



USAF- AIR EDUCATION & TRAINING COMMAND

INTEGRATING ARTIFICIAL INTELLIGENCE TO ADVANCE FORCE DEVELOPMENT

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AGENDA

RESEARCH & RESOURCES

TRAINING & EDUCATION APPLICATIONS

OPERATIONAL APPLICATIONS

QUICK PROMPT ENGINEERING TUTORIAL

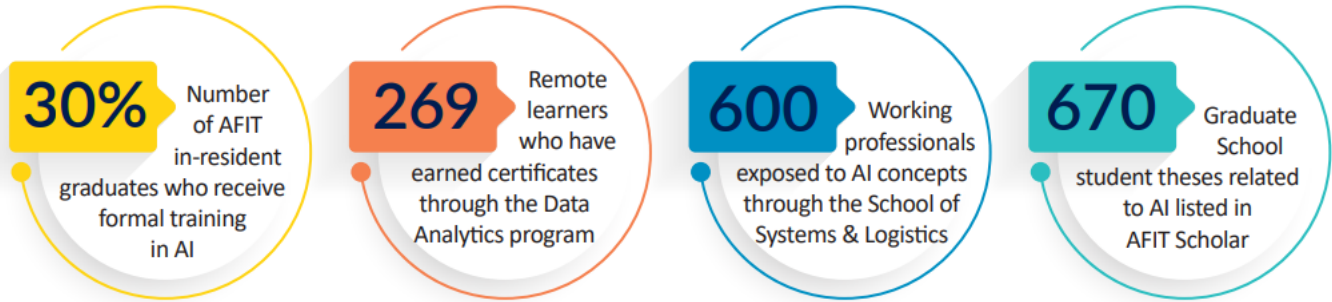


RESEARCH & RESOURCES

ADVANCING LEARNING



USAF- INSTITUTE OF TECHNOLOGY ARTIFICIAL INTELLIGENCE EFFORTS

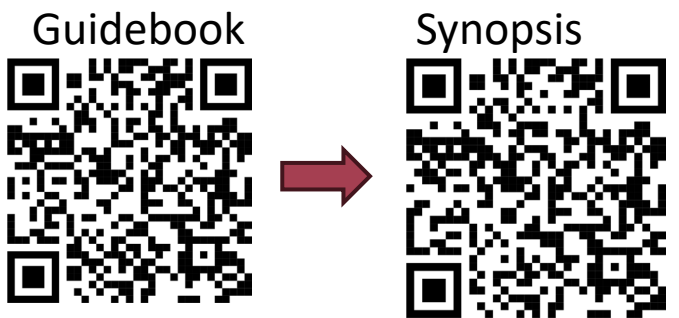


AFIT Artificial Intelligence Technology Research & Education Consortium (AI TREC)



AFIT Engineer
December 2024
issue includes
courses,
certificate,
faculty
development
and much more

AFIT Generative AI Teaching Guidebook Synopsis



AFRL & THE HUMAN EFFECTIVENESS DIRECTORATE & 711TH HUMAN LEARNING & COGNITION TEAM



■ **NIPRGPT & AcqBot**

■ **Prompt Engineering & Promptapoolza** (role-based prompts)



AFRL AI Page Link

■ **Human Effectiveness Directorate** is working on understanding: Co-learning research, Adaptive Human Machine Teaming, Effective models of learning technology, cognitive warfare, and decision making that integrate human performance



EDUCATION & TRAINING APPLICATIONS

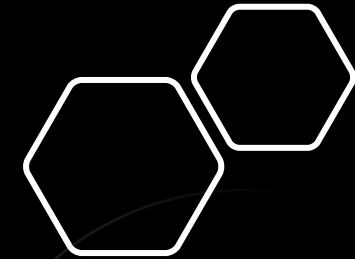
- A2- Intelligence & Language
- 2AF- Tech Training- AFCDA
- 19AF- Flying Training
- Air University
- LEDx Praxeum Event





