

Think Like a Commander - Excellence in Leadership [TLAC-XL]

2001 - 2008

Project Leader: Dr. Randall W. Hill, Jr; Julia Kim

Background

In the US Army, where leadership is defined as "influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improve the organization," the need to accelerate leadership training remains critical.

Traditional computer-based leadership training in the Army largely focused on tactical and technical aspects, relying on constructive simulations that reinforced mission planning and battlefield strategy. However, these tools fall short in addressing the human dimensions of leadership, such as interpersonal communication, motivation, and command climate.

Recognizing this gap, the **Think Like a Commander – Excellence in Leadership (TLAC-XL)** system was developed as an innovative training solution, integrating artificial intelligence, interactive storytelling, and virtual mentorship to create an immersive learning experience. TLAC-XL leveraged professional filmmaking techniques and Al-driven dialogue interactions to simulate real-world leadership scenarios, allowing users to engage in guided conversations with synthetic mentors and characters from the training vignettes.

Objectives

The primary objective of TLAC-XL was to enhance leadership training by bridging the gap between theoretical knowledge and practical application with the following elements:

- Narrative-Based Learning: Stories have long been used as a means of transmitting knowledge and shaping societal norms. The TLAC-XL system employed video-based scripted scenarios to depict realistic leadership challenges, enabling participants to engage with complex situations in a controlled environment.
- Interactive Learning through AI: TLAC-XL fostered active engagement by allowing users to interact with a synthetic mentor and fictional characters. Through AI-driven dialogue systems, trainees asked questions, received responses, and reflected on their decisions.
- Develop Tacit Knowledge: Leadership is not just about following rules; it involves an intuitive understanding of people and circumstances. TLAC-XL was designed to cultivate tacit knowledge—the kind of practical wisdom that is difficult to articulate but essential for effective leadership—by exposing trainees to real-world dilemmas and encouraging them to think critically.

- Address Leadership in Contemporary Military Operations: Beyond traditional battlefield tactics, today's military leaders must navigate peacekeeping, stability operations, humanitarian assistance, and interagency collaboration. TLAC-XL incorporated scenarios that reflect these challenges, equipping officers with the skills to handle diverse and unpredictable situations.
- Improve Decision-Making Through Guided Discourse: The system prompted trainees with thought-provoking questions and facilitated discussions that reinforced leadership principles, explored multiple perspectives, refined their decision-making abilities, and developed greater self-awareness.

Results

Initial evaluations of TLAC-XL yielded promising insights into its effectiveness as a leadership training tool. Two major evaluation studies were conducted by the Army Research Institute at Ft. Lewis, WA, and Ft. Drum, NY, to assess how trainees interacted with the system and the impact it had on their learning outcomes.

To evaluate TLAC-XL's effectiveness, a comparison was made between the interactive Al-driven experience and a traditional slideshow version of the same scenario. While both methods successfully conveyed factual details about the mission, trainees using TLAC-XL demonstrated a more nuanced understanding of interpersonal dynamics and leadership challenges. This suggests that the interactive nature of the system enhances comprehension beyond mere information retention.

Next Steps

Overall, TLAC-XL represented a significant step forward in military leadership education. By combining the power of storytelling, Al, and interactive learning, it offered a compelling alternative to traditional training approaches. This system informed much of our later research at ICT, integral in preparing the next generation of military leaders to navigate the complexities of modern warfare and beyond.

Project Leader: Dr. Randall W. Hill, Jr; Julia Kim

Established in 1999, the USC Institute for Creative Technologies (ICT) is a Department of Defense (DoD) University Affiliated Research Center (UARC), sponsored by the US Army. Harnessing technology, creativity, academic innovation and military-domain expertise, ICT conducts award-winning R&D in Artificial Intelligence (AI), Computer Graphics, Geospatial Sciences, Human Performance, Learning Sciences, Modeling, Simulation & Gaming, Mixed Reality (MxR), Medical VR, Narrative, and Virtual Humans.