

TOPSS-VW

Transitional Online Post-deployment Soldier Support in Virtual Worlds

TOPSS-VW also known as “Coming Home,” explores the domains of persistent, easily accessible virtual worlds for delivering 3D tele-health experiences. Using the Second Life platform, we have created a specialized online virtual world for the benefit of post-deployment soldiers who are reintegrating to civilian life. This is often a difficult time for many soldiers due to both physical and psychological challenges. We believe the virtual world has great potential to mitigate many of these issues by providing a dedicated space where soldiers can interact, find camaraderie, and connect to resources for healing and transition.



The center of the veterans’ social space is Chicoma Lodge. The design of this inviting lodge is patterned after National Park lodges of the American West. The central area, the Great Hall, contains comfortable seating areas around fireplaces, and a warm decor that includes hunting, skiing, cowboy and Native American motifs. Additional seating areas on two decks to the rear of this space afford serene views of a lake fed by a cascading mountain waterfall, as well as wildlife indigenous to the area. Two large wings extending from the Great Hall are devoted to a wide range of games that encourage social interaction. We have designed our space as a connected social network where soldiers can find camaraderie with others who have gone through recent wartime experiences. Thus, this environment serves a function similar to the twentieth century VFW Halls. In addition, soldiers access therapeutic activities.

Coming Home builds on two of ICT’s research strengths: intelligent virtual humans and immersive virtual world expertise. We have expanded ICT’s virtual humans into the persistent VW domain, where they must remain logged in and active weeks on end. These embedded conversational agent “avatars” serve as “always on” helpers, guides and storytellers, enhancing player experience and providing helpful information and wayfinding.

We have also expanded current virtual world capabilities by creating activities that provide physical – “real” – world benefits to participants. For example, inspired by breathing techniques of many relaxation therapies, as well as research in biofeedback and advice from military social work experts, we have created and tested a virtual jogging path where a veteran uses controlled breathing in an ordinary headset microphone to cause their avatar to run in the virtual world. Results from our study on this activity have shown a significant reduction in stress markers for participants. We expect users who engage in this enjoyable practice regularly will derive real world stress reduction benefits.

We have pioneered the implementation of Mindfulness-Based Stress Reduction (MBSR) delivery within the virtual world. This is a Complementary and Alternative Medicine (CAM)-based intervention developed by Jon Kabatt-Zin, with over two decades of clinical research that validate its benefits for pain mitigation, stress reduction, and overall psychological resilience. With our MBSR experts from the University of San Diego Center for Mindfulness, we have held two experimental 8-week sessions thus far in the virtual world for therapists and stakeholder. We plan to enroll veterans in 2012 in the virtual world Mindfulness classes through our partnerships with AMEDD at Ft. Sam Houston, and the National Intrepid Center of Excellence in TBI and Psychological Health (NICoE) in Bethesda MD.

We have also created a Warrior’s Journey experience that consists of interactive narratives about the life and ideals of classic warriors, such as the Cheyenne Dog Warrior and the Samurai, designed to be relevant to today’s soldiers. The capstone of the Warrior’s Journey is an interactive authoring system where veterans can create their own Warrior’s Journey story that others can experience in the virtual world, including an intelligent agent that can be questioned and which can relay the veteran’s own facts and backstory to their authored Warriors Journey.

Visit cominghomecenter.org to learn more about TOPSS-VW.

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