

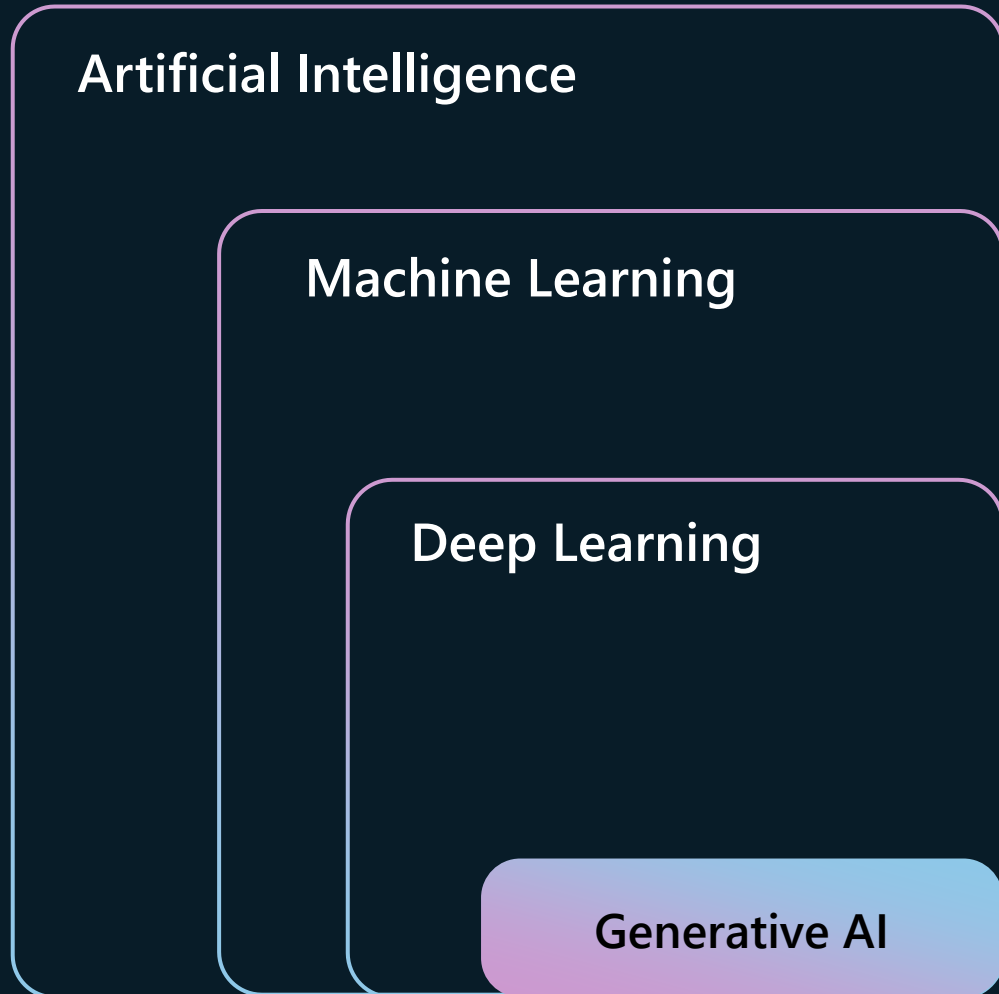
AI in Action

Capturing the AI opportunity

Information Technology Committee
North Dakota House of Representatives
Bismarck, North Dakota
Wednesday, March 27th, 2024



A brief history of AI



1950s

Artificial Intelligence

the field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1959

Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2017

Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions.

2021

Generative AI

create new written, visual, and auditory content given prompts or existing data.

Generative AI offers a huge improvement over traditional AI models



Content generation

Creating a human-like output, including textual, visual, or multimedia content, based on input data or natural language prompts



Summarization

Extracting key themes and insights from a longer piece of text, including answering natural language queries



Semantic search

Going beyond traditional keyword matching by understanding the meaning behind a query and retrieving relevant search results that are semantically related to the user's intent



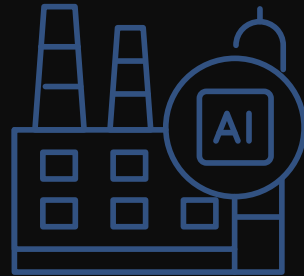
Code generation

Generating code based on a prompt, translating code from one language to another, or reviewing and improving existing code

