Agenda

▶ Background

▶ Executive Order

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▶ Framework Guiding Principles

▶ Recommended Action Plan

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Background

▶ "AI is a machine's ability to perform the cognitive functions we associate with human minds, such as perceiving, reasoning, learning, interacting with an environment, problem solving, and even exercising creativity."

McKinsey & Company

▶ Artificial Intelligence refers to a broad range of technologies with diverse applications

- o AI technology examples: machine learning, robotic process automation, expert systems

- o AI application examples: pattern recognition, forecasting/prediction, generative
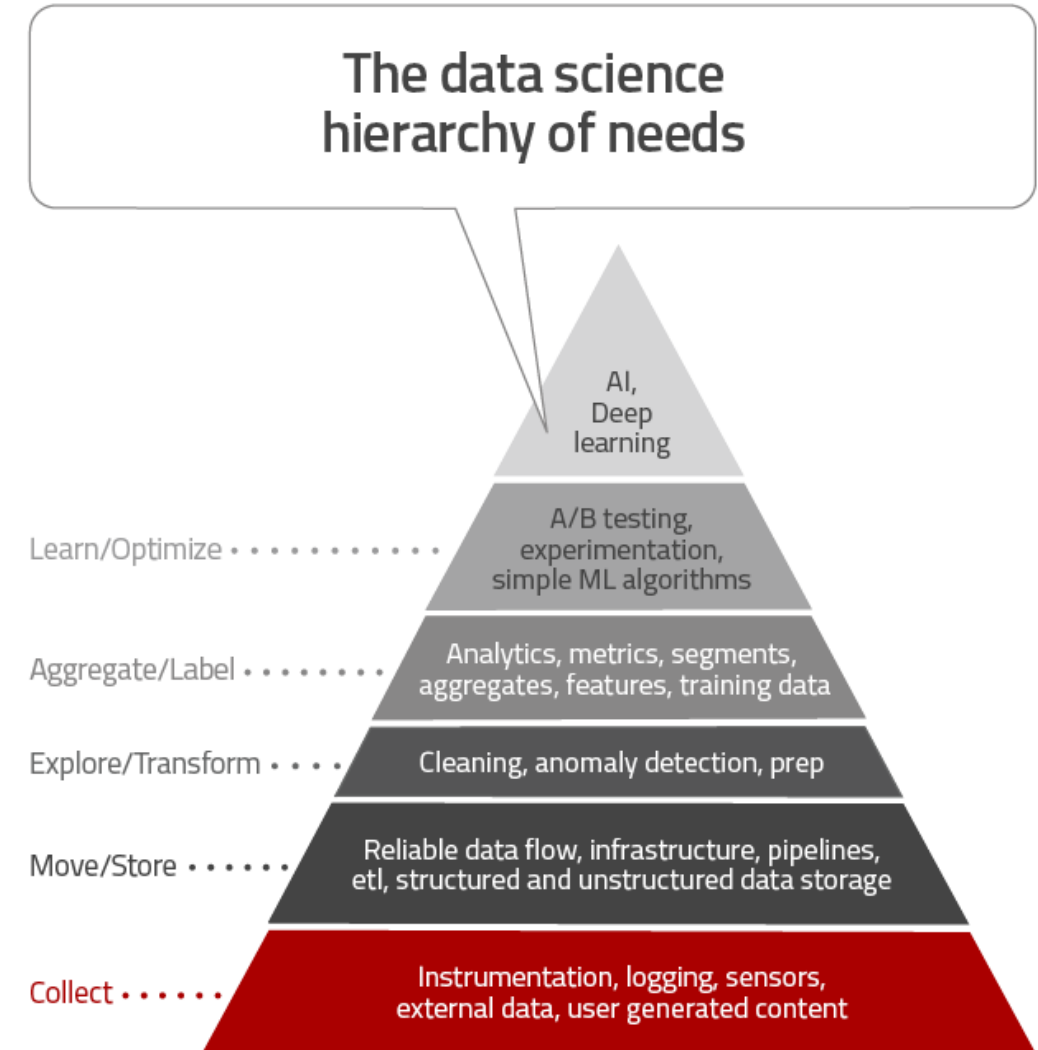
Data and Privacy are the Foundation of AI

"At the core of every AI system lies a fundamental truth: The quality and quantity of data it ingests are paramount to its effectiveness. In essence, data is the lifeblood that fuels AI algorithms, allowing them to learn, adapt and make decisions."

