learning simulations such as video games can be harnessed as a strong learning motivator, if they are designed for the learner’s demographic and cultural background and can infuse the learning with mystery, action, and drama. The goal of VRHE is to revolutionize STEM learning through virtual reality experiences that are emotionally exciting, substantially realistic, and based on accurate cognitive science about how people learn.

- iVi

The Interactive virtual instructor (iVi) research track is a multidisciplinary endeavor that continually improves ‘artificial intelligent’ instructor capabilities from 3D characters and anthropomorphic robot trainers to 3D learning toys that teach. The iVi is driven by sound engineering, cognitive science, and pedagogical principles.

- MRLE

The Mixed Reality Learning Environment (MRLE) research track investigates how digital environments from Augmented Reality and Augmented Virtuality to “smart” learning environments influences informal learning. The multidisciplinary researchers who participate in this research track investigate multi-modal methods of learning including digital vision, sound, smells, and tactile feedback for improving human learning and human cognition.

- SiS

The Smart learning Spaces (SlS) research track investigates the implications of “intelligent” learning and training spaces including smart homes, smart classrooms, smart work environments, learning vehicles, and more. Researchers abandon the traditional mouse and keyboard interfaces for interacting with physical learning spaces and investigate innovative approaches to interaction.