



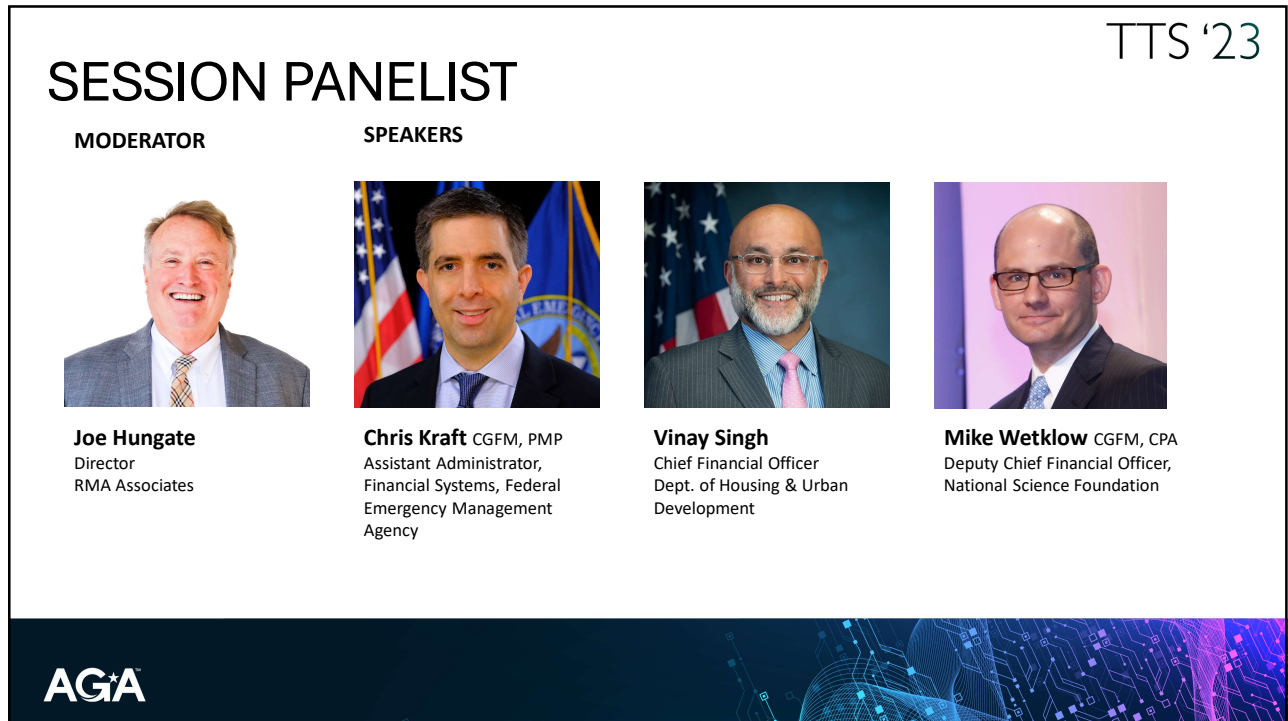
TTS '23

T 103 – Navigating AI Innovation

Room: Ballroom B
November 16, 2023 | 11:30 am - 12:20 pm








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TTS '23

SESSION PANELIST

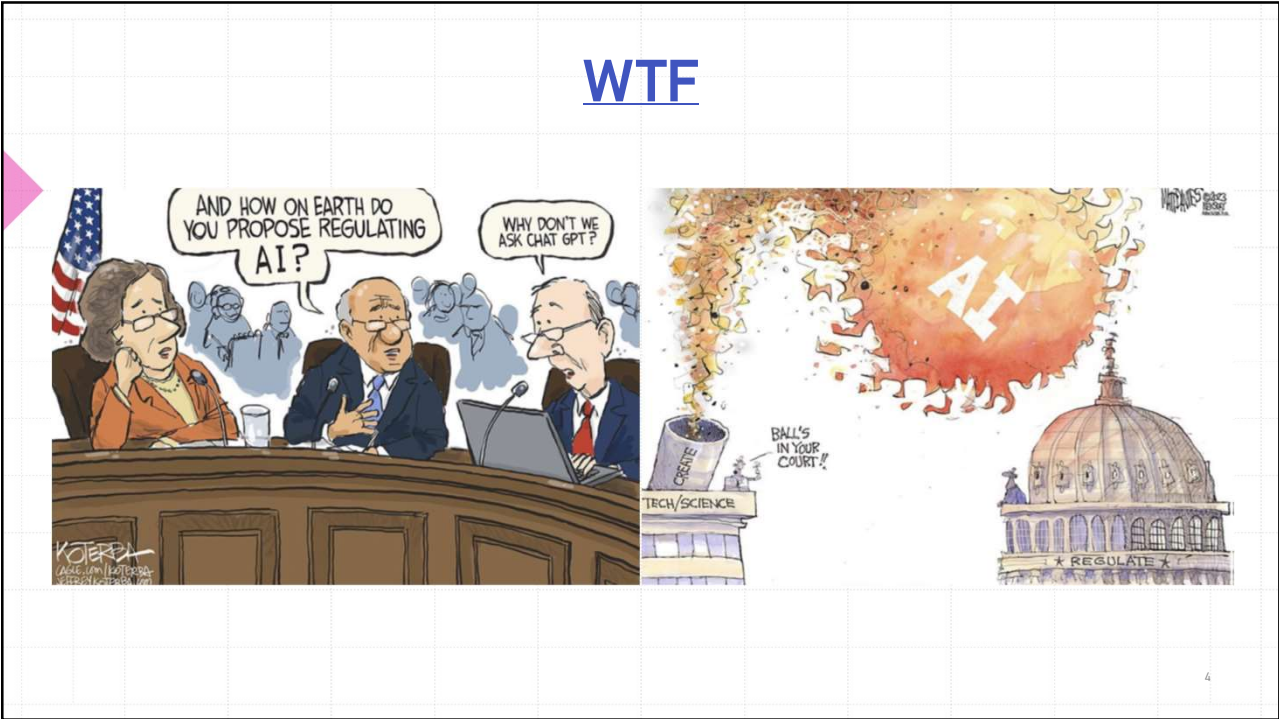
MODERATOR	SPEAKERS		
			
<p>Joe Hungate Director RMA Associates</p>	<p>Chris Kraft CGFM, PMP Assistant Administrator, Financial Systems, Federal Emergency Management Agency</p>	<p>Vinay Singh Chief Financial Officer Dept. of Housing & Urban Development</p>	<p>Mike Wetklow CGFM, CPA Deputy Chief Financial Officer, National Science Foundation</p>



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AI is Enabling Transformation

AI offers a new paradigm for how government mission is executed.

AI redefines the mission.

The capabilities of AI have gone way beyond classic visualizations and data analytics.

Insights for every decision.

Using AI to tap into insights in large volumes of data to help optimize operations, citizen services and inform mission workers across every decision.

Accelerating human performance.

AI systems need to be inherently 'human' systems.

Own the new reality.

Own the new reality, where business, data and technology transform one another.

Global leaders agree AI is essential to their organization's success more now than ever before¹

¹ Based on Deloitte's State of AI in the Enterprise, 5th Edition - survey of ~2,620 leaders

94%

indicate that AI will be critical to the success of their organization over the next five years

85%

expect increased investment in AI tech and talent over the next year

97M

jobs will be created across 26 countries by 2025

