

Leveraging Artificial Intelligence for Cadet Education

How can West Point incorporate AI Technologies into the classroom while upholding core military values?

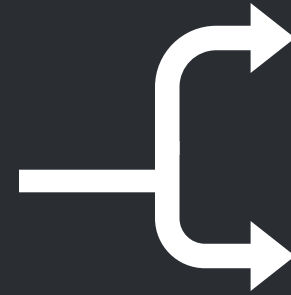


Methodology

Developed custom chatbots for learning Portuguese



Fielded the chatbot to 134 students



Evaluated performance using faculty assessments of AI responses

Surveyed study participants on user experience



Results

- Chatbots correctly facilitated conversation & provided relevant feedback 95% of time
- 95% of participants desired a broader implementation of AI technology

Predicting Pilot Workload Using Physiological Measures

To what extent can classification models trained on pilots' physiological data accurately predict high workloads?



Methodology

- 7 Pilots performed various tasks in an **F-35 cockpit simulator**
- Biometric data collected from pilots as they conducted low- and high- workload tasks
- Cadets **trained classifiers** to detect when pilots were experiencing high workloads

Results

- Performance was higher when classifiers were trained on individual pilots instead of on a group of pilots
- Percent change in pupil size were particularly noticeable in high vs. low-workload scenarios

Read more about this project at the following link: https://www.ieworldconference.org/content/WP2024/Papers/GDRKMCC24_3.pdf