AETC/A2 Initiative

AI Training Wizard



data.world



AFWERX funded SBIR Phase 2
Now thru May'26

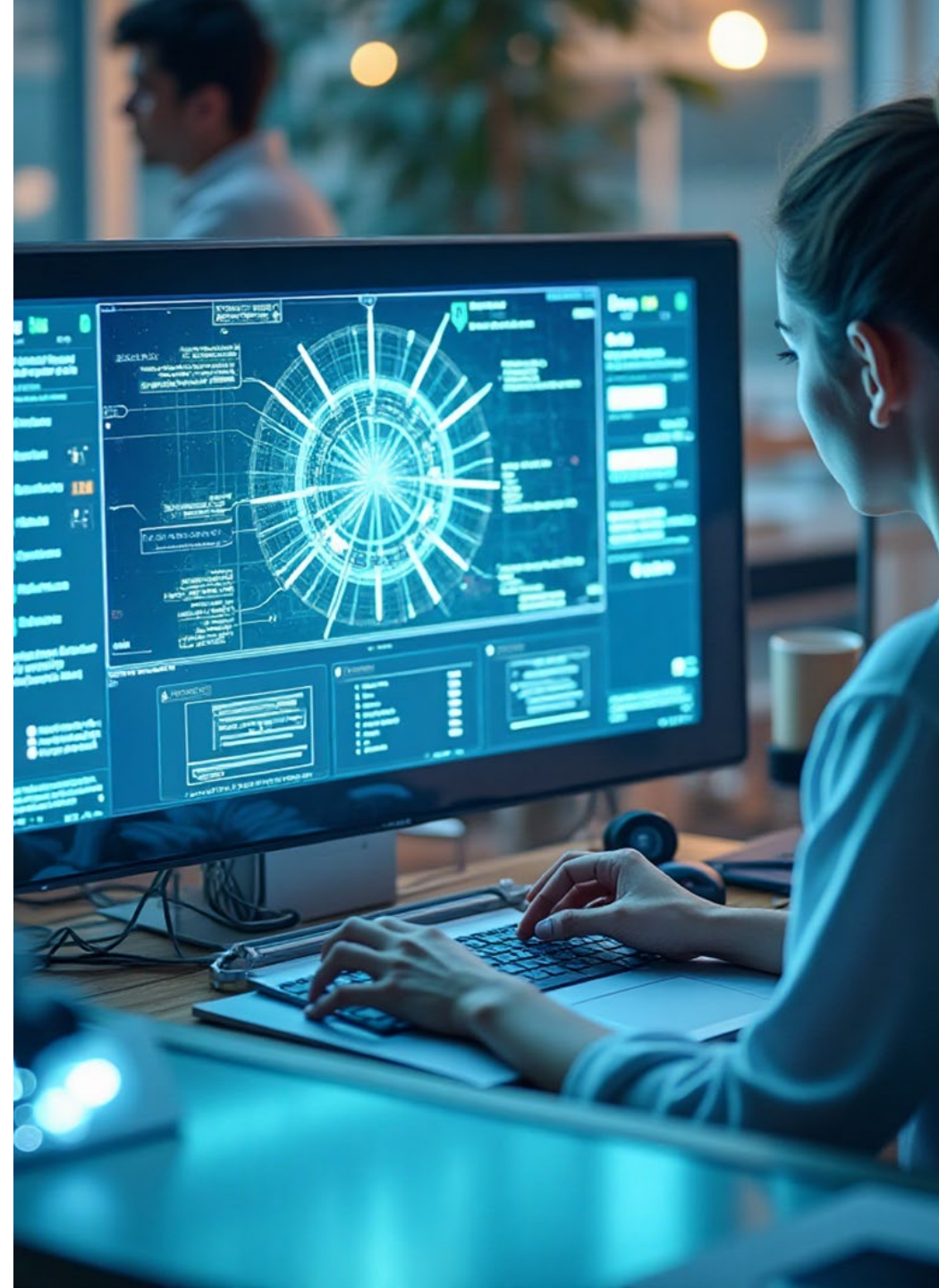
USAF CAREER DEVELOPMENT ACADEMY AI CURRICULA DEVELOPMENT TOOL

Key Features:

- AI-driven
- Efficient & Accurate
- Resource-Aware
- Scalable & Accessible

Benefits:

- Faster Development Cycles
- Data-Driven Insights
- Enhanced Accessibility & Scalability
- Rapid Lesson and Scenario Generation
- Grounded Reference Content
- Efficient Content Customization



19AF- AI USE IN FLYING TRAINING

Four areas that we plan on using artificial intelligence

1) Adaptive learning ecosystem (ALE): Using AI we will relate areas where the student is struggling to specific remediation content. Uniquely prompting the student with study items and daily questions in the form of flash cards to keep knowledge relevant and strengthen weak areas

2) Automated Grade sheet Constructor (AGC): Natural Language Processing to enable the instructor to set their Electronic Flight Bags (EFB) to active listening during a debrief. The AGC will use AI to place the conversation elements into their appropriate locations within the Grade sheet (GS).