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Spectrum of AI Capabilities

Predict
Identify high-impact patterns and trends to generate a series of predicted outcomes.

Movie recommendations

Automate
Includes executing processes that require little human judgment or intervention.

Gmail Autocomplete

Hope...all is well.

Interpret
Includes reading documents, and deriving language analysis from that data.

Auto-generated News or Captions

Detect
Includes identifying objects and patterns through the analysis of documents, pictures, and video streams.

Airport Security using Eye Scanner

Interact
Includes engaging with humans in real-time communication, acting as a virtual assistant.

Smart Assistants (e.g., Amazon Echo)

Simulate
Includes creating a virtual representation that serves as a real-time digital counterpart, a technique called "digital twin."

Try On At Home AR (e.g., L'Oréal's Style My Hair app.)

Create
Includes generative capabilities to create new content in text, images, audio, videos, and simulations.

Generated Art (e.g., Lensa.ai)

Deloitte

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6

Communication
is critical

Phases

Forming
Storming
Norming
Performing

CHANGE MANAGEMENT

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AI Guidance and Regulations

Federal, State and Local agencies are considering AI Guidance and Regulation

White House AI Bill of Rights
Provides guidance to American innovators to harness the extraordinary potential and benefits of automated systems and AI **while protecting the American public's rights**, opportunities, and access to critical resources or services.