Forbes, "AI Needs Data More Than Data Needs AI"

The data science hierarchy of needs

Learn/Optimize · · · · · · · · · · · AI, Deep learning

A/B testing, experimentation, simple ML algorithms

Aggregate/Label · · · · · · · · Analytics, metrics, segments, aggregates, features, training data

Explore/Transform · · · · Cleaning, anomaly detection, prep

Move/Store · · · · · · Reliable data flow, infrastructure, pipelines, etl, structured and unstructured data storage

Collect · · · · · · Instrumentation, logging, sensors, external data, user generated content

AI Governance is a Critical Government Priority

"In the 2023 legislative session, at least 25 states, Puerto Rico and the District of Columbia introduced artificial intelligence bills, and 15 states and Puerto Rico adopted resolutions or enacted legislation."

National Conference on State Legislatures
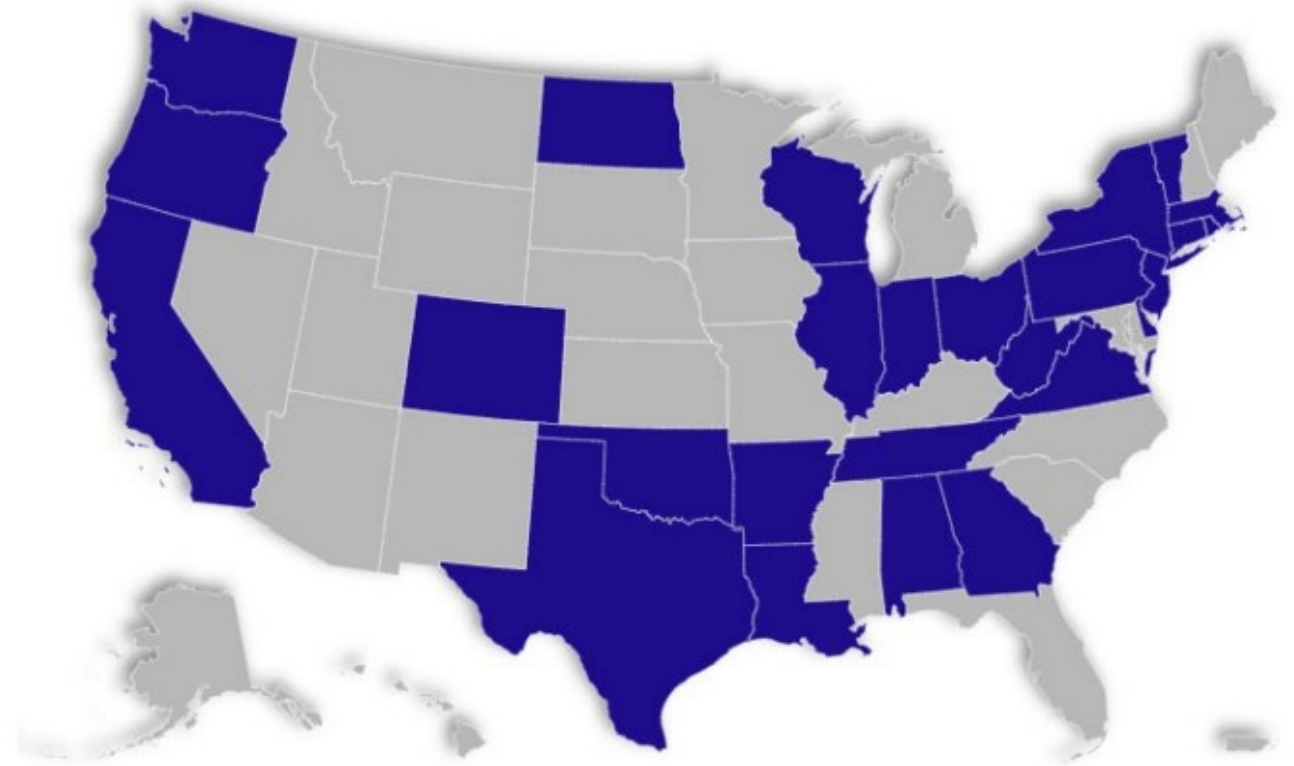
States who have created an AI Task Force or Council

