

Editorial

CyberTherapy 2006

THIS ISSUE of *CyberPsychology & Behavior* features abstracts from the 11th Annual CyberTherapy Conference, "Virtual Healing: Designing Reality." Organized by the Interactive Media Institute (IMI), a 501(c)(3) non-profit organization, in cooperation with the CyberPsychology Lab of University of Quebec in Outaouais (UQO), the conference was held June 12–15, 2006, in Gatineau, Canada.

Since its commencement 11 years ago, this conference has developed from virtual reality (VR) alone, to now include such innovative technologies as robotics, E-health adaptive displays, and videogames. The collection of abstracts from this conference is confirmation of this growth, with studies relating to the use of a wide array of advanced technologies.

"Virtual Healing: Designing Reality," this year's theme, recognizes the importance of two related types of scientific studies: clinical applications of VR and other technologies, and experimental research into the powerful impact VR has on behavioral healthcare, medicine, and neuroscience. In addition, changes that have occurred in the past decade are emphasized in this year's theme; that which once only existed in the realm of science fiction has now increasingly become part of our reality. A crucial objective of all our work is to motivate more clinicians and technical professionals to design and test VR tools, improving the overall outcome of cybertherapy interventions. By utilizing technology for training and therapy, we will improve existing protocols and, ultimately, disseminate care to a wider segment of the population.

During a "Cyberarium," many presenters at the conference displayed their own VR material. This show-and-tell presentation, which was open to the press, featured a variety of VR products and demonstrations on how these tools can be applied for therapeutic purposes.

As keynote speaker, Dr. Michel Fleury offered us the opportunity to gaze into future areas of applications for virtual humans. The 2nd Annual CyberTherapy Excellence in Research Award was presented to the person who demonstrated outstanding achieve-

ment in the fields of VR and behavioral healthcare. In addition, the CRC-Clinical Cyberpsychology New Investigator Award was presented to the person with an outstanding methodological study at the conference; the recipient had to be a researcher who was new to the field of cyberpsychology. The award was delivered by Dr. Stéphane Bouchard, Chairholder of the Canada Research Chair in Clinical Cyberpsychology, and included a certificate and a check of \$1000. Finally, this year's conference awarded three Student Poster Awards, each worth \$250; posters were judged for scientific merit and ease of presentation by the conference co-organizers, Drs. Brenda K. Wiederhold and Stéphane Bouchard, as well as the conference workshop chair, Dr. Skip Rizzo, and scientific chairs, Drs. Giuseppe Riva and Russell Shilling.

This year's conference topics included VR applications to such varied disorders as anxiety, addictions, autism, schizophrenia, and post-traumatic stress disorder. Furthermore, VR for neurorehabilitation and physical rehabilitation was explored, as was VR for other areas such as prosthetics and orthotics training, pain, cybertraining, education, and simulations. In addition to VR, the conference's focus has expanded to include presence, neuropsychology, and new applications.

In pre-conference workshops, our workshop chair, Dr. Stéphane Bouchard, provided both beginning and advanced pre-conference workshops, allowing those new to the area as well as more seasoned researchers to gain additional knowledge. Workshop 1, "Basic Issues about Virtual Reality and its Clinical Applications," chaired by Drs. Evelyn Klinger and Sophie Côté, presented concepts that are essential for using VR in clinical applications such as a basic definition of VR, what kind of equipment is involved, what is the feeling of presence, what is cybersickness and how to prevent it, and how to get or create virtual environments. Workshop 2, "Virtual Reality and Pain Reduction," chaired by Drs. Dave Thomas and Jeffrey I. Gold, presented the empirical evidence of the potential of VR to distract people from acute pain. Drs. Albert

"Skip" Rizzo and Maria Schulthe chaired Workshop 3, "VR and Neurological Assessment/Rehabilitation," which introduced an overview of the field of neuropsychological assessment and VR applications in cognitive rehabilitation, and detailed their strengths and limitations. In Workshop 4, "Virtual Reality and the Treatment of Anxiety Disorders," Drs. Brenda K. Wiederhold and Stéphane Bouchard reviewed literature on this form of therapy, as well as presented treatment packages and tips to conduct effective exposure. In Workshop 5, "Virtual Reality and the Treatment of Eating Disorders & Addictions," Drs. Giuseppe Riva, Rosa-Maria Banos, Patrick Bordnick, Steve Baumann, and Ken Graap detailed the experiential approach of VR by describing a few empirical studies, followed by the presentation of two different treatment protocols. Drs. Tamar Weiss and Heidi Sveistrup (with Drs. Joyce Fung and Mindy Levin) chaired Workshop 6, "Virtual Reality and Motor Rehabilitation," which presented the principles of VR-based therapy for motor rehabilitation in terms of a comparison with conventional intervention.

