

Artificial Intelligence

Machine Learning

Deep Learning

Generative AI



Artificial Intelligence

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



Machine Learning

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



Deep Learning

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



Generative AI

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

Generative AI offers new options compared to 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

Microsoft's AI principles



Fairness



Reliability
& Safety



Privacy &
Security



Inclusiveness



Transparency



Accountability

Accessible AI is Responsible AI



- Be **Accessible**: Develop inclusively designed, accessible next gen AI technology



- Gather and Utilize **Inclusive** Disability Data: Incorporate disability datasets in large language models.



- Foster **Innovation** Culture: Encourage paradigm shifting innovations of accessible AI.

A five-point blueprint for governing AI

1

Implement and build upon new government-led AI safety frameworks

2

Require safety brakes for AI systems that control critical infrastructure

3

Develop a broader legal and regulatory framework based on the technology architecture for AI

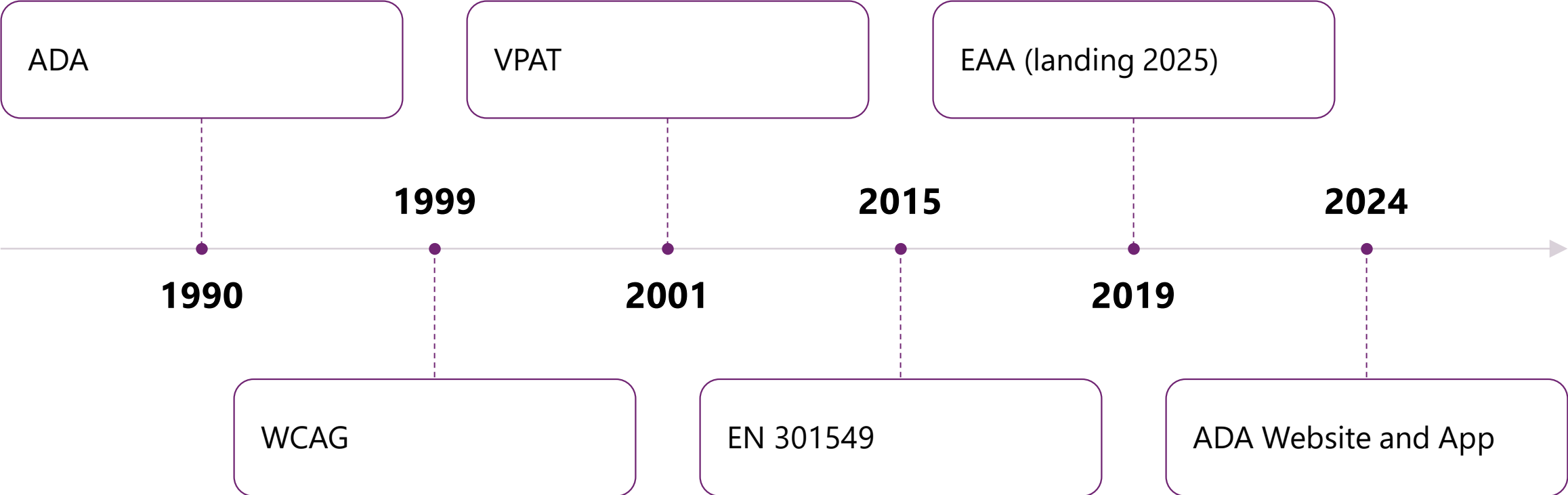
4

Promote transparency and ensure academic and public access to AI

5

Pursue new public-private partnerships to use AI as an effective tool to address the inevitable societal challenges that come with new technology

Regulatory Picture



President Biden's AI Executive Order



"AI is a tool that can help us solve some of the biggest challenges of our time, and I'm proud to be taking steps to promote the responsible and ethical development of this technology."

- President Biden

Order encourages responsible adoption of AI by federal agencies –

- Requires development of AI safety and security standards
- Encourages government adoption
- Supports workers and labor market analysis on impact of AI
- Promotes innovation, competition and stakeholder input