



Leading While Learning in an Age of AI

MSDE State Board of Education

● Key Question

What are the conditions to help Maryland realize the benefits of AI in education and mitigate the risks?

● Access the Slides



bit.ly/mdstateboardai

About TeachAI

TeachAI is an initiative that guides education leaders and policymakers in transforming education through teaching with AI and teaching about AI.



in coordination with the World Economic Forum

Advisory Committee

AASA, The School Superintendents Association

AAAI

AESA, The American Educational Studies Association

Allen Institute for AI

Accenture

ACT

Adobe

AI4ALL

AI4K12

aiEDU

AIforEducation

Amazon

American Federation of Teachers

American Indian Science and Engineering Society

Arab Bureau of Education for Gulf States

ASCD

Associação Nacional de Professores de Informática

Atlassian

Black in AI

Canada Learning Code

The Center for Black Educator Development

Center for Security and Emerging Technology

Central Square Foundation

Chiefs for Change

Cisco

College Board

Common Sense Media

COSSBA

CoSN– Consortium for School Networking

Council of Chief State School Officers

Council of the Great City Schools

Cyber Innovation Center

Data Science 4 Everyone

Dell Technologies

Digital Promise

Ed3 DAO

Education Above All

Education Commission of the States

Education Leaders of Color (EdLoC)

EdTech East Africa

Encode Justice

European EdTech Alliance

Everyday AI

ExcelinEd

EY

Fab, Inc.

Fundación Kodea

German Informatics Society

Getting Smart

GitHub Education

Google

Grok Academy

HMH

IndigiGenius

Infosys Foundation USA

InnovateEDU

Institute for Advancing Computing Education

Inter-American Development Bank

Junyi Academy

Meta

Micro:bit Educational Foundation

Micron Technology

Microsoft

National Association of State Boards of Education

National Center on Education and the Economy (NCEE)

National Council of Teachers of Mathematics

National Council of Teachers of English (NCTE)

NCWIT

National Education Association

National School Boards Association

National Science Teaching Association

One Generation – Indigitize

OpenAI

Pearson

Policy Analysis for California Education (PACE)

Pratham International

RobinCode

SETDA

Shule Direct

SIIA

Sociedad Científica Informática de España

Sociedade Brasileira de Computação

Southern Regional Education Board

Southeast Asian Ministers of Education Organization

STEAMLabs Africa

Teach for All

Teach For America

Texas Advanced Computing Center

UNICEF

Wharton Interactive

WIDA

WISE

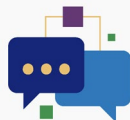
World Bank

TeachAI Roadmap

AI Guidance for
Schools Toolkit



Education x Industry
Learning Series



Foundational Policy
Ideas for AI in
Education



Guidance on the
Future of CS Ed
in an Age of AI



AI Literacy
Framework



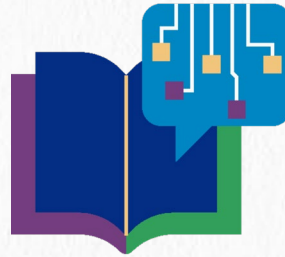
What is AI?

● TeachAI : Teaching With and About AI



Teaching With AI

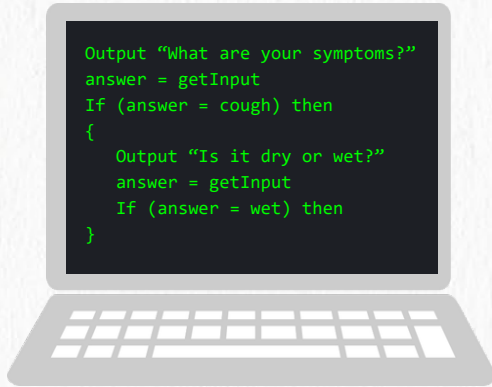
Using AI as a tool for teacher support, student learning, or school management and operations.