The conference itself featured an impressive 15 symposia. Symposium 1, chaired by Drs. Patrice Renaud and Richard Laws, featured presentations on cybersexuality. Symposium 2, chaired by Drs. Elmar Schmeisser and Alex H. Bullinger, introduced an array of presentations on the topic of prosthetics and orthotics training. Symposium 3, chaired by Drs. David Thomas and Susan Schneider, offered presentations on health psychology and pain. During Symposium 4, Drs. Russell Shilling and Jeanne Talbot led a discussion panel on post-traumatic stress disorder. In Symposium 5, Drs. Paul Sharkey and Fabrizia Mantovani thoroughly discussed the maturing technology of new applications. In Symposium 6, Drs. Heidi Sveistrup and Tamar Weiss focused on rehabilitation, and in a continuation, Symposium 7 was chaired by Drs. Tamar Weiss and Heidi Sveistrup and focused again on rehabilitation. Drs. Stéphane Bouchard and Brenda K. Wiederhold chaired Symposium 8, on anxiety: "Anxiety 1—Large Outcome Trials." Symposium 9, chaired by Drs. Patrick Bordnick and Kay Howell, focused on the remarkable advances for the treatment of addictions using VR. Drs. Greg Mogel and Cristina Botella chaired Symposium 10 on the continued topic of anxiety: "Anxiety 2—New Developments and Treatment Mechanisms." Symposium 11, led by Drs. Cheryl Trépanier and Jang-Han Lee, focused on develop-

ments in autism and schizophrenia. Drs. Giuseppe Riva and Christine Youngblut shared their expertise on presence in Symposium 12. Dr. Ralph Chatam led a discussion panel on cybertraining in Symposium 13. Drs. Albert "Skip" Rizzo and Sarah Miyahira chaired Symposium 14 on neuropsychology. Finally, in Symposium 15, Dr. Sharon Tettegah and Kona Taylor concluded the conference with a symposium on education, simulations, and VR.

We would like to take this opportunity to thank this year's Scientific Chairs—Drs. Russell Shilling and Giuseppe Riva—who brought together an excellent technical program, as well as Dr. Stéphane Bouchard, for his continuous diligent effort in organizing an exceptional series of workshops. We appreciate all the program committee members who promoted the conference vigorously throughout the year and assisted in reviewing submitted abstracts. A conference such as this would not have been possible without the generous support of our funding agencies, and we thank them for their belief in our mission, specifically, National Institutes of Health (NIH); Telemedicine and Advanced Technology Research Center (TATRC); Applied Technologies in Medicine and Neuroscience (ATMN); Center of Applied Technologies in Neuroscience (COAT-Basel); Army Research Office (ARO); Defense Advanced Research Projects Agency, (DARPA/DRO); Hanyang University; Istituto Auxologico Italiano; Mary Ann Liebert, Inc. Publishers; National Institute on Drug Abuse (NIDA); Virtual Reality Medical Center (VRMC); Université du Québec en Outaouais (UQO); City of Gatineau; Government of Quebec (Ministries of Education, Health, Intergovernment Affairs, Economical Development and National Assembly); and É-Motion Solutions, Inc. Lastly, thanks go to the attendees who chose to participate.

We hope you will find the abstracts from this year's conference fascinating and beneficial. Their quality reaffirms VR's key role in the future of health care.

The 12th Annual CyberTherapy Conference, "Advancing Healthcare through Technology," will be held June 11–14, 2007, in Washington D.C. We hope you will consider attending. It is our sincere wish that this conference will continue to serve as a platform for representatives from both governmental and private funding agencies, as well as internationally renowned clinicians and researchers.

—Brenda K. Wiederhold, Ph.D., MBA, BCIA

This article has been cited by:

1. Silvia Serino, Stefano Triberti, Daniela Villani, Pietro Cipresso, Andrea Gaggioli, Giuseppe Riva. 2014. Toward a validation of cyber-interventions for stress disorders based on stress inoculation training: a systematic review. *Virtual Reality* **18**:1, 73-87. [[CrossRef](#)]