3) Automated scheduling: While this technology already exists within the Pilot Training Transformation (PTT) Portal we have not deployed it to the field. Automated scheduling needs full access to all assets and resources. Challenges include system integration

4) Suggestive grading: Using flight data in conjunction with our Competency and Skills System (CaSS) the AI is able to compare course training standards with actual flight data.

***This of course would only apply to flight events that have 100% of the data captured that applies to the graded area and will in no way replace the instructor pilot (IP), but instead will aid the IP is rapidly filling out the Gradesheet (GS).*



AIR UNIVERSITY ARTIFICIAL INTELLIGENCE EFFORTS

Examples of AI-centric efforts at AU:

- AI **community of practice** & hosted unconferences to expand connection on the topic, has an active immersive learning & simulation research task force that is supporting a two-term immersive VR course on AI/ML
- AI integrated into **building & reviewing courseware & workshops** focused on PME, leadership & writing- using as a critical-thinking partner for assignments.
- **Integrating into Technology-** AI-powered notebooks (using Google's NotebookLM) and leveraging AI for avatar training scenario building
- **Building algorithms** -AUiX has created a custom GPT for crunching through course feedback to generate custom reports (DRADIS = Data Review and Decision-Making Instructional Support) and another for strategic modeling (CHUCK).
- **Sharing efforts** through the distribution of newsletters and updates from faculty on advances in AI to address leadership, ethics and security.



OPPORTUNITY TO SHARE EFFORTS

AU, GCPME, TLC, AFIT & AUX...

8:00 PM - 8:15 AM (+1 day)

Welcome

Dr. Bill DeMarco and Danny Weston

8:15 AM - 9:00 AM

Opening Keynote: Vision for AI in Education at Air University

Dr. Yolanda Williams, Chief Academic Officer

Air University (AU)

9:00 AM - 9:45 AM

Evolving Perspectives on AI in Education — From Skepticism to Empowerment

Dr. Asim Ali, Executive Director

Biggio Center, Auburn University

9:45 AM - 10:00 AM

BREAK

10:00 AM - 10:45 AM

DoD Joint Staff — Sharpening the Warfighter's Edge

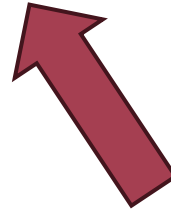
DoD Joint Staff — "Sharpening the Warfighter's Edge: AI-Driven Learning for Tactical Precision and Operational Dominance"

10:45 AM - 11:45 AM

Empowering the Future Force: Harnessing Generative AI Across the AETC

Dr. Wendy Wash, Chief Learning Officer

Air Education and Training Command (AETC)



AUiX, AFIT, and AU are sponsoring an AI and
Military Education essay contest to align
with the Praxeum event



23-24 APR 2025 | The Eagle Institute

Times, topics, and speakers are tentative.


REGISTER NOW



AETC OPERATIONAL APPLICATIONS CURRENT AND IMAGINED*

- A1- TALENT MANAGEMENT/ HUMAN RESOURCES
- A/3G- LEARNING MANAGEMENT TECH & DATA MANAGEMENT
- A/4- INFRASTRUCTURE
- A/5/8- STRATEGY & PLANS
- A9- ANALYTICS
- CLO

** This is a small snapshot of efforts underway seen from the AETC headquarters perspective. It's expect that the Wings, Squadrons, Instructional Technology Units, Faculty development, Spark cells & Individual Airmen would add much more .*





AI- HUMAN RESOURCES & TALENT DEVELOPMENT

Currently uses AI for memos, editing, & inspiration

Imagined/Possible Use cases:

- **For managing, analysis and reporting of “civilian personnel readiness”** for the command. This use case Could unify data from multiple systems & sources to perform complex analysis, help identify problems, trends and meaningful insights for data driven decision making for senior leaders.
- **To manage talent accessions and recruitment processes.** This case would be to automate manual processes involving multiple data/sources to timely execute processing and requirements,
- **For employee records reviews.** This case would be to perform data validation and potentially cleaning to ensure accurate employee records and updates. Would include reporting, tracking and trend errors.
- **For Managing & Leveraging Airmen with PhDs** to support specific Mission Requirements.




A3G- LEARNING TECHNOLOGY INTEGRATION

We are introducing Dory, our new DAF Learning Services AI Chatbot. Her aim is to be your wingman, helping you navigate our learning services capabilities in order to ensure we provide Airmen and Guardians with the support needed to accomplish training.