Anticipated Guidance from OMB
Agencies may be required to **designate an AI Official**, conduct a maturity and **compliance assessment**, and develop their own AI strategy

Executive Order 13960
Guidelines **promoting the use of trustworthy AI by Federal Agencies** to more effectively deliver services to the American people and foster public trust in this technology.

NIST AI Risk Management Framework
The NIST AI Risk Management Framework (AI RMF) is intended for voluntary use and to improve the ability to incorporate trustworthiness considerations into the design, development, use, and evaluation of AI products, services, and systems.

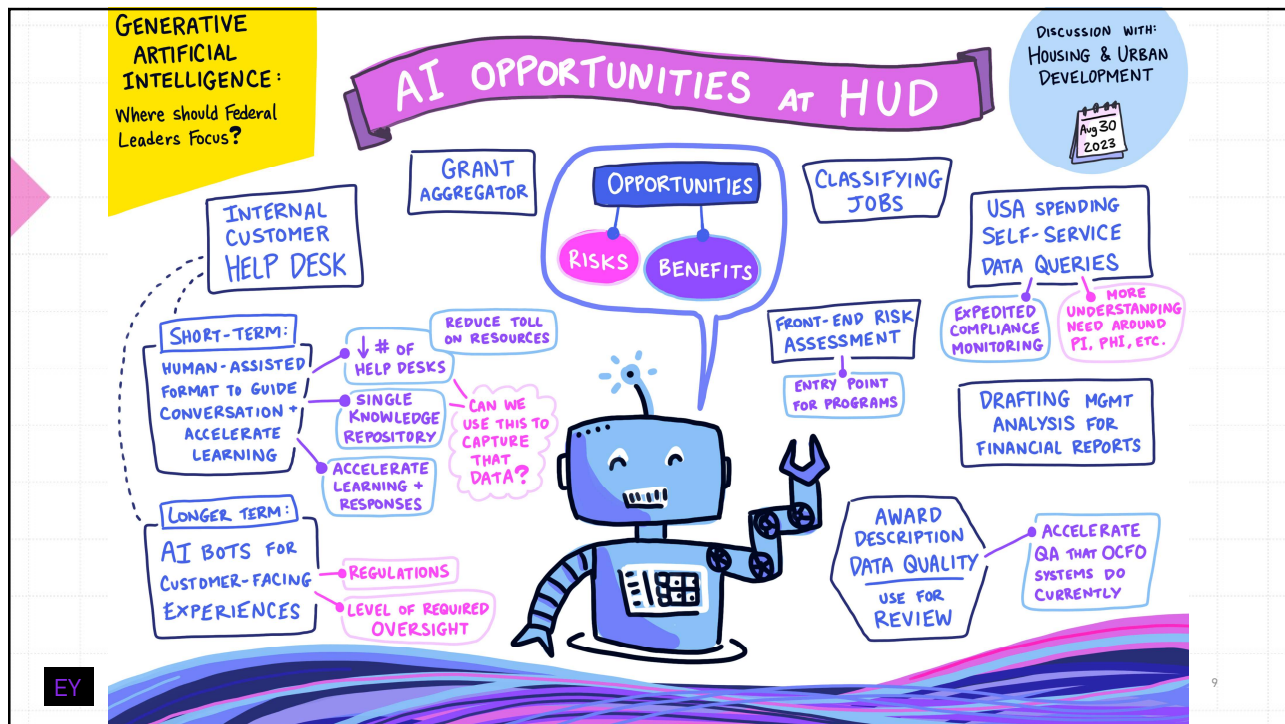
*We also need to consider implications for existing regulations such as A-123.

- Washington**
 - Prohibits use of facial recognition and predictive policing technologies
- Vermont**
 - Created the Division of Artificial Intelligence
- Massachusetts**
 - Established Commission on Automated Decision-Making by Government in the Commonwealth
- New Jersey**
 - Producing report on impact of AI-powered technology on state's economy
- Washington, DC**
 - Prohibited the use of algorithms for determining employment, housing, healthcare, and financial lending eligibility
- South Carolina**
 - Prohibition of automated decision system (ADS) for content placement in websites
- Texas**
 - Texas Data Privacy and Security Act
- California**
 - Deepfake Working Group
 - Automated Decision Systems Accountability Act
- Colorado**
 - Created AI intelligence task force
 - Protecting Consumers from Unfair Discrimination in Insurance Practices

