



Executive Branch Use of Artificial Intelligence Technology

Legislative Oversight and Investigations Committee

October 10, 2024

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Study Objectives And Findings

- **AI in the Public Sector:**
 - Challenges and opportunities for governments
 - Governments are responding with policy frameworks
 - Guidelines are being developed for the public sector
- **Gaps in Kentucky's AI Governance:**
 - Kentucky lacks statewide AI policy oversight
 - Kentucky lacks a statewide AI inventory
 - COT has IT policies but no AI specific policies
 - CHFS has a well designed AI policy framework
- **Need for Statewide AI Policy Framework:**
 - Understand, govern, manage
 - Governance: Procurement, implementation, and training
 - Management: Risk assessment and inventorying
- **LOIC Staff AI Inventory:**
 - 38 AI systems used by executive branch
 - AI used for a wide range of tasks
 - Agencies can audit half these systems

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Creating an AI Governance Framework



Understanding AI:

- What:
 - Statewide statutory or regulatory definitions
- Why:
 - To create a uniform understanding from which create policy



Governing AI:

- What:
 - Policies for:
 - AI Procurement
 - Implementation
 - Training
- Why:
 - To manage risk and identify opportunities



Managing AI:

- What:
 - Ongoing risk assessment and inventories of AI systems
- Why:
 - To provide oversight of AI systems that are currently in use.

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Defining AI



Difficult to Define

- Overlap with traditional systems
- Wide variety of technologies
- Wide range of applications
- Integration into other systems



Definitions Vary

- Federal level:
 - 7 definitions in 5 years
- Other states
 - State definitions vary
- KY executive branch agencies
 - Cabinets define AI differently

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Defining AI: AI Characteristics



- Machine-based
- Simulates human intelligence
- Operates autonomously
- Observes real or virtual environments
- Makes predictions and decisions affecting those environments
- Learns and improves
- Completes tasks typically requiring human intelligence

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Recommendation 2.1 And Legislative Consideration 2.A



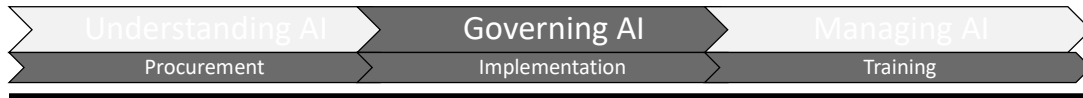
The Commonwealth Office of Technology should promulgate an administrative regulation that defines artificial intelligence systems for executive branch agencies. The definition should be consistent with the National Institute of Standards and Technology AI Risk Assessment Framework and the National Artificial Intelligence Initiative Act (15 USC sec. 9401(3)).

The General Assembly may wish to consider creating statutory definitions of artificial intelligence systems and related terminology, including these definitions in KRS 42.722, and referencing them in other statutes that are subsequently passed regarding artificial intelligence.

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Governing AI



- **Core Areas For AI Governance**

- Procurement
- Implementation
- Training

- **Kentucky Lacks Statewide AI Governance Policies**

- Need for AI specific policies
- Need to reevaluate general IT policies

- **Federal Frameworks**

- National Institute for Standards and Technology (NIST)
- Government Accountability Office (GAO)

- **CHFS AI Policy 080.101**



NIST, GAO And KY CHFS AI Policy Frameworks



	<u>Core Guidance Area</u>	<u>NIST / GAO</u>
AI Governance	Procurement	- Ensure vendor transparency and auditing - Align with ethical AI - Integrate AI specific risk assessment
	Implementation & Use	- Human oversight and testing - Disclose AI use - Follow federal standards
	Training & Guidance	- Ongoing AI ethics and risk training - Role-specific education
AI Mgmt.	Risk Assessment	- Assess bias, fairness, transparency - Ensure data security
	Ongoing Management	- Regular AI system reviews - Maintain ongoing AI system inventory



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AI Procurement



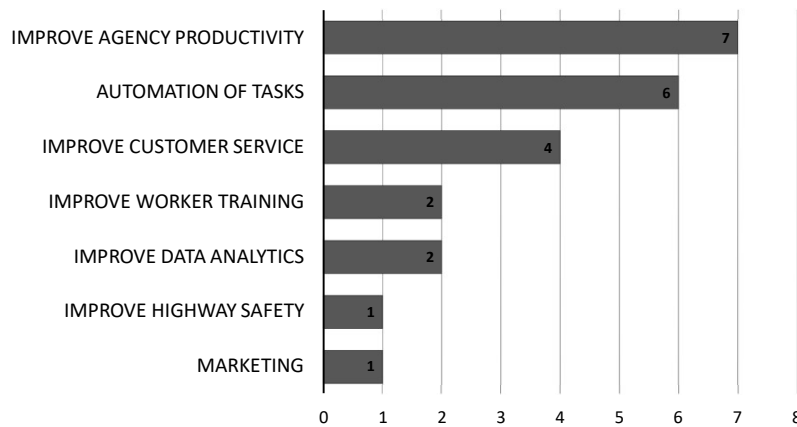
- Kentucky does not currently have statewide procurement policies specific to AI
 - State AI Procurement follows COT's general IT procurement process
- CHFS AI Policy 080.101 includes additional procurement procedures for AI systems.