Dory ChatBot on myLearning- Empowers Users with Immediate Solutions 24/7 ensuring users can get help anytime, minimizing disruptions and increasing usability for users in different time zones.

Advantages of Using myLearning Dory Bot:

- Reduces the workload on help desk teams, freeing them to focus on more complex inquiries.
 - Accelerates problem resolution, leading to improved user satisfaction and productivity.
 - Provides consistent and accurate responses, ensuring users get reliable information every time.
 - Continuously learns and adapts based on user interactions, improving its ability to assist over time.
- 

A3G- LEARNING TECHNOLOGY INTEGRATION

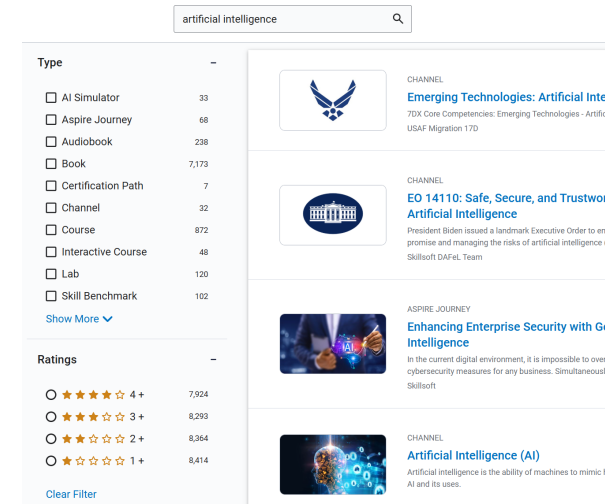
DAF eLearning (Percipio) Leverages AI to personalize the learning experience, providing tailored recommendations, adaptive content delivery, and in-depth analytics, ultimately driving user engagement and skill development.

Used in the following:

- CAISY - AI Assistant
- Coaching Guide
- Assessment Q&A
- Roles, Skills Framework
- Content Tagging/Curation
- Course Question Answering Translation
- Localized Search
- Closed Captions

Here are some more specialized bullets:

- Personalized Learning Paths.
- Smart Search and Content Recommendations
- Adaptive Learning
- Analytics and Insights
- Chatbots and Virtual Assistants
- Content creation and curation
- Engagement and Retention Strategies:
- Skill Development Tracking




artificial intelligence

Type	Count
<input type="checkbox"/> AI Simulator	33
<input type="checkbox"/> Aspire Journey	68
<input type="checkbox"/> Audiobook	238
<input type="checkbox"/> Book	7,173
<input type="checkbox"/> Certification Path	7
<input type="checkbox"/> Channel	32
<input type="checkbox"/> Course	872
<input type="checkbox"/> Interactive Course	48
<input type="checkbox"/> Lab	120
<input type="checkbox"/> Skill Benchmark	102


[Show More](#)

Ratings	Count
<input type="radio"/> ★★★★★ 4+	7,924
<input type="radio"/> ★★★★☆ 3+	8,293
<input type="radio"/> ★★★☆☆ 2+	8,364
<input type="radio"/> ★★☆☆☆ 1+	8,414


[Clear Filter](#)




CHANNEL
Emerging Technologies: Artificial Intelligence
7DX Core Competencies: Emerging Technologies - Artificial Intelligence
USAF Migration 170



CHANNEL
EO 14110: Safe, Secure, and Trustworthy Artificial Intelligence
President Biden issued a landmark Executive Order to ensure the safe, secure, and trustworthy use of artificial intelligence, while promoting innovation and managing the risks of artificial intelligence.
Skillsoft DAFet, Team



ASPIRE JOURNEY
Enhancing Enterprise Security with Generative Artificial Intelligence
In the current digital environment, it is impossible to overlook cybersecurity measures for any business. Simultaneously, Skillsoft



CHANNEL
Artificial Intelligence (AI)
Artificial intelligence is the ability of machines to mimic human intelligence and its uses.

AI Assistant

Today

AI ASSISTANT

Welcome WENDY! I can help you find learning content to meet your goals.

Provide as much detail as possible, so that I can give you the best recommendations.

Here are some trending topics to get you started:

[How do I create Pivot Tables?](#)

[How do I become a better presenter?](#)

[How do I boost team performance?](#)

[What is Agile?](#)

[How do I manage project stakeholders?](#)

A photograph of four A4 team members in a large hangar. Three men and one woman are standing in a line, facing each other and talking. They are wearing flight suits. In the background, a large aircraft is visible through the hangar's open bay doors. The lighting is bright, coming from the hangar's interior lights and the natural light from the bay doors.

