



ACC Command Data & AI Office



ACC Data & AI Upskilling Framework

OVERALL BRIEFING CLASSIFICATION:

UNCLASSIFIED

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Data & AI Manager



Overview

- Defining the problem
- The Plan
- Data/AI personas
- Practitioner Persona
- Community of Practice
- ACC CDAO Site
- The Future





Defining the Problem

ACC CDAO LOE #4: Data and AI Literacy, Training, & Outreach

■ Guidance

- “AI ready by 2025” (National Security Commission on Artificial Intelligence)
- How do we create an **“AI ready”** workforce by 2025 that:
 - Meets the need, at different knowledge and responsibility levels
 - Compliments other DAF programs

■ Industry

- *“Concerted education and culture change are necessary but difficult due to the gap between data scientists’ technical expertise and business users’ domain knowledge” – Gartner*
- Amazon has committed to upskilling 20% of its 1.5 Million employees for in-demand skill sets including AI

■ Opportunities

- Training AI models requires **tons** of data!
 - The Air Force already has tons of data – Most AF data is not “AI ready”.
- We have Airmen with this family of skills – or the potential for it - waiting for the opportunity to use it



The Plan

Desired End State:

An ACC where VAULTIS compliant data resides within the Data Mesh and Its Airmen have the skills necessary at each level to operate in the data/AI/analytics domain

■ Plan

- Create a scalable, AFSC-agnostic plan that compliments existing cross-MAJCOM efforts, for potential adoption by SAF

■ Tasks:

- Define data/AI personas across ACC that augments existing DCWF
- Develop a curriculum addressing identified personas
- Align multi-domain strategic communications to the command for awareness – ***point to this briefing***
- Determine methods to incentivize training
- Track metrics associated with completion of persona training, adjusting composition as needed
- Establish a Community of Practice of existing and newly trained Airmen – *a **Data Militia** if you will*

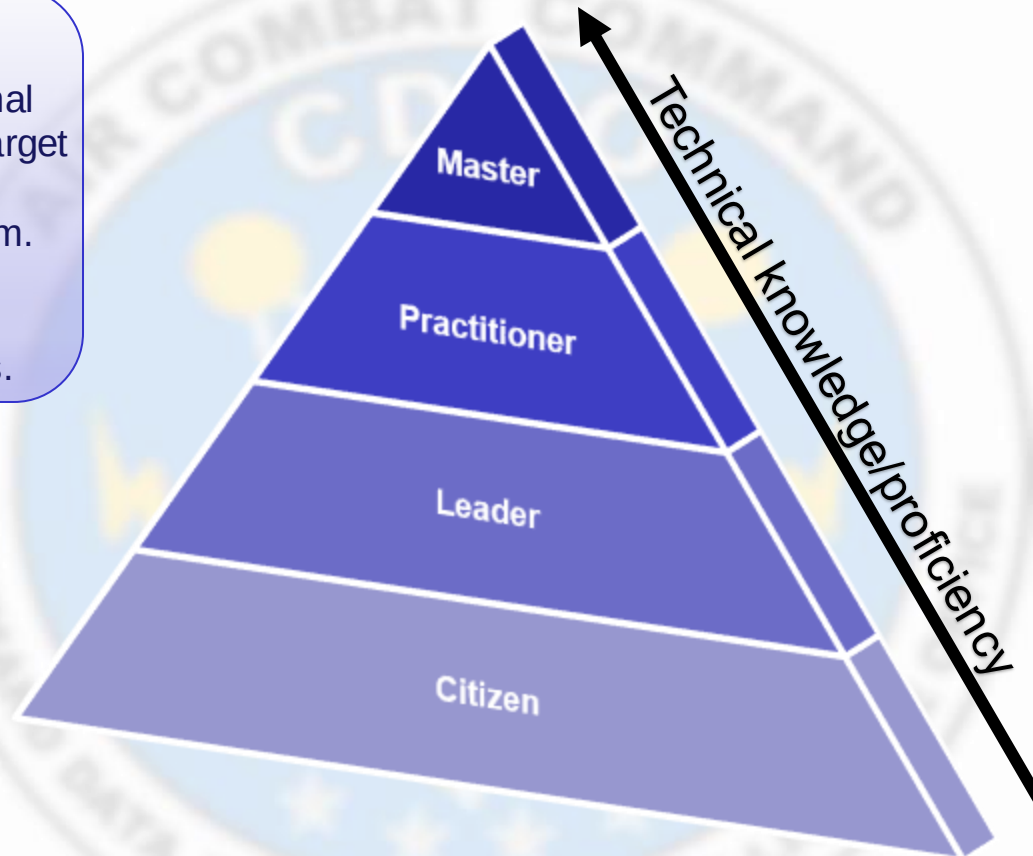
VAULTIS – Visible / Accessible / Understandable / Linked / Trustworthy / Interoperable / Secure