Teaching About AI

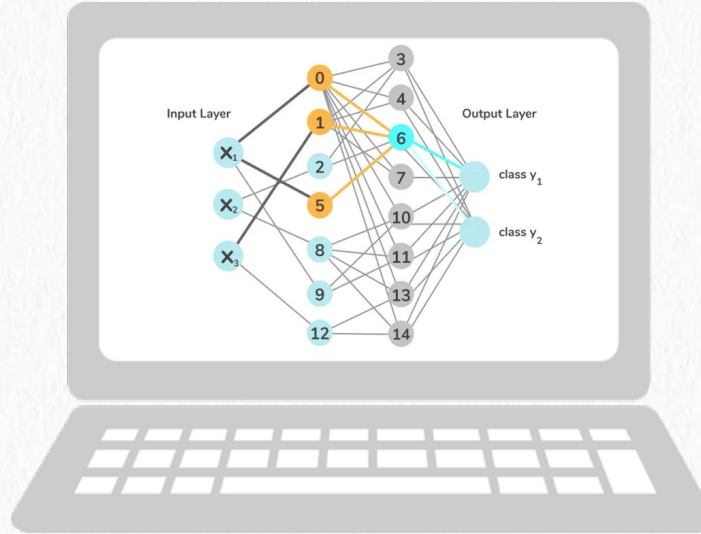
Understanding how AI works, including studying foundational concepts from computer science, data science, social studies, science, and mathematics.

What is AI?