■ Enacted
■ Proposed
■ Enacted and Proposed

As of June 2023, and list is not comprehensive

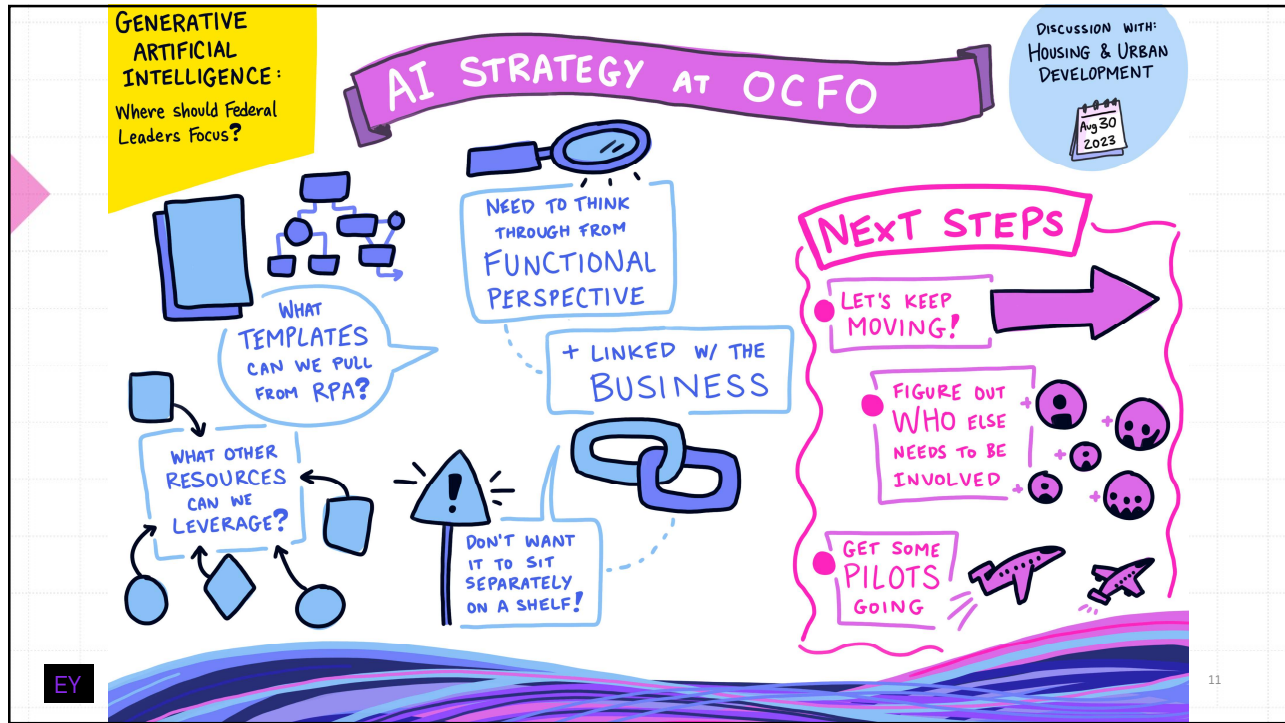
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