Risks and Opportunities of AI

▶ AI can pose a range of risks to:

  o Individuals

  o Groups

  o Society

  o Companies/Institutions

  o Ecosystems

▶ AI can be utilized as an effective tool to aid humans in accomplishing tasks more efficiently and in providing decision support.

▶ Thoughtful governance is required to use AI effectively and ethically.

Executive Order

▶ The Council shall recommend an action plan to guide awareness, education, and usage of artificial intelligence in state government that aligns with the State's policies, goals, and values and supports public services to deliver customer service more efficiently and effectively.

▶ The recommended action plan shall include concrete executive actions, policies, and investments needed to leverage artificial intelligence while honoring transparency, privacy, and diversity, equity, and inclusion.

▶ Council must have a commitment to data ethics and data equity.

Council Membership

▶ Terrence Woods, State Chief Information Officer, Council Chair

▶ Kathryn Darnall Helms, State Chief Data Officer

▶ Melinda Gross, Department of Administrative Services Cultural Change Officer

▶ Daniel Bonham, State Senator

▶ Daniel Nguyen, State Representative

▶ Jesse Hyatt, Executive Branch agency representative

▶ Vacant, Representative from Governor's Racial Justice Council

Council Membership

Eight additional members, at the discretion of the Governor, may include community organizations with demonstrated expertise in data justice; artificial intelligence experts from Oregon universities; and representatives from local governments.

▶ Dr. Andres Lopez

▶ Catie Theisen

▶ Hector Dominguez Aguirre

▶ Janice Lee

▶ Justus Eaglesmith

▶ Ellen Flint

▶ K S Venkatraman

▶ Saby Waraich

Council Vision Statement

Create an informed and empowered workforce where state employees are well-equipped and trained with the knowledge and understanding of AI to make informed decisions. We envision a future where AI is governed by transparent, well-defined policies that ensure its ethical use, promote diversity, equity, and inclusion, and safeguard personal and sensitive information. Oregon aims to foster a responsible AI ecosystem that enhances government efficiency, accountability, and public trust, while upholding the highest standards of privacy and ethical integrity.

Council Activities

▶ Executive Order signed November 28, 2023

▶ Council convened and charter confirmed

▶ State benchmarking methodology overview

▶ National Institute of Standards and Technology definitions

▶ Draft Framework

▶ Public comment

▶ Subcommittees

  ○ Ethics

  ○ Equity

  ○ Security

▶ Recommended Action Plan

Framework Guiding Principles

1. Accountability
2. Equity and Representation
3. Explainability and Trust
4. Governance
5. Human Oversight in AI Governance
6. Privacy and Confidentiality

7. Risk and Risk Management
8. Safety and Impact
9. Security and Securing
10. Stakeholder Experience and Equity
11. Transparency and Trustworthiness
12. Workforce Preparedness and Understanding

Sample of Recommendations

2.10   Establish a responsible body/authority to oversee, govern, ensure adherence to principles and to craft appropriate governance structures to support.

3.3   Develop and make publicly available a statewide AI use case inventory, with an expectation that further documentation on deployment will be provided.

5.1   Ensure human-in-the-loop (HITL) oversight in the adoption and deployment of AI and decision-making systems.

Sample of Recommendations

6.1   Policies, guidelines, and expectations for AI implementation should promote data minimization and other privacy protection strategies in AI system design to limit the amount of data collected and processed, reducing potential privacy risks.

10.1   Develop a checklist of must-haves in evaluating and adopting any system. Items should include proof of ethical sourcing of data, evaluation of potential discrimination bias of the data, and documentation on reasoning of sampling.

