Artificial Intelligence Strategy for the U.S. Department of Justice

December 2020

U.S. Department of Justice
Office of the Chief Information Officer

Contents

Message from the CIO

I am pleased to present the inaugural Artificial Intelligence (AI) Strategy for the U.S. Department of Justice (DOJ). The rapid advance of AI capabilities continues to transform activities in Government, commerce, and everyday life. To realize the full potential of AI, the Department requires the combined efforts of our industry partners, Component leadership, and our workforce.

This strategy is the result of a department-wide effort led by our Chief Technology Officer and provides a foundational framework that will provide a coordinated approach to AI. Our strategy outlines specific actions and outcomes aligned with several areas of emphasis: cultivating an AI-ready workforce, aligning activities with the DOJ Data Strategy, building a governance structure, and supporting Department-wide AI adoption—with implementation designed to adapt to the evolving technology landscape.

DOJ has a long history of embracing transformative technology to advance mission effectiveness and efficiency. Implementation of this strategy will position the Department to adopt AI effectively, efficiently, and in a manner that fosters public trust and confidence.

Sincerely,

Melinda Rogers
Deputy Assistant Attorney General
Chief Information Officer (CIO)
Chief Data Officer (CDO)
Department of Justice

Introduction

"The age of artificial intelligence has arrived..."
— Artificial Intelligence for the American People, https://www.whitehouse.gov/ai

Building upon decades of technological efforts, recent innovations in computing and storage have unleashed an exploration and rapid deployment of Artificial Intelligence (AI). While modern implementations have limitations and complexities, AI powers many of our everyday conveniences – from connecting with friends and family, to selecting the next song on our playlists, to how we control our smart homes. Today, as government, industry, and academia work to embrace the full promise of AI, the Department of Justice (DOJ or Department) needs to guide its own implementation and adoption in order to keep pace with American innovation.

This strategy will provide the flexibility to accommodate our evolving understanding of AI and the technology encompassed in its various definitions through four enterprise goals. First, the Department will cultivate an AI-ready workforce by addressing gaps in knowledge, risks, and capabilities through training, recruitment, and retention. Second, the use of AI models and algorithms are only as good as the data used to design, validate, and test them; by leveraging data efforts laid out by DOJ's Data Strategy[1] and Data Governance Board[2], we will quickly implement AI data standards and maximize the appropriate use and reuse of training data. Third, the Department will promote ethical and efficient governance of AI in accordance with established law, guidance, principles, and best practices to provide clear guardrails for DOJ Offices, Boards, Divisions, and Bureaus (collectively known as Components) as they apply AI to their missions. Fourth, through pilots and knowledge sharing, DOJ will accelerate the adoption of AI and allow mission operators and stakeholders to realize greatly improved capabilities implemented in a manner consistent with government-wide principles and Department guidance.

These goals will enable the Department to navigate the different challenges posed by AI including build versus buy, commercial products with embedded AI, standalone models and algorithms, and the scope of technology considered to be AI. Implementation of this strategy will position the Department to adopt AI effectively, efficiently, and in a manner that fosters public trust and confidence.

---

[1] https://www.justice.gov/file/1560166/download

[2] https://www.justice.gov/open/open-data

Goals

The DOJ Artificial Intelligence Strategy outlines the following four goals that, when implemented, will provide the flexibility to accommodate our evolving understanding of AI and the technology encompassed in its various definitions.

Goal One: Workforce

Cultivate an informed AI workforce inclusive of business, mission, and technical subject matter experts to maximize the value AI brings to mission outcomes.

Goal Two: Data

Fully incorporate AI-specific factors within the DOJ Data Strategy framework.

Goal Three: Governance

Develop policies and establish standardized practices and procedures to manage the use of AI across the Department.

Goal Four: Adoption

Accelerate the appropriate use of AI through Department-wide policy and technical capabilities.

For each goal, the strategy outlines specific actions, desired outcomes, and responsibilities for implementation at both the Component and enterprise levels. Only through collaboration within and across Components will the Department achieve success.

