

Orli Belman, public relations and programs manager for the Institute for Creative Technologies, holds a mirror ball in the institute's Light Stage dome. The dome is used for facial scans to help create realistic virtual humans for Hollywood, as well as ICT's Army projects like ELITE and SimCoach.

Avatar-based Simulations to Boost Counseling skills

By Gary Sheftick

Army News Service

he idea began with six-foot avatars interacting with students in a classroom, and matured into computer-based simulations to help Soldiers with counseling.

Emergent Leader Immersive Training Environment software, known as ELITE Lite, can now be downloaded by Soldiers (with a CAC card) from the Army MilGaming portal at https://milgaming.army.mil/.

Soldiers can select whether they want to be a virtual officer or NCO. Then they interact with uniformed avatars that have problems ranging from disagreements with their platoon sergeant to driving under the influence and sexual harassment. Responses provided to the avatars determine the direction of the counseling sessions.

Five ELITE Lite training modules are now being used as part of cadet leadership classes at the U.S. Military Academy at West Point, New York. And the virtual scenarios may soon be part of the curriculum for junior NCOs in the Warrior Leader Course.

This new type of interactive training is the wave of the future, said Marco Conners, chief of the Army Games for Training program at the National Simulation Center, Fort Leavenworth, Kansas.

Today's training tools need to have an element of "captivation and entertainment," he said.

"Soldiers today have grown up in a digital age," Conners said. "Students tend to learn faster and more if you place it into an interactive game environment instead of standing up there with a butcher board."



Leaders who go through the ELITE virtual training sit at a computer facing the virtual Staff Sgt. Jacob Garza. They will use the computer screen and mouse to choose responses to what Garza says. (Photos by Jonathan (Jay) Koester, NCO Journal)

Simulations fill a vital need, he added.

"It's critical that our young leaders learn how to counsel Soldiers," Conners said. "Counseling skills help these leaders prepare Soldiers for any mission. Just as important, ELITE helps Army leaders develop to their full potential."

Requests to develop counseling simulations came to Conners, in 2011, first from the Maneuver Training Center of Excellence at Fort Benning, Georgia. Then about a week later, the same request came from the Fires Center of Excellence at Fort Sill, Oklahoma. Only a few weeks after that, a request came from West Point.

For a solution, Conners turned to the Army Research Laboratory's Human Research and Engineering Directorate, Simulation and Training Technology Center, or STTC, in Orlando, Florida, and the Institute for Creative Technologies, or ICT, at the University of Southern California.

The ICT had been working on a similar effort for a number of years. The ICT was a natural fit as it is a combination of computer scientists and researchers, and "there's some Hollywood state-of-the-art stuff that they do," he said.

ICT's first idea was to have life-like avatars interact with students in a classroom setting. They put together a demonstration at Fort Benning's Clark Simulation Center. The technology "floored" him, Conners said.

Soon he realized, however, that avatar classrooms would need to be built at least on 14 posts, camps and stations where the Warrior Leader Course was taught. So his team determined that computer-based avatars would make more sense.

ICT first developed three virtual scenarios: In one, a Soldier could not get along with his platoon sergeant. In another, a Soldier was bouncing checks. In the third, a Soldier had a DUI.

A team from ICT went to Fort Benning to develop the DUI scenario by interviewing Soldiers and leaders. They listened to the vernacular of how Soldiers talk.

"They captured that very, very well," Conners said. Then in January of this year, officials decided that

perhaps SHARP-related scenarios ought to be developed. Conners contacted G-1 staffers at the Pentagon for ideas.

Two scenarios were developed with help from the Sexual Harassment/Assault Response and Prevention, known as SHARP, office at the Pentagon.

In the first scenario, a Soldier gets into a physical altercation with his squad leader. When the lieutenant interviews the Soldier, he finds the squad leader was making inappropriate comments about women in the squad. The Soldier couldn't take any more, Conners said, so he took a swing at his NCO.

"That's a pretty difficult dynamic for a young lieutenant to look at," Conners said.

In the second scenario, a young female Soldier wants a transfer because some Soldiers in the unit are making inappropriate comments about her. The lieutenant needs to figure out that a transfer is not what is really needed — what's needed is to get a handle on the situation and stop the comments.

"Through the scenarios, ELITE teaches new leaders interpersonal communication, critical thinking and problem solving skills integral to nurturing a climate of dignity, respect and mutual trust that result in lasting cultural change where sexual harassment and sexual assault cease to exist," said Dr. Christine T. Altendorf, director of the Army SHARP Office.

Conners said ELITE software can become a platform for other training needs.

"The beauty of ELITE Lite is not just that it will teach counseling, but you can use it for a multitude of different things," Conners said. ELITE is a platform that can be tailored to provide training for different professionals, he said. "You can use it for doctors to inform patients that they have a terminal disease."

ELITE Executive will eventually be developed to train specialty branches such as chaplains, doctors and lawyers, Conners said. More immediate, however, ELITE Professional will be aimed at the company level.

"We want the counseling to be at the next-higher level," Conners said. ELITE Lite is for platoon and below. ELITE Professional will be for company-level leadership: commanders, first sergeants and platoon sergeants.

ELITE provides consistency and standardizes the counseling process, Conners said.

"When you do peer to peer (training), it's really catch as catch can ... some people take it seriously and some don't," he said.

ELITE, he explained, "allows Soldiers to see how counseling should be properly done."

The ELITE content incorporates Army-approved leadership doctrine, according to the MilGaming portal. It goes on to say the software incorporates evidence-based instructional design methodologies and ICT research technologies such as virtual humans and intelligent tutoring.

The Institute for Creative Technologies, however, did not design the software alone.

Help was provided by the Army Research Lab's Human Research and Engineering Directorate, Simulation and Training Technology Center.

Another organization in Orlando, the Program Executive Office for Simulation, Training and Instrumentation, helped develop long-term logistics support for sustaining the software, Conners said.

Then the National Simulation Center team at Fort Leavenworth oversaw verification, validation and accreditation.

Verification ensures the software is stable, Conners said. Validation makes sure it can achieve the training objectives and tasks that it is trying to achieve. Accreditation is when a general officer reviews the training tool and certifies it. That was done in August by Brig. Gen. Joseph Martin, deputy commanding general of the Combined Arms Center–Training, Fort Leavenworth.

Validation of ELITE Lite involved students from both the Warrior Leader Course and Basic Officer Leader Course at Fort Benning. Students found the virtual training helped boost their confidence and self-esteem, Conners said. ■

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