Data/AI Personas

What is a Persona?

Learner personas are fictional profiles that represent the target audience for whom you are designing a learning program. These personas have been created as targets to help develop our Airmen towards.





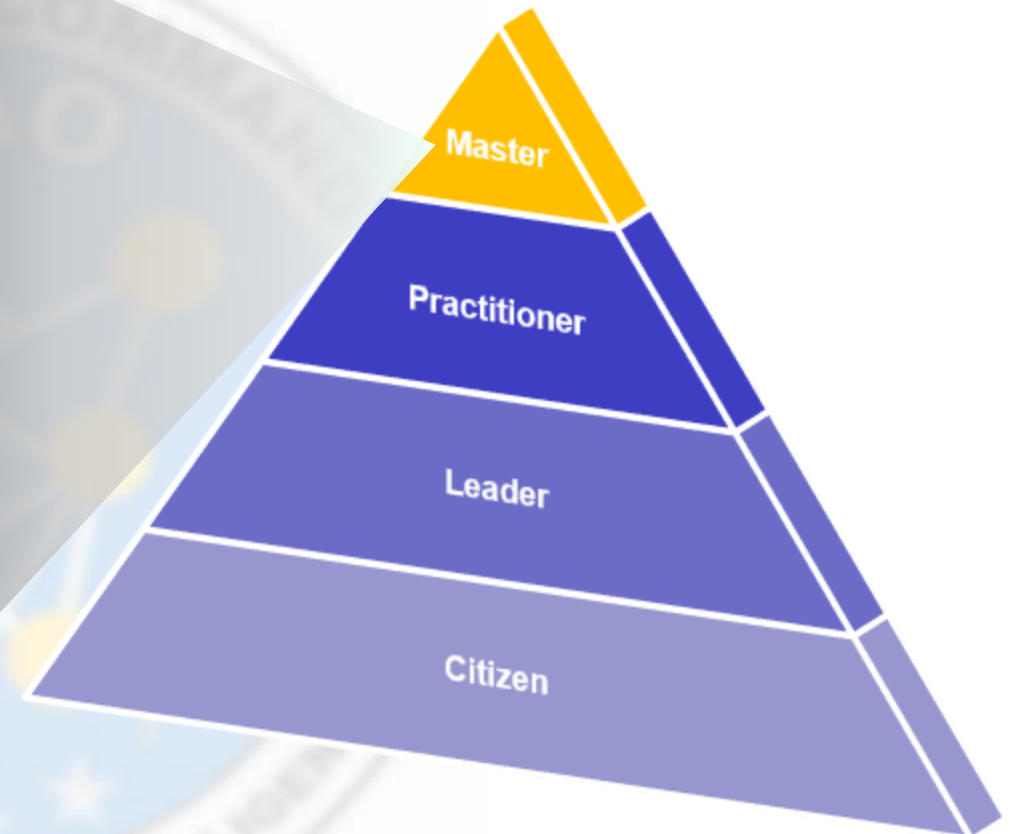
Data/AI Personas

■ Master Persona

- Constitutes a small percentage of the command
- Ideally those who have completed advanced academic degrees and/or fellowships in fields such as Data Science, Data Engineering, and Data Analytics
- Demonstrated applicable work in the field.
- Skill examples: advanced computational analysis, API creation, establishing data pipelines for continuous feeds into automated models, etc. Capable of organizing large projects.