AI Procurement: Cabinet Identified AI Opportunities



Cabinets identified multiple ways that AI could enhance their operations



Recommendation 3.1



The Commonwealth Office of Technology (COT) should work with executive branch agencies and cabinets to produce a report evaluating current AI procurement procedures with respect to national standards and identifying opportunities where AI systems can improve the effectiveness of executive branch operations. By October 1, 2025, COT should post the report on its website and provide it to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.



NIST, GAO And KY CHFS AI Policy Frameworks



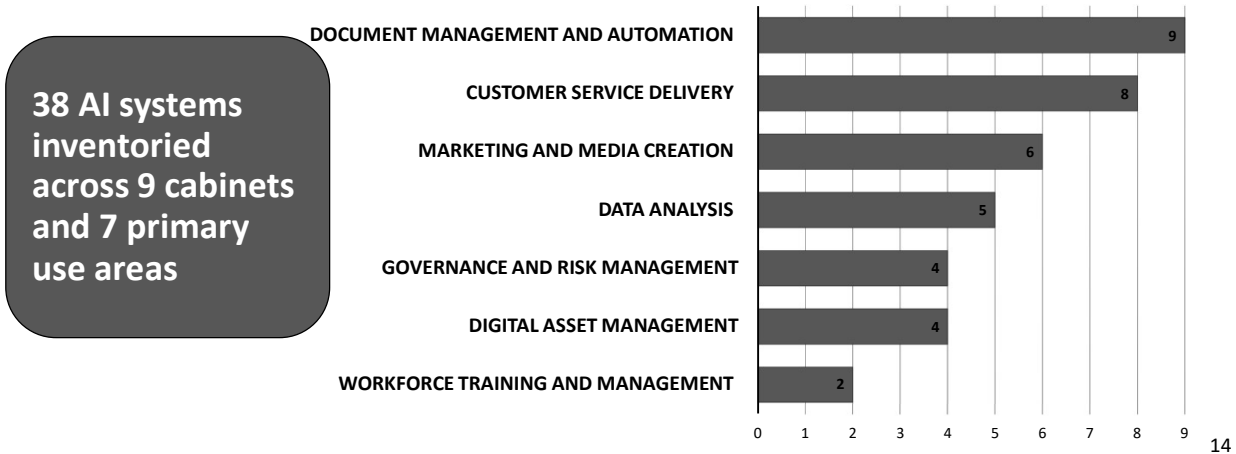
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LOIC Surveys: Kentucky Agency Use Of AI

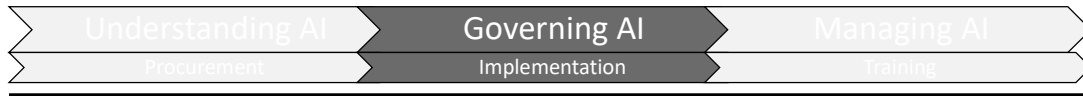


AI Use Cases Across the Executive Branch





Recommendation 3.2



The Commonwealth Office of Technology (COT) should promulgate administrative regulations that develop and establish statewide policies and procedures for the procurement, implementation, utilization, and ongoing assessment of technology systems that employ artificial intelligence that are in use by executive branch agencies. By October 1, 2025, COT should post these policies and procedures on its website and report them to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.



Legislative Consideration 3.A



The General Assembly may wish to consider revising KRS 42.726 to statutorily require that the Commonwealth Office of Technology promulgate administrative regulations that develop and establish statewide policies and procedures for the procurement, implementation, utilization, and ongoing assessment of technology systems that employ artificial intelligence that are in use by executive branch agencies.



NIST, GAO, And KY CHFS AI Policy Frameworks



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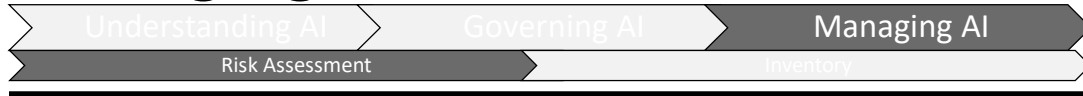
Recommendation 3.3



The Commonwealth Office of Technology (COT) should promulgate administrative regulations that develop policies and procedures for providing guidance to, and training of, executive branch agency staff regarding both the effective and responsible use of artificial intelligence systems. By October 1, 2025, COT should post these policies and procedures on its website and report them to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.



