

Guest Editorial

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THIS ISSUE OF *CyberPsychology & Behavior* is dedicated to a representative group of papers presented at the recent Advanced Technologies in Mental Health/Rehabilitation symposium held as part of the 10th annual Medicine Meets Virtual Reality (MMVR) Conference in Newport Beach, California (www.amainc.com). The 2-day symposium, which has been held for the past 6 years, has seen an exciting increase in both the number and diversity of presentations given, as well as an increase in controlled studies presented. When virtual reality (VR) first came on the scene for mental health applications, it was mainly devoted to use in treating specific phobias and eating disorders. Many controlled studies have been completed in diverse areas such as treatment of specific phobias, eating disorders, and male erectile disorders; distraction during painful medical procedures; neuropsychological evaluation; and teaching of skill sets.

In the first paper of this issue, McComas, MacKay, and Pivik report on a controlled study that was undertaken to test VR's effectiveness in training elementary school children on safe street-crossing behavior. It was found that VR could be a useful tool in training children. Lee, Ku, Jang, Kim, Choi, Kim, and Kim report on two VR systems for treatment of public speaking: one using image-based rendering and the other using digitized video. Advantages and disadvantages of each type of system are reviewed, and details are given on the creation of each environment. Moore, Wiederhold, Wiederhold, and Riva summarize results of psychological data collected while nonphobic participants were exposed to VR

environments created to treat patients with panic and agoraphobia. Some interesting observations were seen during exposure to some of the environments, indicating that during active involvement with particular VR worlds, even nonphobics may experience continued physiological arousal. Kuntze, Stoermer, Mueller-pahn, and Bullinger discuss the ethical dilemmas that may arise when virtual worlds are used in therapy, and they ask us to consider the ramifications of virtual worlds becoming too real. They also communicate the idea, as have previous presenters, that a code of ethics should be considered for the virtual community. Broeren, Bjorkdahl, Pascher, and Rydmark explore the use of VR and haptics in patients who have suffered a stroke. Results with three patients who had suffered left hemisphere damage show potential for using VR in this setting. Trepagnier, Sebrechts, and Peterson outline the use of a head-mounted display with an affixed eye tracking system for assessing face recognition in patients diagnosed with Asperger's disorder, and discuss the difficulties encountered in the study. Preliminary findings with five individuals seem to suggest an impairment in face processing, and implications for the use of VR in future interventions are proposed. Lastly, Riva summarizes VR papers that have been published in books and journals over the past 10 years. He also discusses some issues that are important for the field's expansion.

Because of the growth experienced by the Advanced Technologies in Mental Health/Rehabilitation Symposium, it was decided that the symposium should be spun off into its

own separate conference. The 2003 symposium will be organized by the Interactive Media Institute, a nonprofit corporation that helps educate the public and disseminate information on the uses of advanced technologies in mental health, rehabilitation, and disabilities. The mental health conference will be held on January 21–22, 2003, with MMVR being held January 22–25, 2003. More information may be found as development proceeds at the MMVR website (www.amainc.com) or under the Interactive Media Institute website link (www.vrphobia.com). We are interested in enlarging the number of tools and methodologies that healthcare providers, clinicians, social scientists, and mental health researchers

can use to help patients and others through multimedia. We should continue to carefully study and learn from VR and multimedia techniques being developed by the military, industry, and computer graphic, and entertainment groups. These tools need to be easily accessible, affordable, and provide distinct advantages to conventional healthcare practices.

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