Goal One: Workforce

Cultivate an informed AI workforce inclusive of business, mission, and technical subject matter experts to maximize the value AI brings to mission outcomes.

Action

Ensure recruitment, education, and retention programs match the full scope of needs to support AI. Review and adjust as necessary human capital policies, career progression, and rotational opportunities to promote AI awareness across all career disciplines and proficiency within the technical staff. Provide training opportunities and pathways to advance expertise in order to upskill the workforce.

Enterprise responsibilities

Working with Department human capital leaders, the Data Governance Board and CIO Council will develop a modern workforce ready to use AI. In alignment with statutory, regulatory, and policy requirements, Department officials shall:

- Promote strategic workforce efforts to hire, train, and retain personnel with AI skills

- Leverage the DOJ Data Strategy's efforts to enable an AI workforce by sharing common position descriptions, skills matrices, definitions, and continuous learning methods

- Maintain and promote rotational duty opportunities and shadowing experiences

- Partner with other federal agencies, industry, and academia, to establish opportunities for knowledge-sharing

- Raise AI awareness and literacy across the Department's workforce

DOJ OCIO shall

- Identify AI training opportunities available as a part of enterprise products and services available from government and external partners

- Explore potential partnerships for innovation pipelines and externship opportunities

- Augment the enterprise data workforce portal to support the AI workforce

DOJ Component responsibilities

Component CIOs, CDOs, human capital leaders, and relevant stakeholders shall:

- Actively manage the AI workforce to meet current and emerging mission requirements

- Assess the workforce requirements required to hire, train, and, retain personnel with AI skills

- Train the workforce to use AI effectively

- Update AI and IT-related position descriptions to be current, relevant, and shared for inclusion on the Department's workforce portal

- Promote rotational duty opportunities and shadowing experiences that align to Component workforce needs, and explore potential partnerships for externship opportunities

Outcome

The Department's workforce understands the capabilities and advocates for the appropriate use of AI. Resources exist for the workforce to grow or obtain AI expertise. The workforce understands how the adoption of AI will affect their day-to-day work.

Goal Two: Data

Fully incorporate AI-specific factors within the DOJ Data Strategy framework.

Action

Integrate AI considerations throughout the actions of the DOJ Data Governance Board and the implementation of the DOJ Data Strategy. Identify data-related best practices for the use of AI.

Enterprise responsibilities

Working with Department stakeholders, the Data Governance Board and CIO Council will promote the use and availability of data to support the Department's AI efforts. In alignment with statutory, regulatory, and policy requirements, Department officials shall:

- Define AI-related metadata fields in the data management templates and data catalog

- Develop and update data governance, standards, data-sharing risk assessments, and training to address AI challenges (e.g., data handling restrictions, bias, anonymization, synthetic data, records management)

- Establish when training data should be included in data management templates

- As necessary, identify and manage risks with training data raised by specific DOJ missions

DOJ OCIO shall:

- Update Department data policies and standards as necessary to incorporate AI considerations

- Maintain the Department-wide data catalog with AI metadata fields

- Update data management templates to capture AI-specific requirements

DOJ Component responsibilities

Component CIOs, CDOs, and relevant stakeholders shall:

- Ensure Component data management processes reflect AI data requirements

- Propose AI-related metadata fields for inclusion in the data management templates

- Document training data within data management templates

- When possible, share training data through the DOJ data catalog

- Manage risks associated with data labeling and continual learning

Outcome

The Department's data enterprise supports the development and use of AI through traceable, catalogued, and appropriately available data for reuse. Enterprise standards include AI considerations and apply them to all data assets. Data stewards understand technical, cybersecurity, and governance considerations sufficiently to align developed AI models and algorithms with government-wide principles.

Goal Three: Governance

Develop policies and establish standardized practices and procedures to manage the use of AI across the Department.

Action

Establish new and/or update existing policies across all functional areas (e.g., privacy, acquisition, risk management, cybersecurity) to enable the Department's AI capabilities.

