

AI Research Center of Excellence for Education (AIRCOEE)

2023 - Current

Project Leader: Ben Nye, Ning Wang, Bill Swartout



Background

AIRCOEE (AI Research Center of Excellence for Education) is a two-year \$4.5 million dollar research contract through the U.S. Army Research Office to address two fundamental questions: “How do we use AI to improve education?” and “How do we upskill our population in AI and prepare them for the jobs of the 21st century?”

Objectives

AIRCOEE includes a total of five research tracks to develop applications which will apply AI to accelerate Army University learning, and also advance AI upskilling across the DoD and civilian workforce, including:

1. Army Writing Enhancement Toolset (AWE): An intelligent tutoring system and writing-support tool which assists instructors in teaching the Army Writing Style for distinct categories of Army writing (e.g., task orders).
2. AI-Enhanced Dashboard for Instructors & Students (AID): A suite of intelligent dashboards designed for instructors which present metrics on engagement, risk of failing assessments, and atypical topics/resources (e.g., particularly easy or hard). The dashboard will provide instructors with early warnings about students who may be struggling so that they can intervene before serious problems occur.
3. Meta-Tutoring for Improving Self Regulated Learning (SRL) Skills with AI: a personalized recommender system for learning which trains “learning to learn” skills as learners practice a content area they are motivated to learn.
4. AI Assisted Revisions for Curricula (ARC): A developer tool for semi-automated revisions to training materials, by identifying areas to update based on an analysis of changes in doctrine, policy, or manuals.
5. AI-Upskilling with AI Tools (AI-UP): An integrated set of intelligent tutoring systems for rapidly learning a personalized set of AI skills aligned to a specific job role and goal, giving the workforce the knowledge needed to enhance productivity.

Next Steps

The latest research tracks under the AIRCOEE project will be presented at the Army University Learning Symposium in June 2024. Published academic research papers are available from <https://ict.usc.edu/research/publications> (Search engine keyword: USC ICT Publications)

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