The world today



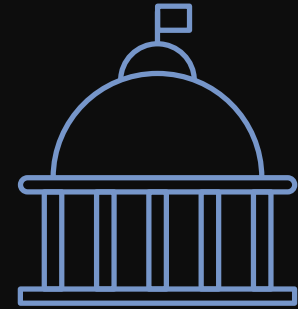
AI **innovation** is occurring at a rapid pace



Companies are accelerating **adoption** of AI



Societal expectations are **evolving**



Governments are **regulating** AI in response

Powerful trends are driving interest in generative AI



Higher constituent service demands

85%

expect government digital services to match the quality of commercial organizations¹

<50%

feel U.S. government agencies or organizations are using digital technology effectively for service delivery²



Staffing and resource pressures

928,000

fewer state and local government employees in 2023 compared with 2019³

52%

of public workers are aged 45 to 64 compared to 42.4 percent in the private sector⁴



Constraints of technical debt

96%

of SLG IT decision makers feel critical infrastructures are at risk due to legacy applications or systems⁵

1. Accenture: Joe Dickie, Feb. 16, 2017

2. Thomson Reuters: Allyson Brunette, Mar. 17, 2023

3. Rockefeller Institute of Government: Liz Farmer, Jan. 20, 2022

4. Workforce.com: Carol Brzozowski, Jan. 14, 2019

5. Gallup: Jeffrey Jones, Oct. 13, 2023



Don't ask what computers can do, ask what they should do.

Brad Smith, President and Vice-Chair, Microsoft

Responsible AI Principles



Fairness



Reliability
& Safety



Privacy &
Security



Inclusiveness

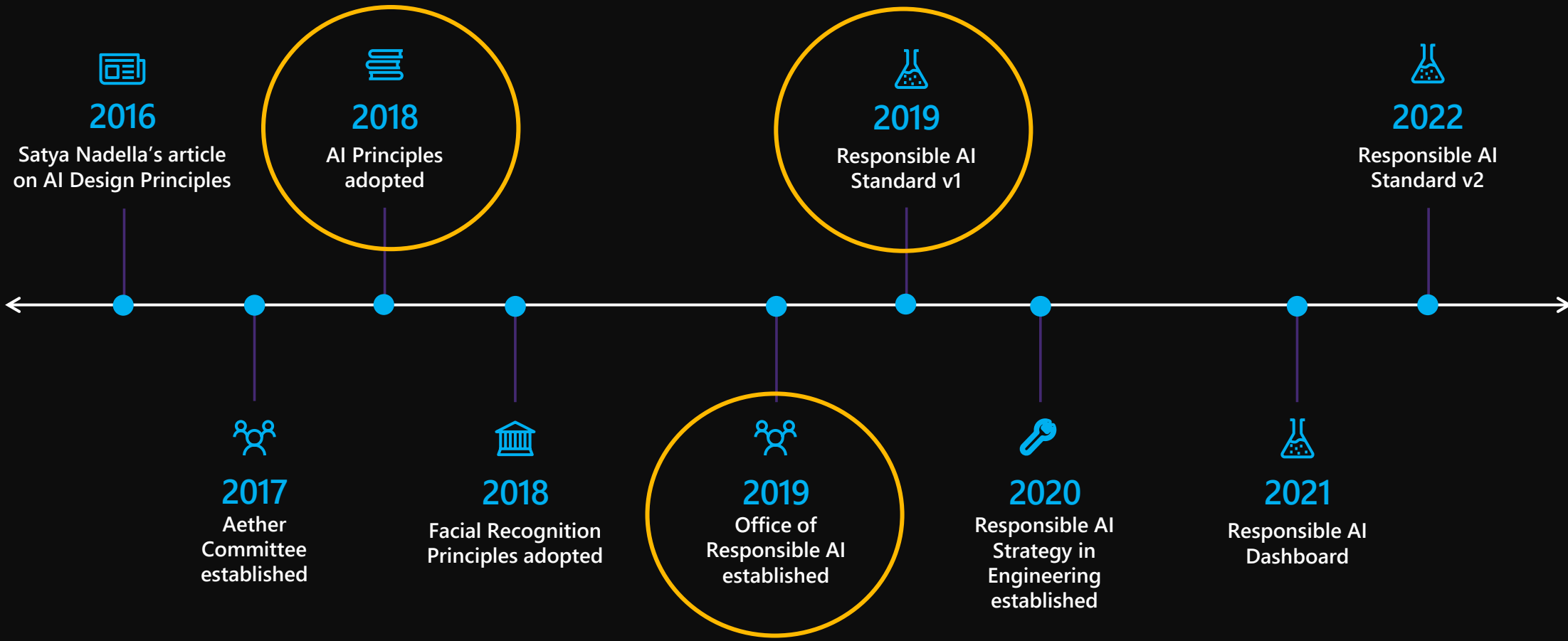


Transparency



Accountability

Microsoft's Responsible AI Journey



Public Policy

Supporting responsible AI regulation



There is **growing regulatory attention** on AI



A **diverse range of perspectives** are needed to help shape regulatory conversations



