Advanced Dynamic Enhanced Presentation Tools (ADEPT)

2025 - Current
Project Leader: David Nelson

Across government and defense organizations, teams must communicate complex technical research concepts to audiences with different levels of expertise. Traditional presentations often have text-heavy slides that obscure key messages and reduce impact. ADEPT addresses this challenge by introducing an AI-assisted platform that helps transform complex information into clear, visually compelling narratives. By combining storytelling frameworks, intelligent document analysis, and a library of presentation assets, ADEPT helps presenters rapidly convert reports and technical materials into concise, audience-focused briefings.

Background

The Defense Threat Reduction Agency (DTRA) engaged the USC Institute for Creative Technologies (ICT) MxR Lab to explore how storytelling techniques, artificial intelligence, and improved presentation workflows could strengthen technical communication. The ADEPT project investigates new approaches that make complex information clearer, more memorable, and more actionable for decision-makers and stakeholders.

Objectives

ADEPT aims to develop an AI-assisted presentation platform integrating three core capabilities: AI-assisted narrative development, Intelligent extraction of key information from source materials, A curated digital media repository ("digital backlot"). Together, these capabilities streamline presentation creation while improving the clarity and impact of technical briefings.

Results

The ADEPT project has completed Phase I and Phase II of the research effort evaluating presentation technologies, engaging DTRA SMEs, exploring concepts for AI-assisted storytelling tools and a digital media repository and defining the platform's requirements, architecture, UI/UX and technical roadmap.

Next Steps

The next phase will focus on developing and deploying an Alpha version of the ADEPT application within DTRA Research & Development. This early deployment will allow users to begin creating presentations with the ADEPT workflow and provide feedback to guide further refinement of the system.

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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.