NATIONAL ARCHIVES

Information Services

Exploring AI at the National Archives and Records Administration

Gulam D. Shakir
Chief Technology Officer

February 10th, 2024

Agenda

1. Background
   a. Executive Order on AI
   b. Draft OMB Memo
2. Exploring AI at NARA
   a. Introduction
   b. NARA Use Cases
3. Questions

Artificial Intelligence Executive Order

Executive Order (EO) 13960, *Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government*, was issued December 8, 2020. The Order encourages the ongoing adoption of Artificial Intelligence (AI) throughout the Federal Government.

- It states that "Agencies must… design, develop, acquire, and use AI in a manner that fosters public trust and confidence while protecting privacy, civil rights, civil liberties, and American values".

The **Section 3** of the EO states that agencies must adhere to the following principles in developing AI solutions:

- Lawful and Respectful of our Nation's Values
- Purposeful and performance-driven
- Understandable, transparent, and accountable
- Accurate, reliable, and effective
- Safe, secure, and resilient
- Regularly monitored

In September 2023, OMB circulated for agency review a draft, numbered Memorandum titled, "Advancing Governance, Innovation, and Risk Management for Agency Use of Artificial Intelligence".

As drafted, this Memorandum would establish three goals, with requirements for agencies:

- Strengthen AI governance. Required actions: Designate a Chief AI Officer; convene an agency AI governance body; report compliance to OMB and the public; develop AI use case inventories; and develop AI use case metrics.

- Advance AI innovation. Required action: Develop an agency AI strategy, including: Use cases; AI maturity model, assessment, and goals; governance plan; plan to remove barriers to AI innovation; plan o build AI risk management capability; assessment of the AI workforce; and planned AI investments.

- Manage risks from the use of AI. Actions: Terminate use of safety-impacting or rights-impacting AI that doesn't meet minimum practices; effectively identify, procure, manage AI that meets minimum practices; and ensure continued compliance with minimum practices.

Information Services

NATIONAL ARCHIVES

- Since 2019, NARA has engaged in artificial intelligence (AI) and machine learning (ML) by researching and documenting use cases that would benefit NARA as an enterprise.

- In 2021, NARA partnered with VirginiaTech to host a workshop on exploring new approaches in AI and ML for digital collections focusing on the importance of ethical frameworks, and opportunities for institutional collaboration.

- Also, the Chief Information Officer Council (CIOC) established the *Responsible AI Official (RAIO) Council Roundtable* to gather and share strategies, knowledge, and best practices to develop government-wide policies and procedures for the effective, ethical application of AI technologies in keeping with direction from Executive Order 13960.

- NARA representatives on the RAIO Council Roundtable:
  - Chief Information Officer
  - Chief Technology Officer
  - Chief Data Officer

In June 2023, OMB requested that agency RAIOs coordinate with relevant stakeholders in their agency (e.g., CIOs, CDOs, Senior Agency Officials for Privacy) to review and provide comments on the draft memorandum implementing Section 104 of the AI in Government Act and Sections 7224(a), 7224(d), and 7225 of the Advancing American AI Act.

Through this request, and pursuant to Section 5 of the Executive Order (EO) 13960, federal agencies were also required to inventory their AI use cases and share their inventories with other government agencies and the public (NARA's publicly available use cases https://www.archives.gov/data/ai-inventory)

These use cases categories include, but are not limited to:
- Search based on AI
- PII detection based on AI
- Self-describing records
- Workforce tools that support employees

NARA AI Use Case Inventory

Search based on AI (internal systems)

- Freedom of Information Act (FOIA) Discovery AI Pilot to search documents using NLP based techniques and redact information based on the nature of the FOIA request (**R&D phase**)
- AI Pilot for National Declassification Center (NDC) to mark contents of a classified document that can be declassified, redact information before release and track the declassification process (**Planned**)
- Train on ERA and EOP systems to develop a new Large Language Model (LLM) for to use in Generative AI (**Planned**)
- Develop semantic search for ERA/EOP/DAS based on the custom model developed (**Planned**)
- Develop a natural language based chat interface (like ChatGPT) to interact with the ERA/EOP/DAS documents (**Planned**)
- Explore AI-based search for CMRS using VA's digitized records (**Planned**)
- Create an AI based knowledge articles chat interface for CMRS when working with Veterans documents (**Planned**)

Search based on AI (public-facing systems)

- Semantic search pilot with NAC using AWS (**Pilot phase**)
- Improve full-text searching of records and OCR/transcribe everything
- Metadata extraction with artificial intelligence (AI) tools (search is dependent on this functionality)

PII detection based on AI

- AI Pilot Project to Screen and Flag for Personally Identifiable Information (PII) in Digitized Archival Records (**Pilot phase**)
- Automated Data Discovery and Classification Pilot using AI (**Planned**)

AI assisted to create draft records description

- Auto-fill of Descriptive Metadata for Archival Descriptions (**Planned**)
- A pilot to describe certain descriptive metadata such as content/scope based on digital objects content in the DAS system (**Planned)**
- A pilot to extract entities inside the digital documents and create workflow so an Archivist can attach them as Authorities (**Planned)**

Information
Services

NATIONAL
ARCHIVES

Workforce tools that support employees

- Generative AI for Google Workspace for Internal Employees (**planned**)
  - Draft, reply, summarize, and prioritize your Gmail
  - Write and refine content in Gmail and Google Docs
  - Create original images from text, from inside Google Slides
  - Transform raw data to insights and analysis via auto completion, formula generation, and contextual categorization in Sheets
  - Generate and capture notes in Meet
  - Enable workflows for getting things done in Chat

National Archives | Information Services

Questions or Comments