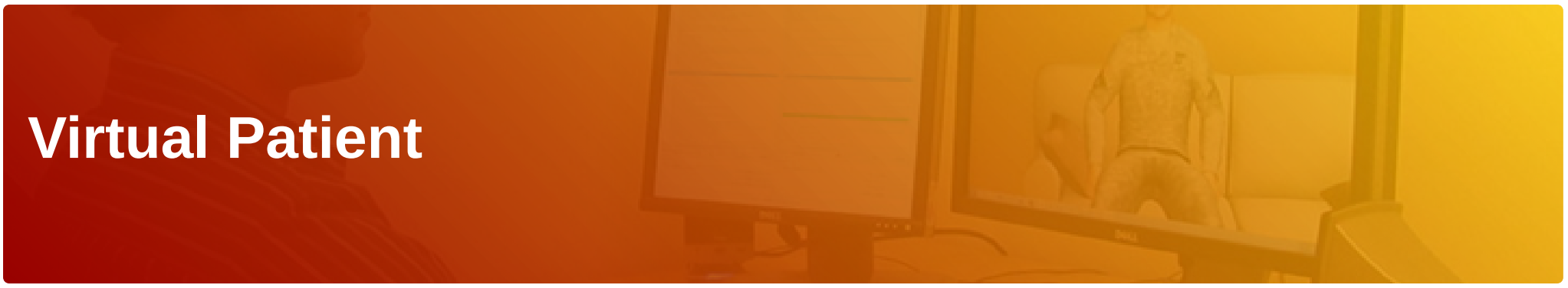
Virtual Patient



The Virtual Patient project uses virtual human technology to create realistic lifelike character avatars and uses speech recognition, natural language, non-verbal behavior and realistic scenarios for both military and non-military issues to train clinicians in interpersonal areas such as rapport, interviewing and diagnosis. ICT-developed virtual patients are being incorporated into the curriculum at the USC School of Social Work, in collaboration with their Center for Innovation and Research for Veterans and Military Families, as a way to train future clinicians in therapeutic interview skills.

Recognizing a use for virtual standardized patients, the project began as an offshoot from the virtual human project in 2005. The virtual patient team submitted and won a Provost Teaching with Technology Grant for the University of Southern California in 2006 to fund a pilot project. The success of this effort led to ICT funding a yearlong research effort in 2007-2008 to transition the technology from the virtual humans to the virtual patients.

ICT is developing virtual patients for military specific scenarios for the US Army STTC. In 2010 and additional project started with the USC School of Social Work and the Army TATRC to apply virtual patients to train social workers in military specific issues and how to converse with military personnel about the issues they deal with every day form family life to return form service to PTSD. The virtual patient system will have virtual client classrooms setup at USC’s School of Social Work starting in 2011 for every student to use. The future virtual patient system will be delivered over the web and mobile devices such as tablets for easy and continuous training.

The use of virtual patient technology is not meant to replace human standardized patients but augment live actor programs with virtual characters that are available 24/7 and can portray a multitude of conditions that might be difficult for actors to represent or repeat with success. Additionally being able to have a variety of characters available from elderly and young persons in different genders and cultures will be a benefit.

Goals

- Design intelligent Virtual Patients that have realistic and consistent human-to-human interaction and communication skills to open up possibilities for clinical psychosocial applications that address interviewing skills, diagnostic assessment and therapy training.
- Create a comprehensive Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnostic trainer that has a diverse library of VPs modeled after each diagnostic category. The VPs would be created to represent a wide range of age, gender and ethnic backgrounds and could be interchangeably loaded with the language and emotional model of any of the DSM disorders.

External Collaborators

- Caroly S. Pataki, M.D.
- Michele T. Pato, M.D.
- Cheryl St-George, M.S.
- Jeffery Sugar, M.D.
- Celestine A. Ntuen, PhD