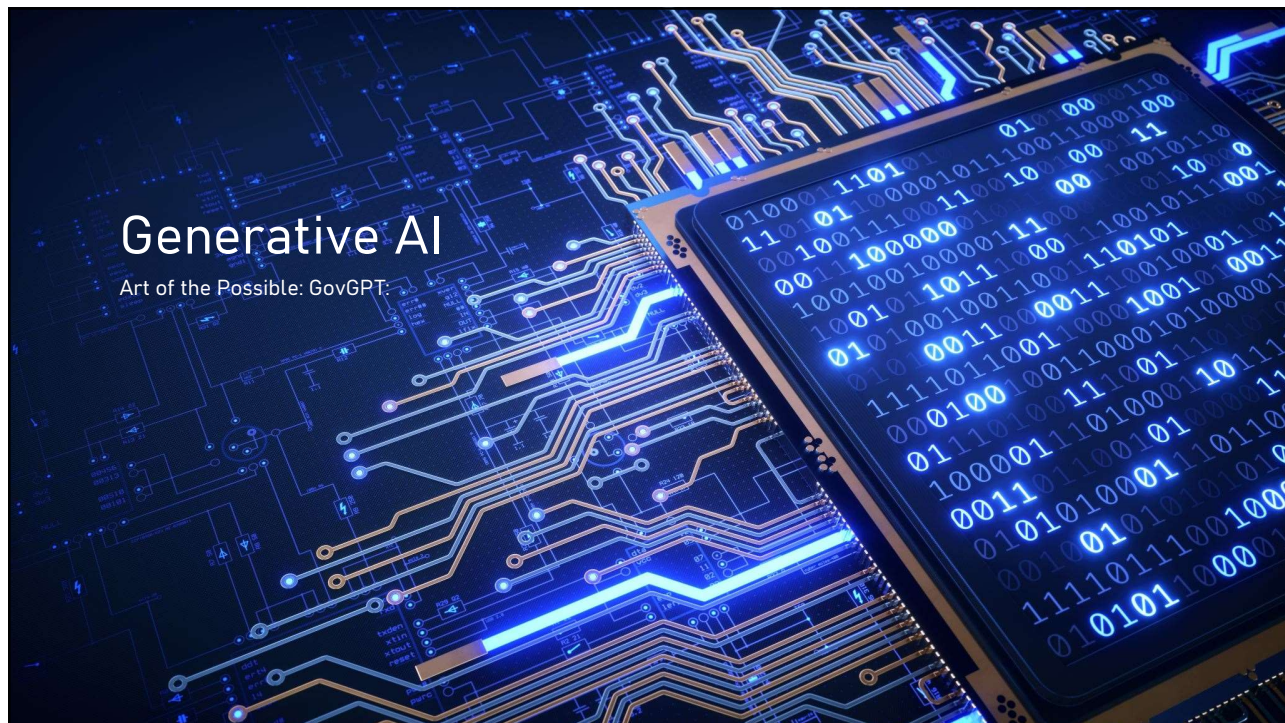
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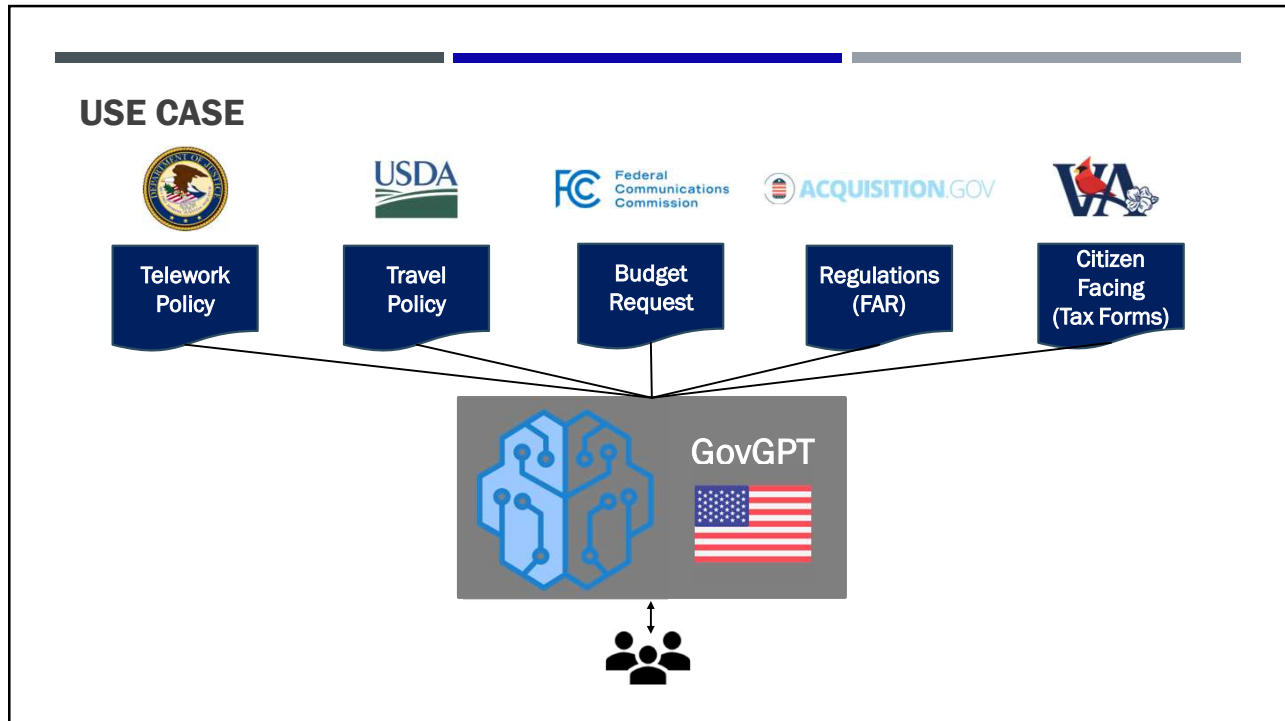
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DEMONSTRATION