■ Proposed Curriculum

- Accomplished through methods like the Air Force Advanced Academic Degree program and/or attending fellowships like the DAF MIT AI Accelerator Phantom Program

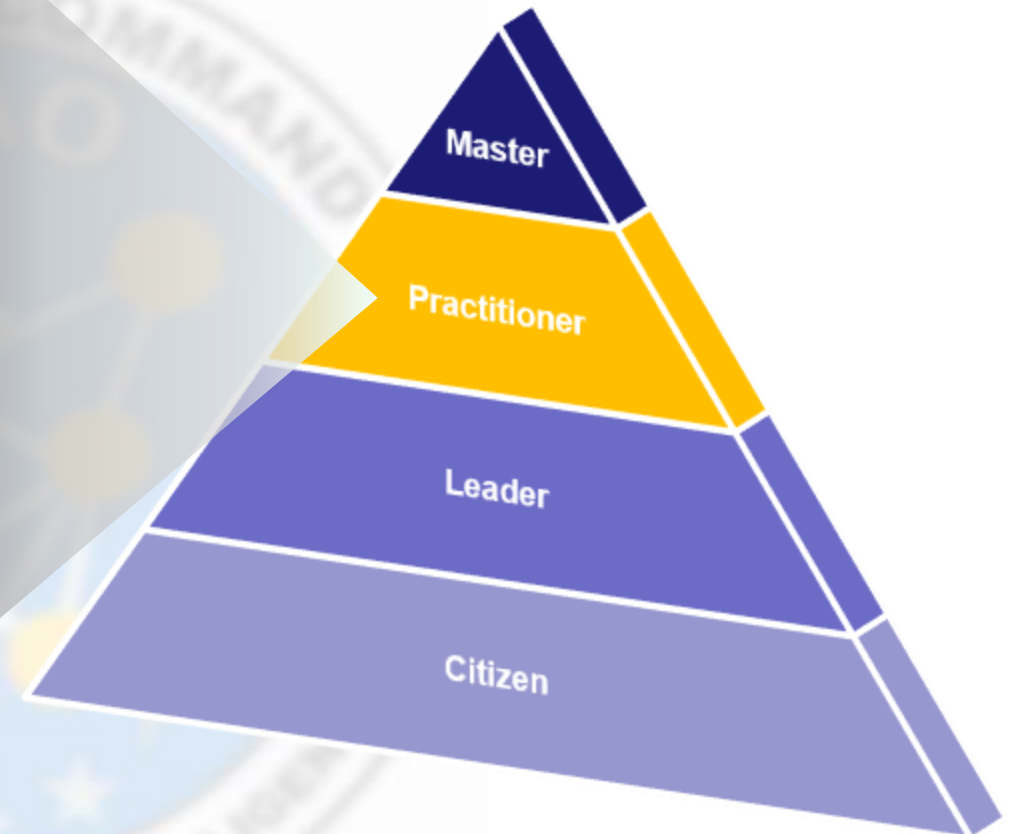




Data/AI Personas

■ Practitioner Persona

We'll come back to this

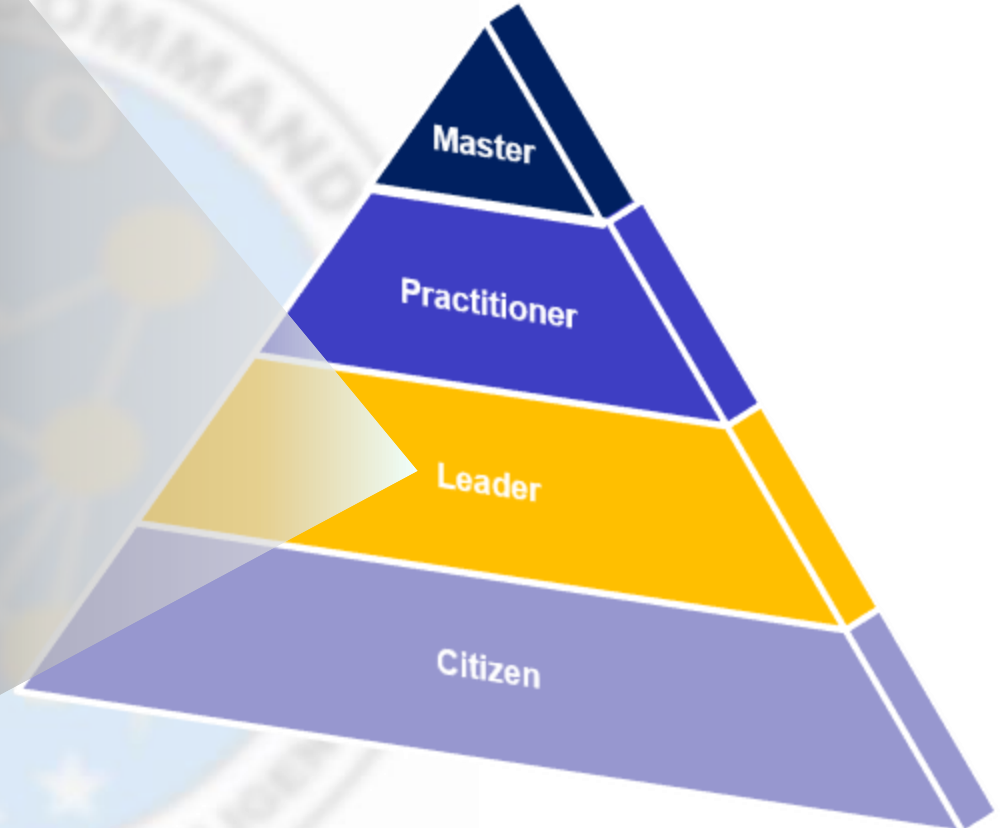




Data/AI Personas

■ Leader Persona

- Consists of two different specializations:
 - **Senior Leader**
 - Ensuring those working at the decision-making level are armed with adequate information to understand the impact of those decisions in the data & AI space.
 - **Proposed Curriculum**
 - Gladstone Foundations of AI course
 - Digital U Senior Leader AI curriculum
 - **Data Stewards**
 - Specific, appointed positions identified in the DWCF with associated KSATs.
 - **Proposed Curriculum**
 - Under development