A4- LOGISTICS, ENGINEERING & FORCE PROTECTION

- Current AI Use in A4:
 - **NIPRGPT** – The A4 team uses this for document editing, formatting, and reviewing key points/phrases.
 - **Power BI** – Used by A4's CAM/Weapon System Sustainment and FM teams for data visualization, analytics, and interactive dashboards.
- There's so much AI potential in A4
 - **Aircraft Maintenance**: assist with predictive maintenance, using sensor data to identify potential issues before they become major problems.
 - **Supply Chain & Logistics**: improve inventory management, predict parts shortages, and optimize logistics routing.
 - **Security & Defense** (Counter-sUAS): AI-powered surveillance could enhance threat detection and response, including autonomous counter-drone measures.
 - **Civil Engineering & Infrastructure**: AI could help monitor base infrastructure

A5/8- STRATEGY & PLANS

The goal is to teach all A5/8 foundational understanding of AI and to date they have 109 of 136 trained.

They are implementing a baseline use of a generative AI tool (AskSage) to enhance day-to-day operations & support advanced use cases

Identified Evaluation and Metrics

Adoption Rates: Monitor the number of active users within the A5 and A8 directories.

Efficiency Gains: Measure time saved on tasks such as email drafting and report generation.

User Satisfaction: Collect qualitative feedback from users regarding ease of use and tool effectiveness.

Security Compliance: Regular audits to ensure continued adherence to IL4 and IL6 standards.

Expected Gains

- **Optimizing resource allocations reviews and analysis**
- **Accelerate strategic planning**
- **Generating more precise requirement forecasting**

USAF AI Strategy website-





CLO ENGAGEMENT WITH AI



Staying Curious:

- Attended the John Hopkins Course provided by CDAO
- Made connections with the MIT AI Accelerator and highlighting the Phantoms
- Using NIPRGPT, ASK SAGE and other LLMs to support



Sharing what I Learn:

- Included AI in my briefings and dialogues
- Encouraging others to engage & sharing resources
- Presenting here & in other areas-LEDx & NATO
- Advocating for trials and thoughtful application





U.S. AIR FORCE

AETC- A9 Command Analytic Office (CAO)



AETC CAO - Command Analytic Office

Public group ☆ Not following 34 members

CAO Home About us Current Efforts AETC Data Literacy Training **AETC AI Resources** Analytic Working Group Platforms & Tools AETC Process Improvement Events and Conferences Strategy, Policy & Guidelines AETC CDO AETC RAND Studies Event Calendar Pages Recycle bin Edit

AETC Artificial Intelligence Resources

What is Artificial Intelligence?

In the context of computer science, the term is continuously evolving. A recent definition in 15 U.S.C. 9401(3) is "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. Artificial intelligence systems use machine- and human-based inputs to perceive real and virtual environments; abstract such perceptions into models through analysis in an automated manner; and use model inference to formulate options for information or action."

Education and Training

- Defense Acquisition University
- IBM Skill Build
- AFRL**
 - [AFRL - AI Learning Map](#)

Resources in this map can help individuals achieve a baseline level of skills in Artificial Intelligence. This map is available to all individuals and is intended to be used by Scientists & Engineers (S&E) employees. Completion is voluntary. Time to complete varies.

Selected AFRL Digital Dialogues:

 - [AcqBot - Go Faster, Do More, Get it Right the First Time](#) with Cherish Lesko - January 30, 2025
 - [How to Run Successful AI Projects and Avoid Failures](#) with Cognilytica - May 29, 2024
 - [AI 101 with Ms. Alexis Bonnell](#) - February 29, 2024
 - [AI 102 with Ms. Alexis Bonnell and Dr. Steve 'Cap' Rogers](#) - March 7, 2024
 - [39 Ethics in AI with Dr. Diana Thomas](#) - January 30, 2024
- DAF e-Learning

Important Update
[Removing Barriers to American](#)
POTUS has ordered a comprehensive review regarding AI: all policies, directives, Executive Order 14110 of October 2023 (Intelligence) and OMB Memoranda. Please check back regularly on the page for adding new guidance as it comes.