Managing AI



- **AI Risks For Government**

- Key risks: bias, security, reliability, transparency, and workforce vulnerability
- AI may amplify biases, pose privacy threats, and create transparency challenges

- **Importance Of AI Risk Assessment**

- Addresses risks like bias, data breaches, and malfunctions
- Ensures reliability, accuracy, and human oversight in AI systems

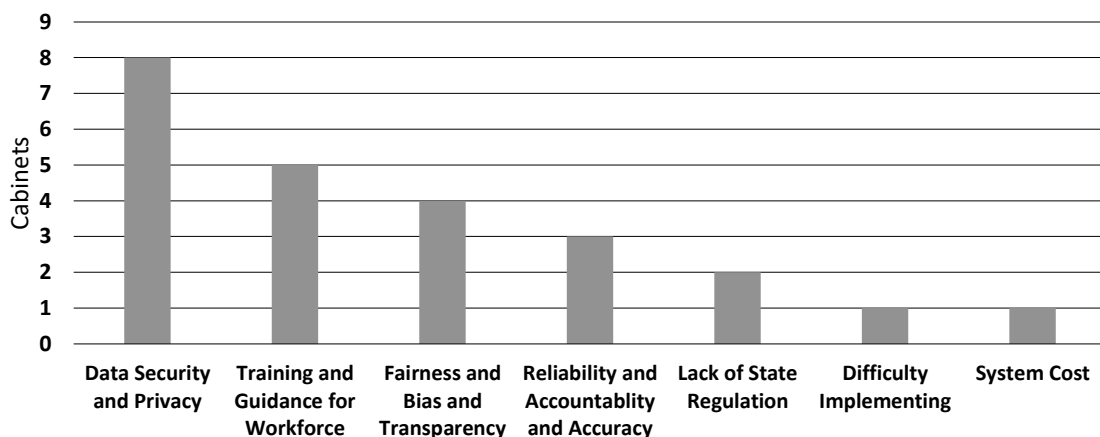
- **NIST AI Risk Management Framework**

- Guides managing AI risks in fairness, safety, and accountability
- Promotes clear responsibility and continuous workforce training

- **AI Risk In Kentucky**

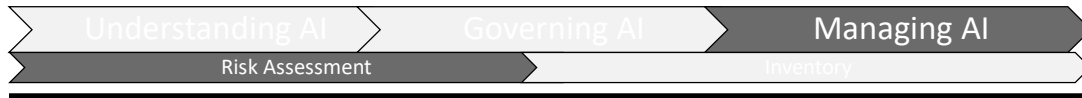
- Kentucky's executive branch agencies are concerned about AI risks related to data security, workforce vulnerabilities, and fairness and bias

AI Risk Concerns In Kentucky





Recommendation 3.4



The Commonwealth Office of Technology (COT) should develop a method for conducting a risk assessment for artificial intelligence systems in use by executive branch agencies. This methodology should be consistent with the National Institute for Science and Technology's Artificial Intelligence Risk Management Framework. By October 1, 2025, COT should post the methodology on its website and report it to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.

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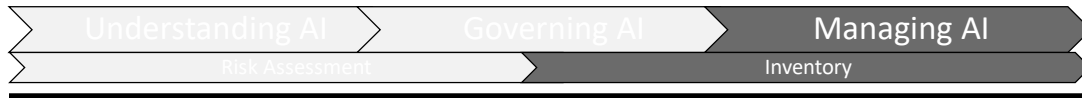
AI Inventory: Federal Guidance



- **Importance Of AI Inventories**
 - NIST and GAO emphasize the need for inventory of AI systems and use cases to enhance understanding and risk management
- **Federal And State AI Inventory Requirements**
 - Document both AI systems and use cases
- **Federal Oversight of Federal Agencies**
 - Advancing American AI Act
 - Executive Order 14110
 - Office of Management and Budget (OMB) Memorandum M-24-10
 - First AI inventory due by December 2024

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AI Inventory: Kentucky And Other States



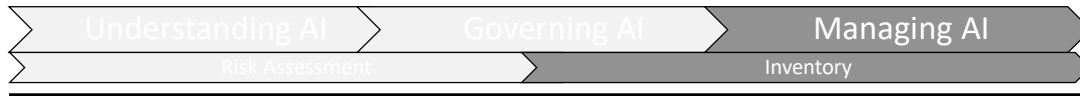
- **Current AI System Inventories**
 - Connecticut
 - Vermont
- **2024 AI System Inventory Deadlines**
 - California
 - Texas
- **2025 AI System Inventory Deadlines**
 - Indiana
 - Maryland
 - West Virginia
- **Kentucky does not currently have an AI inventory**
 - Preliminary inventory produced for this report with assistance from COT