GovGPT

Demonstration

https://youtu.be/pg2Uglq_NcY

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GOVGPT & THE AI EXECUTIVE ORDER



<https://www.youtube.com/watch?v=ogcikzM2hRk>

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Motivation



The Accounting STEM Pursuit Act of 2021 would have linked accounting and STEM. As the accountability profession embraces cybersecurity, information integrity and systems controls, and its use of emerging technologies and techniques, such as blockchain and data analytics, becomes normative, the role of the accountant is changing. Accountants can now make more informed decisions, solve complex problems, and deliver better audit, finance and tax service because of the knowledge gained from vast data holdings.

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Generative Artificial Intelligence



ChatGPT is one of the fastest-growing apps of all time. In January 2023, just two months after its launch, ChatGPT was estimated to have had over 100 million active users. In February, according to web analytics company Similarweb, the app received over one billion visits; by May that number had doubled.

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S

Pandas

tidyverse

hadoop

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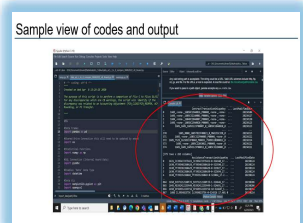
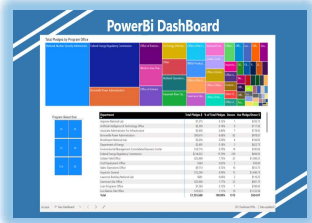
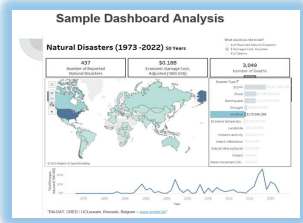
Data Analytics Upskilling Cohorts

- As a Council, we're **laser-focused on Workforce Modernization**
- We're implementing a **wide range of pilot efforts** – trying many different ideas – in order to see what might be most successful
- Following the in the footsteps of what other Councils have done (e.g., CIOC, CDOC) we recently conducted a **year-long Data Analytics Upskilling Pilot**
- Our goal was to recruit a **cross-selection of Federal volunteers**, give them access to Data Analytics **MOOC training** opportunities and provide light guidance
- What could they achieve in an Agile Self-paced learning environment?
- **Goal: Answer these Challenges**
 - ✓ Could we build effective curriculums?
 - ✓ Would self-paced learning work?
 - ✓ Could they convert that knowledge into valuable Capstone projects?

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CFOC Data Cohort Capstones



AGA Datathon



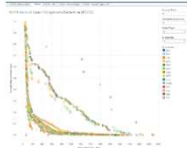
Be Useful

NSF OCFO has made significant strides leveraging more advanced analytics in support of financial management and grant monitoring activities.

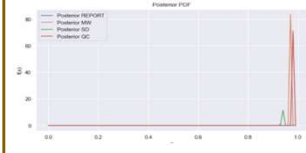
- A key goal for NSF OCFO in the upcoming year will be to take what was learned in developing these use cases and apply it to practical data products implementations.

Phase 1: Experimentation and Expansion of Analytical Capabilities

Financial Open Obligations Detective (FOOD) Model



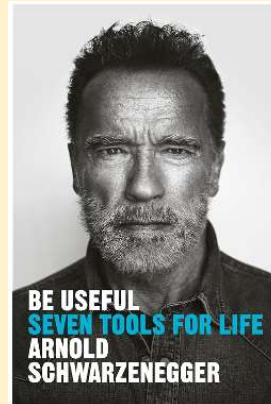
Single Audit Explorer V2.1



FORCE (BFA Lingo 4G use case)

