Virtual Reality in Mountain Survival

Hanan Yaniv and Susan Crichton University of Calgary, Calgary, AB, Canada

Working and traveling in the mountains comes with a level of risk, but that risk can be diminished with knowledge. This knowledge takes two significant forms: technical understanding (for example, awareness of what to take, how to respond, what to observe) and mindset (for example, a commitment to be prepared even if it means carrying little used, bulking equipment just in case it might be needed, etc.). Often mindset is informed by experience rather than training while technical knowledge is typically acquired through formal instruction. Recognized in the literature as the safest and most efficient way to train people in hazardous or complex situations, simulations provide realistic, case based scenarios that allow learners to learn technical expertise while honing their mindset.

Emerging technologies allow the flexibility and power to bring complex simulations to desktop and home computers via the Internet. This poster shares an innovative winter mountain safety training simulator built in a 3-D, virtual reality environment and designed using a model named S-AI-L: Simulated, Adventure Inspired Learning (Yaniv & Crichton 2008). The goal of S-AI-L is to engage learners in real life scenarios by having them make decisions and facing the consequences of those decisions.