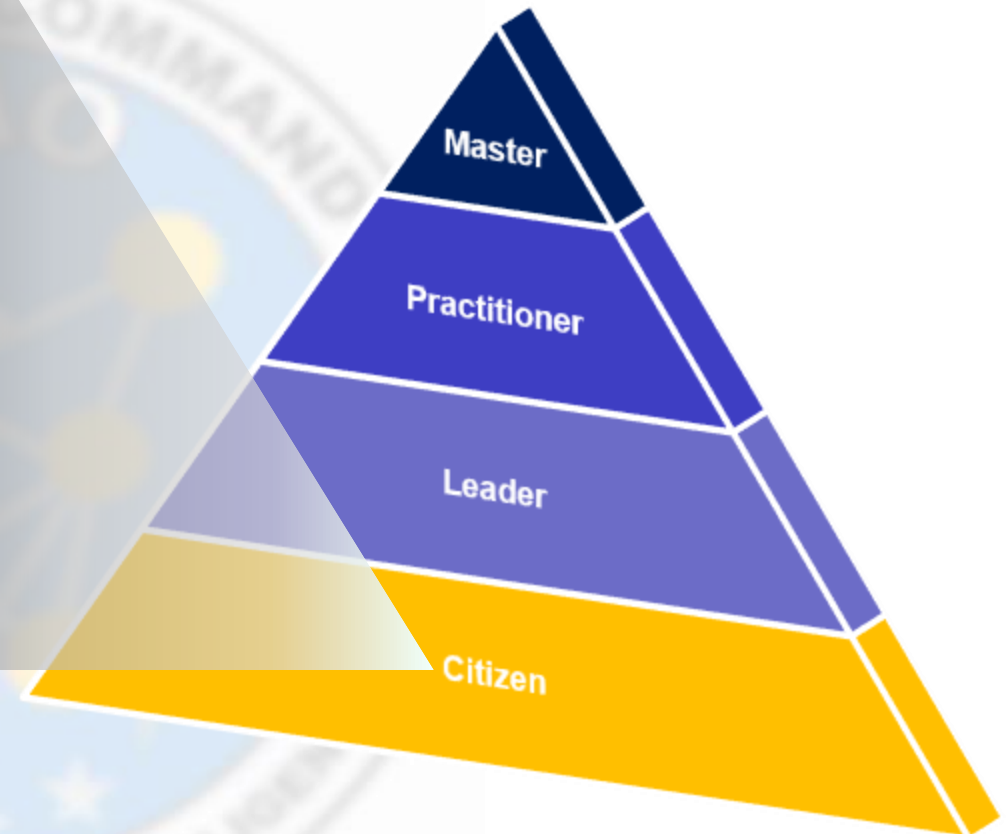
Data/AI Personas

■ Citizen Persona

- The Citizen category is the vast majority of the population, provides a basic general understanding of Data and AI
- The purpose of the curriculum for Citizens is to give them a baseline understanding of:
 - the significance of quality data
 - the relationship between data and AI
 - the basics of AI

■ Proposed Curriculum

- A number of foundational courses are available including “AI Foundations for Everyone” via Digital U/Coursera and MIT Horizons “Artificial Intelligence Foundations”





Practitioner Persona

...coming back to that Practitioner thing

We currently already have SMEs imbedded in our units. How can we get them the skills they need to start leveraging Data & AI as practitioners?

- **Not every problem requires a doctorate to solve it**
 - Arming our Airmen with the capability to leverage existing AI tools is the force multiplier we need to keep step in Great Power Competition
- **Having the right data and infrastructure is half the battle**
 - A workforce that knows how to make data AI-ready, how to access that data, and how to integrate it with modern analytics and AI tools is the other.
- **Missed opportunities in the innovation space**
 - Ever have a unique solution at your unit atrophy after a single PCS cycle/contract expiration?





Practitioner Persona

■ Partnering with Digital University

- Targeted curriculum
- Built on a foundation of KSATs from various DCWF roles
- Starting a cohort of 100 licenses by the end of FY'24
- Utilizing Workera skill assessments and AF-first capstone lab following the ML Ops process



■ 2 Paths:

Level 1

- Similar to a Data Analyst
- Learn to use low code/no code products and BI tools in the existing data fabric environments to create dashboards, data analytics, and AI products
- No lab for skill validation

Level 2

- Similar to an AI/ML Specialist
- Learn to code using IDEs like Jupyter notebook, create SQL queries, interface with APIs, etc.
- Skill validation lab using case study and data set in order to complete



ACC Data & AI Community of Practice

"A group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly"

■ We want you! Join the Data Militia

- If the goal is to deputize our Airmen to be practitioners in the data and AI environment, we want somewhere for them to be able to meet and share ideas.

■ Arm our units

- Instead of different units trying to solve the same problems, provide a space that documents successful TTPs and facilitates sharing that information.

■ Mentorship and Collaboration

- Not everyone is surrounded by data scientists and SMEs, provide an opportunity for peer review and support

■ Hackathon Sponsorship

- Lock the right people with the right knowledge and skills in a room focused on a single goal for a week





ACC CDAO Site

<https://usaf.dps.mil/teams/CDAO>

Vendors: acc.a6t.IndustryEngagement@us.af.mil

- We have a robust dedicated intranet site!
 - We host links to **CDAO Upskilling Curriculum** for each persona
 - Maintain roster of completed training
 - We host the **ACC Data & AI Community of Practice**
 - Repository of existing and ongoing AI projects
 - Publish research, lessons learned, etc. within the community
 - Point to collaboration sites and opportunities
 - Host data directory/catalog
 - Host guidance, governance, and articles





The Future

- Explore incentivization options
 - Certificate
 - awards/positions/etc.
- Influence talent management of Master/Practitioner personas
 - SEI?
 - Payback assignments?
- Air Force Kaggle (aka remote hackathons)
- Analyze first year academic data
- Continue to partner with fellow MAJCOM CDAOs