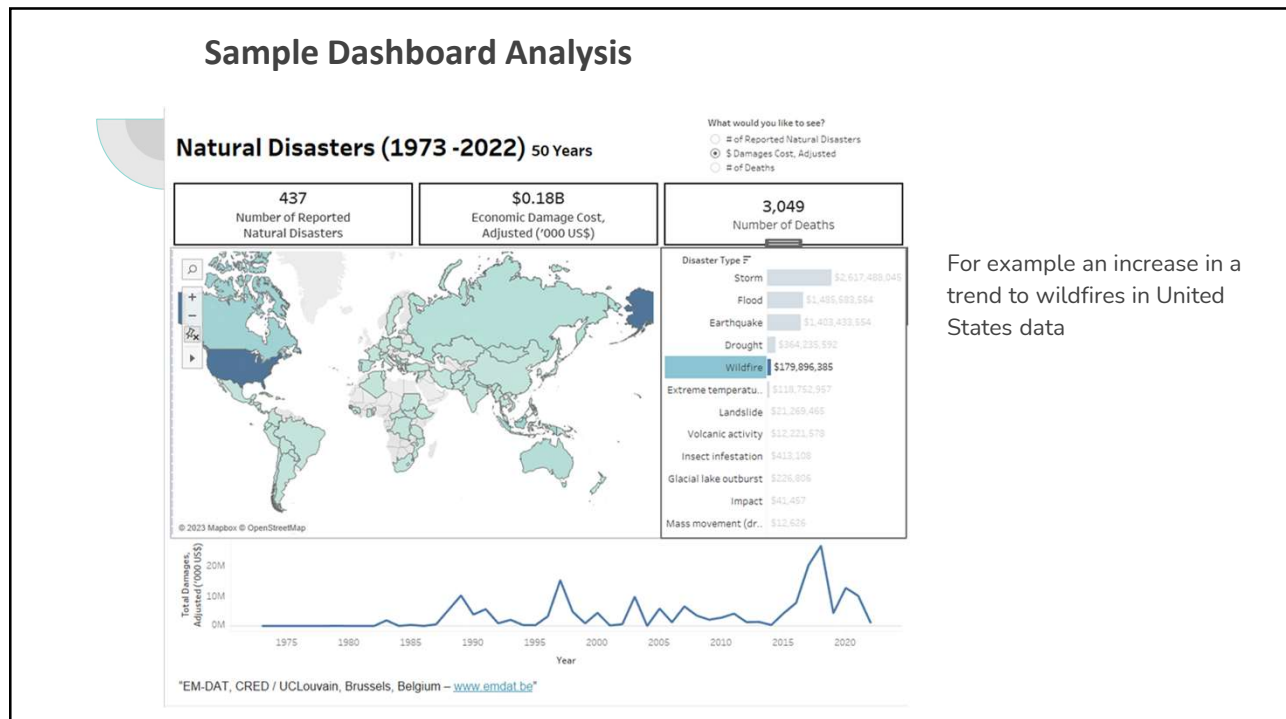


Phase 2: Be Useful

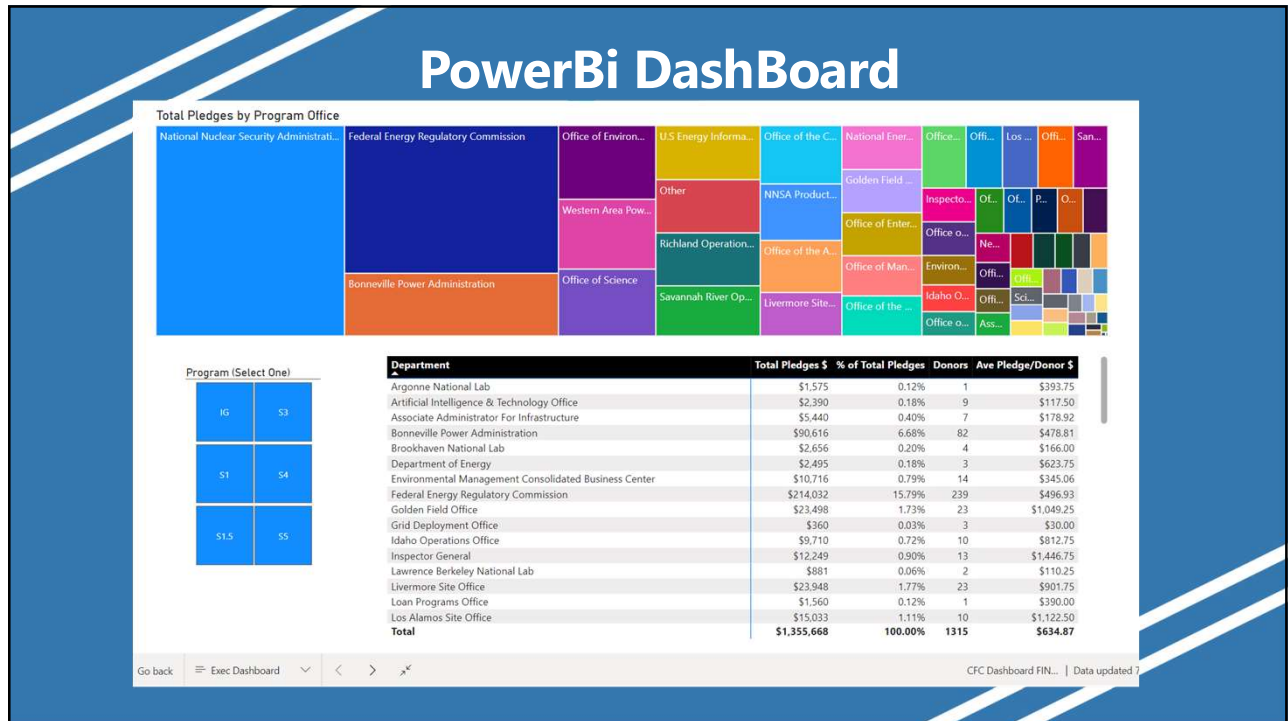
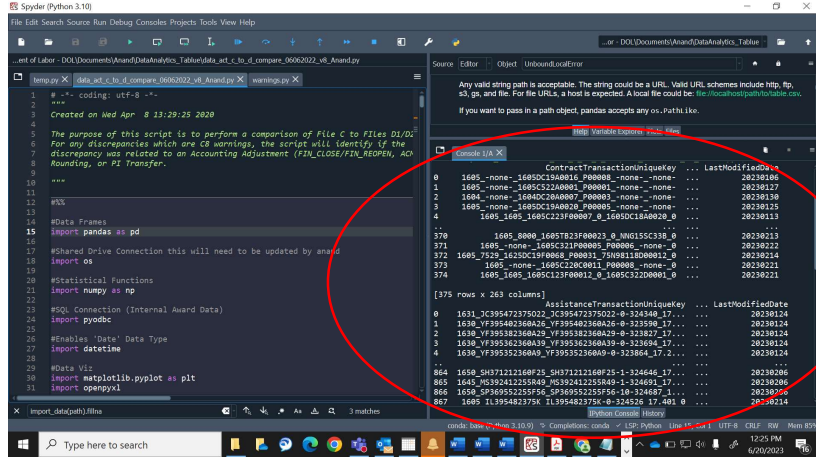