❖ CAO Site Maintains Updated:

- Strategy, Policy, Guidelines
- Curated Education & Training Resources
- Analytic and Gen AI Tool Information
- AI Job Aids

❖ Provides Links to Material Hosted by:

- White House
- DoD Chief Digital and AI Office
- DAF Chief Data and AI Office
- Universities (DAU, AFIT, MIT, Stanford)
- Air Force Research Lab, IBM
- DAF Learning Platforms

<https://go.mil/aetc-cao>



U.S. AIR FORCE



AETC Digital Upskilling

AETC Data Literacy Foundations Course: Required Training

AETC DATA LITERACY COURSE

* Required

Required for all AETC staff

AETC Data Literacy Foundations Course Objectives

- Fulfills the basic requirements of AETC Task Order 24-007
- Discuss the use of data and analysis in our mission areas
- Review approved tools that are available to AETC members

Audience: All AETC Staff

Modality: DAF E-learning

Required time: Approximately an hour

AETC DATA LITERACY FOUNDATIONS COURSE

- Discusses data literacy as a concept and its importance
- Discusses the use of data and analysis in our mission areas
- Reviews approved tools & platforms available to ADC members

AETC Data Literacy Learning Pathways

AFIT
An Overview Course

AETC DATA LITERACY
Beginner Level

AETC DATA LITERACY
Intermediate Level

Air Force Research Lab (AFRL) Learning Maps

DATA & ANALYTICS
Awareness Level

DATA VISUALIZATION
Awareness Level

[See other AFRL Learning Maps](#)

Curated Course Content

- AFIT
- AFRL
- DAF 365 HUB
- DAF e-Learning
- DataCamp
- Defense Acquisition University
- Digital University
- IBM
- MIT
- Palantir
- Stanford

<https://go.mil/aetc-cao>

THE FIRST COMMAND!

QUICK PROMPT ENGINEERING TUTORIAL

PROMPT ENGINEERING

Define Clear Objectives: Precise inputs for desired outcomes

Use Detailed Prompts: Specific prompts for accurate and relevant outputs

Iterative Process: Refine prompts based on previous outputs

Cross-Verify Information: Check AI-generated information with reliable sources

Understand the Limits: Recognize AI limitations, do not expect beyond capabilities

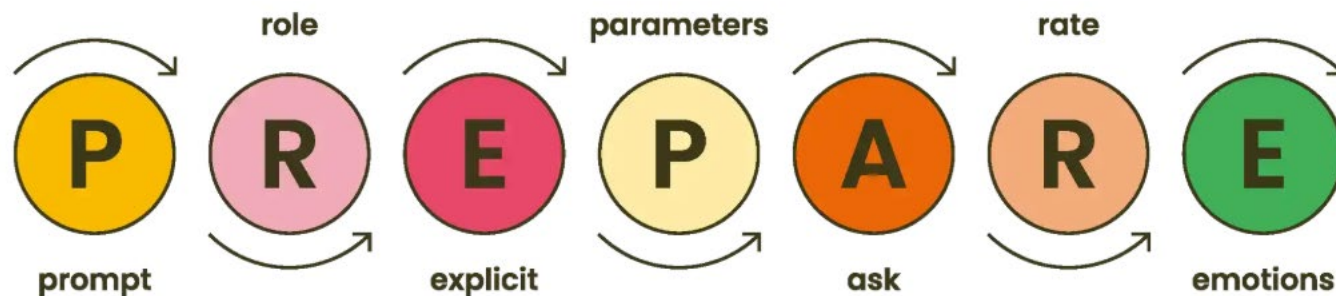
Specificity: Specific information requested yields more accurate AI responses

Use Structured Data: Improve processing accuracy with structured data

Bias Awareness: Mitigate biases in AI responses

Consistent Review: Regularly review AI-generated content for relevance and accuracy

Use Multiple Tools: Utilize various AI tools to leverage their strengths, pay attention to security levels



PREPARE framework: [Dan Fitzpatrick](#)

ALIGN

- 💡 [Aligned 4-3-2 objectives](#)
- 💡 [Project based learning objectives](#)
- 💡 [From topics to objectives](#)

DEFINE

- 💡 [Evaluation plan](#)

DESIGN

- 💡 [Scenario based multiple choice questions](#)
- 💡 [Self-Evaluation or 360 Feedback](#)

ANALYZE

- 💡 [Thematic Analysis](#)
- 💡 [Analyze and Vizualize Excels](#)
- 💡 [Open Answers Surveys](#)
- 💡 [ROI](#)

ACTION

- 💡 [Prioritize actions](#)



QUESTIONS
COMMENTS
SHARING





THANK YOU

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USAF/AETC CLO