Microsoft is working to help share our **responsible AI experience**



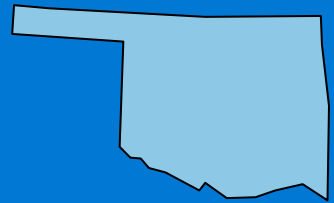
Frameworks should be **risk based** and **outcomes focused**

AI policy is fostering innovation across the country

Governments are exploring AI technology to improve public services while being inclusive of who sees the beneficial impact

Oklahoma – Executive Order 2023-24

Creates a Governor’s Task Force on Emerging Technologies to examine how AI can be deployed across state government agencies



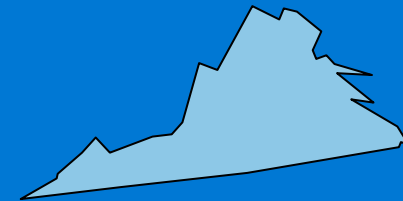
Washington D.C. – Mayor’s Order 2024-028

Outlines the actions that the city is taking to harness the power of artificial intelligence in government services and how the community can benefit from this technology



Virginia – Executive Directive No. 5

Ensures the responsible, ethical, and transparent use of artificial intelligence by state government to protect the rights of constituents and “deliver a best-in-class state government”



California – Executive Order N-12-23

Mandates the development of a Department of Technology report on potential beneficial AI use cases for deployment by the state



The promise of AI



Ag-tech
innovation



Transportation,
infrastructure,
supply chain
management



Future of health
care and life
sciences



Delivering
services to
citizens



Climate change
adaptation and
mitigation

Early Warnings Systems for Natural Disasters

The power of AI, satellite imagery, predictive modeling, and the Microsoft device ecosystem can contribute to assisting vulnerable communities before and after disasters strikes



**Population
Patterns**

Understand where
people are and going



**Post-Disaster Building
Damage Assessment**

Identify damaged
buildings to prioritize
resources



**Notifications to
Devices**

Notifications to
Microsoft devices



Internet Connectivity

Understand internet
access, availability,
and speed

Microsoft AI for Good Lab: the Lahaina Wildfire

Our hearts go out to the residents of Maui in the wake of this week's devastating storm and wildfires. Microsoft is working with the American Red Cross and Planet on a preliminary assessment of the damage in Lahaina in order to help first responders and relief organizations in their critical work.

We have run our damage assessment AI models on the satellite images we received from Planet and have maps of the affected buildings. If your organization would benefit from the underlying data in this report—please contact me. We are committed to sharing this information in support of the response efforts.

There are a total of 2,810 buildings in the study area. Out of these, we estimate that at least 1722 buildings were damaged.

1,088 are between 0 and 20% damaged.

110 are between 20-40% damaged.

169 are between 40-60% damaged.

238 are between 60-80% damaged.

1,205 are between 80-100% damaged

Please note: Our AI model determines if a building has been affected based on satellite imagery. While we strive for accuracy, satellite data has its limitations. The provided maps should be used as a preliminary reference and verified on the ground for a comprehensive assessment.



“New York City is redefining the way small businesses get answers”

NYC MyCity Official website of the City of New York **Business** [Select Language](#)

MyCity Chatbot ^{Beta}

The MyCity Chatbot uses information published by the NYC Department of Small Business Services to respond to you. Please verify the MyCity Chatbot's answers with the links it provides you, and do not rely on its responses as a substitute for professional advice. Please do not provide sensitive information to the MyCity Chatbot.

Examples

- "How do I avoid noise violations and complaints for my construction company?" →
- "I'd like to start a new cafe and bakery in Manhattan." →
- "How do I apply for the MWBE program?" →

Capabilities

- Trained to provide you official NYC Business information.
- Will not use the contents of your chat history to learn new information.
- Only responds to English questions for now.

Limitations

- May occasionally produce incorrect, harmful or biased content.
- Limited knowledge of the world beyond NYC Business topics.
- Trained to decline inappropriate requests.

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Ask a question →

NYC Government Preview. Knowledge is based on information published online in September 2023.

Thank you!

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