LOIC AI Inventory Example



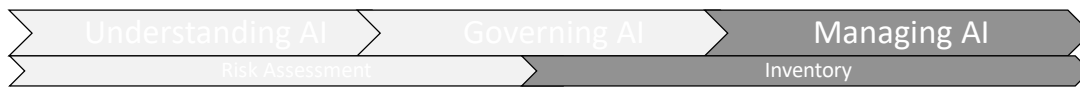
Amazon Web Services (AWS) Connect	
AI Classification	Generative AI and Machine learning
Auditable	Yes
Agency	Education and Labor Cabinet
Office	Office of Unemployment Insurance
Developer	Amazon
Agency Use	Accepts phone calls and chat messages from unemployment claimants. Provides curated answers to customer questions.
AI Application	Uses machine learning to analyze customer interactions with unemployment insurance agents; provides phone call transcripts.

Recommendation 3.5



The Commonwealth Office of Technology (COT) should conduct an annual inventory of technology systems that employ artificial intelligence. This inventory should include, among other information determined to be important by COT, the name and vendor of the application, the name of the agency that uses the application, a description of how the application is used, which artificial intelligence techniques the application uses, whether COT or the agency are able to audit the application, and a risk assessment of the applications. By October 1, 2025, and annually thereafter, COT should post this inventory on its website and provide it to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.

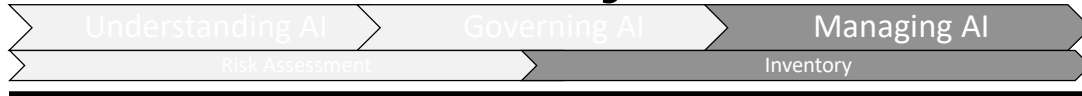
Legislative Consideration 3.B



The General Assembly may wish to consider revising KRS 42.726 to include, among the Commonwealth Office of Technology's roles, duties, and permissible activities, the requirement to conduct an annual inventory of artificial intelligence systems in use by any executive branch agency.



General IT Inventory

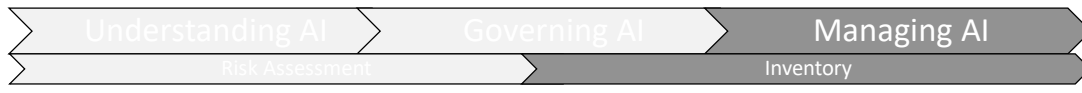


- Kentucky does not maintain a statewide inventory of IT systems
 - Such an inventory would include AI systems
 - The value of an AI system inventory applies to a general IT inventory

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Recommendation 3.6

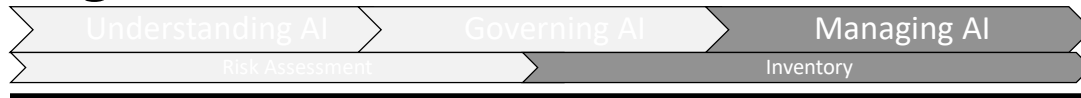


The Commonwealth Office of Technology (COT) should conduct a review to determine the feasibility and value of conducting and maintaining an annual risk assessment and inventory of all information technology applications used by executive branch agencies. By October 1, 2025, COT should present the results of this review to the Legislative Oversight and Investigations Committee; the Legislative Research Commission; and the Interim Joint Committee on Tourism, Small Business, and Information Technology.

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Legislative Consideration 3.C & 3.D



Based on the results of the report by the Commonwealth Office of Technology (COT) on the feasibility and value of conducting and maintaining an annual risk assessment and inventory of all executive branch agency technology applications, the General Assembly may wish to consider revising KRS 42.726 to include, among COT's roles, duties, and permissible activities, the requirement and authority to conduct an annual inventory of all technology systems in use by any executive branch agency.

Based on the results of the artificial intelligence system inventory conducted by the Commonwealth Office of Technology (COT) and its report on the feasibility of an inventory of all state-deployed technology systems, the General Assembly may wish to consider revising KRS 42.726 to include, among COT's roles, duties, and permissible activities, the authority to require that all executive branch agencies annually submit an inventory of the technology systems they use.

Overview



AI Impact:

- Major impact on industry, society, and the federal government
- Minor impact on Kentucky government but this already changing

AI Governance

- Kentucky has no statewide governance framework for AI
- The federal government and state governments provide a model
- CHFS also provides a model that is well aligned with federal standards

AI Management

- No statewide AI inventory
- No statewide IT inventory

This report

- Presents recommendations and matters for legislative consideration to begin the process of developing an AI governance framework.
- Provides a preliminary inventory of AI systems in use by executive branch agencies



Questions?

- We are happy to take any questions.