Attachments

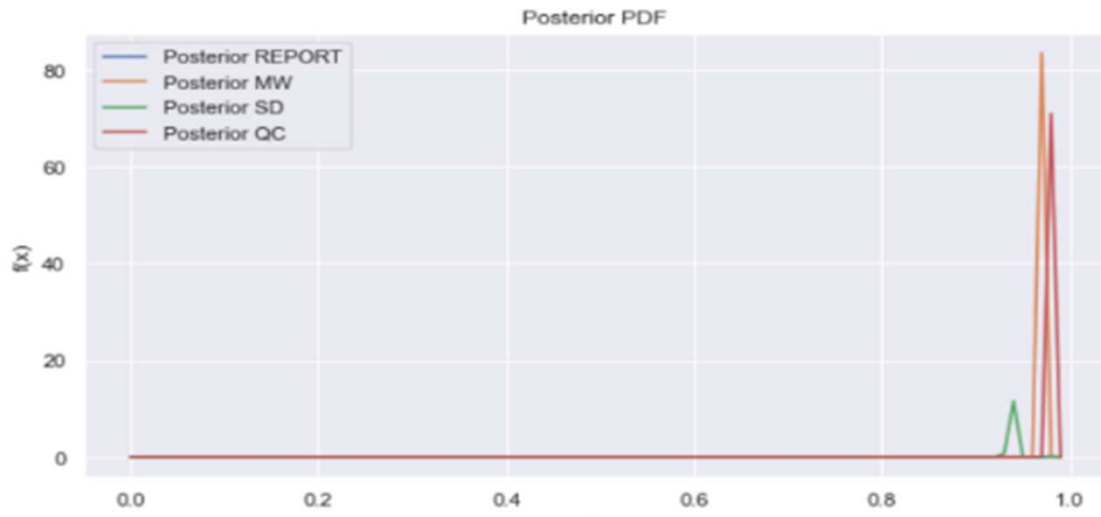
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Sample view of codes and output



NSF Single Audit Explorer



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NSF FOOD Model



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NSF FORCE (Lingo4g)



Youtube Demo: <https://www.youtube.com/watch?v=r2MSKflcaw0&t=29s>

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Thank You for Participating!

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CONNECT WITH US

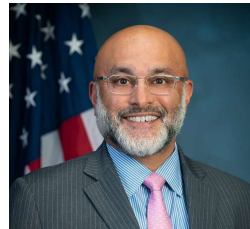
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