psyVR
incorporated

Virtual Reality
Mental Health Education

PHILLIP M. SAUTER   RAVINDER REDDY

Introduction

psyVR specializes in interactive VR experience that is tailored to client's needs, focusing on ease of use and portability. We utilize instructional technology to convey complex ideas relevant to mental health.

psyVR uniquely offers custom simulations, end-user customization, language translations, 3-D animations in either PC or Mac platforms. We are developing new VR experiences based on emerging technologies, such as augmented reality.

We can develop: VR systems for conferences, tradeshows

Portable VR units for salespersons

Office-based systems

CAVE environments

Marketing and promotional support

Training and sales materials (web-based, CDs or DVDs)

Web-based training

VR-based Psychosis Education Project (VR-PEP)

Primary objective

To provide clients either (depending on needs/funding):

a) VR only: turnkey VR system that demonstrates bizarre (psychotic) behavior that can be tailored to the client's need; or,

b) VR-based Psychosis Education Project (VR-PEP) that offers a comprehensive in situ training that can be implemented at the local level and repeated over time without psyVR's direct involvement.

Comparison of VR only and VR-PEP

	VR only	VR-PEP
Definition	Hardware/software	includes technical and didactic instruction, discussion, reading materials, and follow-up
VR experience of psychosis	Yes	Yes
Professional staff (RR, PMS) involved	No	Yes
Pre- and post-assessment of experience	Yes	Yes
Discussion of mental status	No	Yes
Discussion of causes of psychosis	No	Yes
Introduction to managing a psychotic individual	No	Yes
Reading materials	Can be included	Yes
New VR vignettes in the future (at discount)	Yes	Yes
Outcome data	Yes	Yes

Timeline

VR system only: 2 months or less from contract
VR-PEP: 2 - 3 months or less from contract

Description of VR-PEP

VR scenario
An example vignette:

- An observer will be watching a male subject at a "typical" street corner with vehicles driving by and some pedestrians
- The scene will transition "into" the subject's "head"
- The subject will be observing the world from his vantage point
- The psychotic phenomena will be injected into the scene
  auditory hallucinations (including command hallucinations)
  visual hallucinations (e.g., vehicle drivers' faces will be seen leering at the subject)
  paranoia (depicted by reactions to the officer's and others' presence)

VR-PEP training components

Program outline	sequence of activities; handing out of reading material
Pre- and post-questionnaires	these are designed to elicit the current state of knowledge and feelings about bizarre behavior and psychosis prior to (pre) and after the training (post)
VR experience	As described above
Discussion of the mental status examination	Immediately after the VR experience there will be a free-flow discussion of the scene and feedback
Differential diagnoses	A formal presentation about the possible causes of bizarre behavior followed by discussion
How to manage a psychotic individual	An overview about common approaches to interviewing and managing psychotic individuals
Discussion of the reading materials	An open-ended discussion about resource available to learn more about mental illness, such as *Schizophrenia: A Practical Primer* or an abbreviated handbook (to be developed)

Purchase/Rental Options

Turnkey projects
All the hardware, software and technical training are included

Purchasing hardware
This option is for those who prefer to acquire dedicated training systems, or those need the latest computer systems for multipurpose utility

Renting hardware
This option is ideal for those who have no desire to own additional computers or have limited budgets. All the hardware required for VR (laptop, headset) can be rented from us, or just the VR headsets. The rental period can extend from days to weeks

Updating hardware
The VR system requires a minimum hardware (see below). If you have a computer system that is relatively up-to-date, it may just require addition of a graphics card, additional memory, etc. We can recommend specific updates or provide them

Web-based VR experience
Currently under development

Required hardware and software

Required Hardware:

Any of the following systems will work:
  Intel® Pentium® M Processor 1.67GHz or greater
  Intel® Core™ Duo Processor 1.67GHz or greater
  Intel® Pentium® 4 HT Processor 2.8GHz or greater
  Intel® Pentium® D Processor 2.8GHz or greater

Memory: 1GB DDR2-533 SDRAM

Graphics card: NVIDIA Graphics Card with 128MB RAM, 256MB preferred

Required Software:

Windows XP Pro or Mac OS® X

What and who we are

psyVR emerged out of several years of collaboration and conversations between Phil Sauter, a multimedia engineer, and Ravi Reddy, an academic psychiatrist, on the potential of utilizing virtual reality technology for education in a wide range of settings, as well clinical problems suitably addressed by the application of VR methods.

Phillip M. Sauter

Phillip M. Sauter is a computer designer and virtual reality architect. In the 1980's he created a virtual reality system named "Isaac" to transform written prose into interactive multimedia, a music tracking processor that analyzed the pitch of real-time audio samples and a digital audio signal processor. In the 1990's he created the Reality Satellite™, a multimedia peripheral with 3D sound and environmental sensing, Ants Alive™, an artificial reality game where a participant steps on virtual ants, and a rotating monitor to navigate a virtual scene based on the concept of a periscope. In the 2000's he developed a virtual reality software simulation of schizophrenia that received national attention by the media including the New York Times and ABC News 20/20, the Jackson Pollock Simulation where Nerf™ balls simulate paint when thrown at a projection screen, and KidsVR, a Web-based virtual reality tool for kids. He currently develops Web-based virtual reality and serious game applications, works with schools to implement game-based learning, and promotes education through technology.

Ravinder Reddy, MD

RR is academic psychiatrist, board-certified in psychiatry and geriatric psychiatry. He trained in psychiatry at University of New Mexico and was a Chief Resident there, followed by a 3-year fellowship at Columbia University. He has been involved in psychiatric education for over 18 years, including director of the psychiatry residency training at the University of Pittsburgh for 7 years, one of the preeminent programs in the USA. He is an expert on schizophrenia with over 40 journal articles and book chapters. He has a new book on the subject (Reddy & Keshavan (2006): *Schizophrenia: A Practical Primer*, Informa Healthcare). He continues to be active in treating patients, teaching and conducting research.

How to contact us

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