12.2   Make available state trainings, materials, and resources to the general public.

Recommended Action Plan Five Executive Actions

1. Establish cross-functional AI governance framework

2. Acknowledge and address privacy concerns

3. Enhance security framework

4. Develop reference architecture

5. Address workforce needs

Recommended Action Plan Layout and Premises

▶ For each of the recommended executive actions, an appendix further elaborates:

- High level tasks

  - Recommended accountable role

  - Proposed estimated timeframe

- Resources and investments needed to initiate each recommendation

▶ Identified positions are dependent on position authority and funding.

▶ Further elaboration and refinement are expected with the development of an implementation plan for each recommendation.

Recommended Action Plan High Level Roadmap

Initial activities ───────────────────────────→ **Follow on activities**

Establish cross-functional AI governance framework	Execute updated Executive Order	Charter and appoint AI governance body	Develop core AI governance framework policies	Build partnerships
	Appoint AI leadership role	Establish decision making and roles	Establish feedback loops	Develop metrics and reporting
Acknowledge and address privacy concerns	Appoint privacy leadership role	Develop core AI privacy policies	Identify AI privacy impact assessment standards	Integrate data documentation requirements
	Develop templates for public disclosures	Identify AI documentation standards	Update agency data officer roles	Determine additional needs for continuing privacy efforts
Enhance security framework	Establish deactivation protocols	Scope and estimate data loss prevention capabilities	Implement NIST AI Risk Management Framework	Update agency incident response plans
	Review and update security policies	Update vendor requirements	Update statewide incident response plan	
Develop reference architecture	Publish AI use case inventory	Pilot AI risk management framework	Recommend AI testing framework	Develop power management policies
	Define initial AI reference architecture	Establish cross-agency advisory group	Establish minimum performance standards	
Address workforce needs	Evaluate workforce impacts	Research existing training	Develop state procurement training for AI contracts	Create shared resource webpage
	Engage Workforce and Talent Development Board	Deliver human in the loop training	Develop employee AI training	Partner with universities for innovation labs

Establish cross-functional AI governance framework

✓ Executive updated Executive Order

👤 Appoint AI leadership role

⚖ Charter and appoint AI governance body

👥 Establish decision making and roles

🧠 Develop core AI governance framework policies

🤝 Establish feedback loops

📊 Build partnerships

💬 Develop metrics and reporting

Address and acknowledge privacy concerns

Appoint privacy leadership role

Develop templates for public disclosures

Develop core AI privacy policies

Identify AI documentation standards

Identify AI privacy impact assessment standards

Update agency data officer roles

Integrate data documentation requirements

Determine additional needs for continuing privacy efforts

▶ Includes actions related to continuing agency data governance efforts

▶ Consideration should be given to data of native and sovereign nations and the practice of data sovereignty

Enhance security framework

Establish deactivation protocols

Review and update security policies

Scope and estimate data loss prevention capabilities

Update vendor requirements

Implement NIST* AI Risk Management Framework

Update Statewide Incident Response Plan

Update agency incident response plans

*National Institute of Standards and Technology

Develop reference architecture

Publish AI use case inventory

Define initial AI reference architecture

Pilot AI risk management framework

Establish cross-agency advisory group

Recommend AI testing framework

Establish minimum performance standards

Develop power management policies

Address workforce needs

Evaluate workforce impacts

Engage Workforce and Talent Development Board

Research existing training

Deliver human in the loop training

Develop state procurement training for AI contracts

Development employee AI training

Create shared resource webpage

Partner with universities for innovation labs

State CIO Interim Guidance

▶ Issued June 7, 2024, to agency IT leadership.

▶ Creates opportunities for shared learning and grounding our work with relevant use cases.

▶ Requires Executive Branch organizations to consult with their Assistant State CIO and submit an IT investment form in advance of any AI- and GenAI-related IT investments, proofs of concept and pilots.

Next Steps

▶ Updated guidance, policy

▶ Minimum training for Executive Branch workforce

▶ Publish AI use case inventory

Thank you

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