Enterprise responsibilities

Working with Department stakeholders, the Data Governance Board and CIO Council will promote effective and efficient governance regarding the use of AI. In alignment with statutory, regulatory, and policy requirements, Department officials shall:

- Develop new or update existing Department policies as necessary to support evolving AI requirements from legislation, guidance, policy, as well as industry best practices

- Adopt or establish AI ethical principles for DOJ by leveraging government-wide efforts

- Establish the criteria for when Components should have the ability to intervene in AI capabilities and modify their models and algorithms as necessary in response to feedback and outcomes

- Communicate the Department's approach to AI in order to promote public trust

- Define metrics and/or a maturity model to measure the Department's use of AI

- Identify, assess, and coordinate appropriate auditing and accountability mechanisms for AI models and algorithms

- Strengthen the Department's cybersecurity posture - including for Identity, Credential, and Access Management (ICAM) – to account for AI specific risks and requirements

DOJ OCIO shall:

- Identify, assess, and coordinate with the Data Governance Board on new AI statutory, regulatory, and policy requirements

- Document AI standards and practices

- Report on AI maturity using developed metrics

DOJ Component Responsibilities

Component CIOs, CDOs, and relevant stakeholders shall:

- Raise Component policy, legal, and mission considerations to the Data Governance Board

- Update Component policies and governance as necessary to incorporate AI considerations

- Implement necessary controls for AI models and algorithms

- Establish AI-specific procedures for validation and testing as appropriate for Component resources, mission applications, and enterprise risk

- Assess and report AI capabilities in accordance with established metrics and/or maturity models

Outcome

The Department's AI use operates in accordance with established law, guidance, principles, and best-practices. Regardless of whether human interaction is required, AI models and algorithms across the Department are appropriately transparent and monitored in a coherent and consistent manner, with stakeholders clearly understanding the boundaries of safe design, integration, and operation.

Goal Four: Adoption

Accelerate the appropriate use of AI through Department-wide policy and technical capabilities.

Action

Promote successful use cases, pilots, proof-of-concepts, and knowledge sharing to accelerate the deployment and appropriate use of AI. Foster an understanding of the workforce, data, performance, and governance requirements when implementing AI solutions. Connect with federal, commercial, and academic communities to stay abreast of innovations, approaches, and risks.

Enterprise responsibilities

In alignment with the workforce, data, and governance goals, the DOJ Data Governance Board and CIO Council shall bring together the critical AI stakeholders from across the Department to:

- Maintain an understanding of the various and evolving definitions of AI

- Review any Component developed AI Strategy

- Equip the AI workforce with technical guidelines and decision aids

- Prepare an inventory of non-classified AI use cases and, as appropriate, share with other agencies and with the public

- Promote the availability of an AI testbed for Component use to rapidly prototype capabilities

- Identify and share with Components unique adversarial threats against their AI use

- Establish the Department's Community of Interest (COI) and knowledge hub to promote sharing of best practices and lessons learned across technologies, research, techniques, acquisitions, and governance

DOJ OCIO shall:

- Chair the DOJ AI Community of Interest

- Maintain the Department's AI knowledge hub

- Adapt existing Department IT investment reviews to include AI measures and reporting

- Establish and provide access to an AI testbed

DOJ Component responsibilities

Component CIOs, CDOs, and relevant stakeholders shall:

- Submit Component AI strategy, if developed, to the Department CDO and CIO for concurrence

- Build an understanding of and mitigate adversarial threats against Component AI use

- Develop safeguards and techniques to address enterprise risks

- Assess and report on AI capabilities based on DOJ policy and guidance

- Participate in the Department's COI and contribute to the AI knowledge hub, including sharing information on Component-sponsored AI research

Outcome

The Department AI capabilities use common technical standards and adhere to government-wide guidance. AI use advances DOJ's mission in a manner that fosters public trust, meets legal requirements, and protects civil liberties, privacy, and American values.