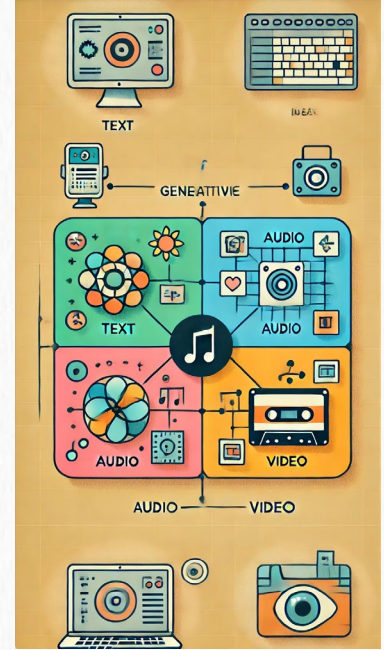


Classical AI

Lots of Data

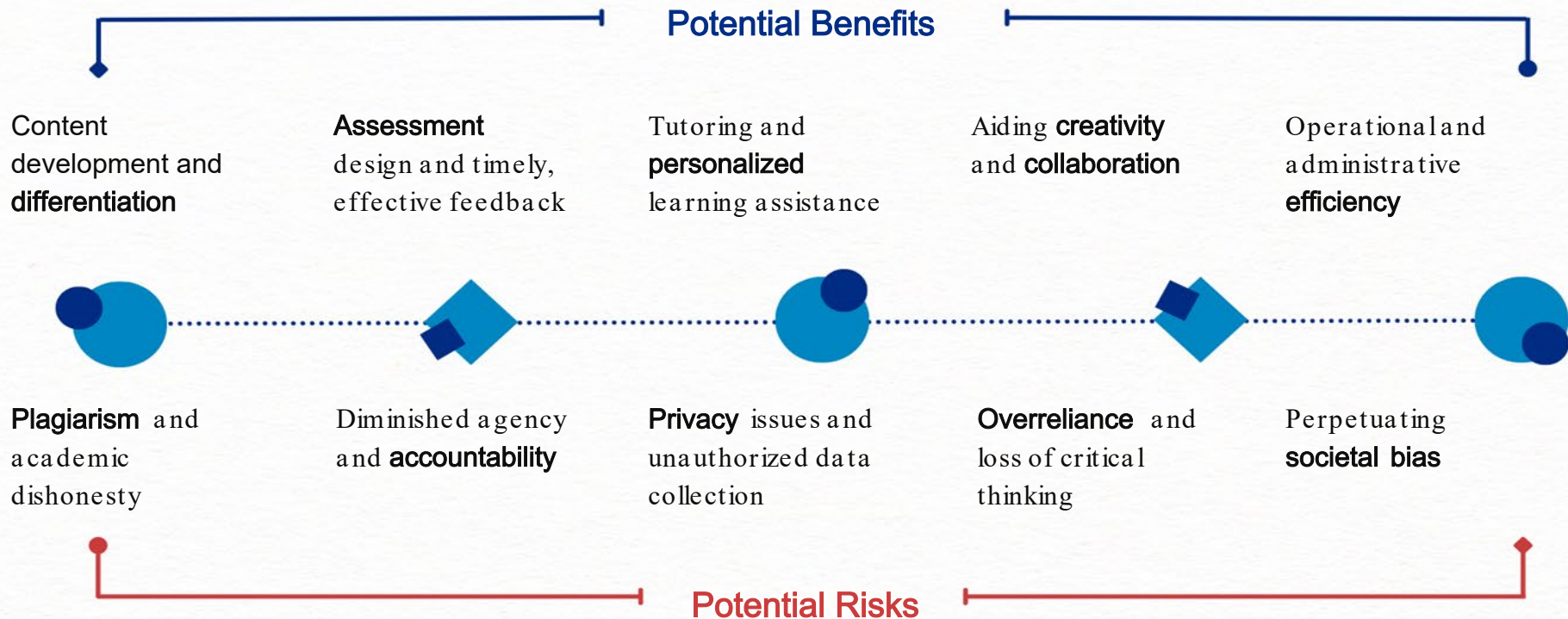


Machine Learning



Generative AI

Potential Benefits & Risks of Using AI in Education

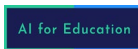


Policies

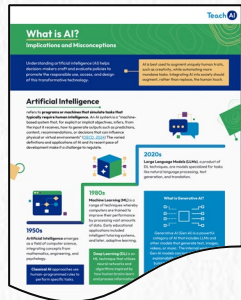
Lead Partners



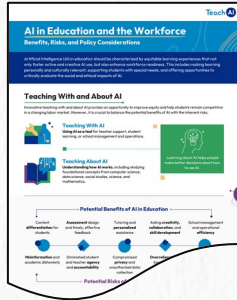
Partners



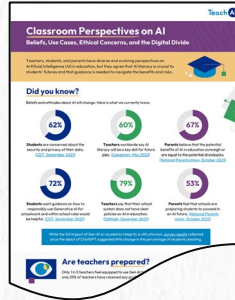
Foundational Policy Ideas for AI in Education



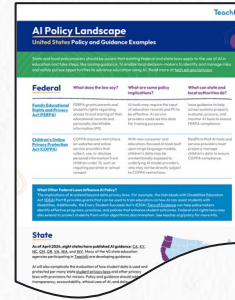
What is AI?



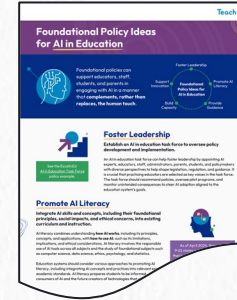
AI in Education
and the
Workforce



Classroom
Perspectives on
AI



Policy Landscape
(US & Global)



Foundational
Policy Ideas

Understand AI's Educational Implications


Act on Policy Implications


Foundational Policy Ideas for AI in Education

Teach AI

Foundational Policy Ideas for AI in Education

Foundational policies can support educators, staff, students, and parents in engaging with AI in a manner that complements, rather than replaces, the human touch.






Foster Leadership

Establish an AI in education task force to oversee policy development and implementation.

An AI in education task force can help foster leadership by appointing AI experts, educators, staff, administrators, parents, students, and policymakers with diverse perspectives to help shape legislation, regulation, and guidance. It is crucial that practicing educators are selected as key voices in the task force. The task force should recommend policies, oversee pilot programs, and monitor unintended consequences to steer AI adoption aligned to the education system's goals.

See the ExcelEd AI in Education Task Force policy example.



Promote AI Literacy

Integrate AI skills and concepts, including their foundational principles, social impacts, and ethical concerns, into existing curriculum and instruction.

AI literacy combines understanding how AI works, including its principles, concepts, and applications, with how to use AI, such as its limitations, implications, and ethical considerations. AI literacy involves the responsible use of AI tools across all subjects and the study of foundational subjects such as computer science, data science, ethics, psychology, and statistics.

Education systems should consider various approaches to promoting AI literacy, including integrating AI concepts and practices into relevant existing academic standards. AI literacy prepares students to be informed consumers of AI and the future creators of technologies that utilize AI.

As of April 2024, there are 9 US states and over 20 countries that have made computer science a graduation requirement, a foundational aspect of AI literacy. See 7 key Policy Ideas to Make Computer Science Foundational.



Foster Leadership



Promote AI Literacy



Provide Guidance



Build Capacity



Support Innovation

● Foster Leadership



Establish an AI in education task force to oversee policy development and implementation.

The task force should:

- Recommend policies
- Oversee pilot programs
- Monitor unintended consequences

States: **CA**, FL, MS, VA

● Promote AI Literacy

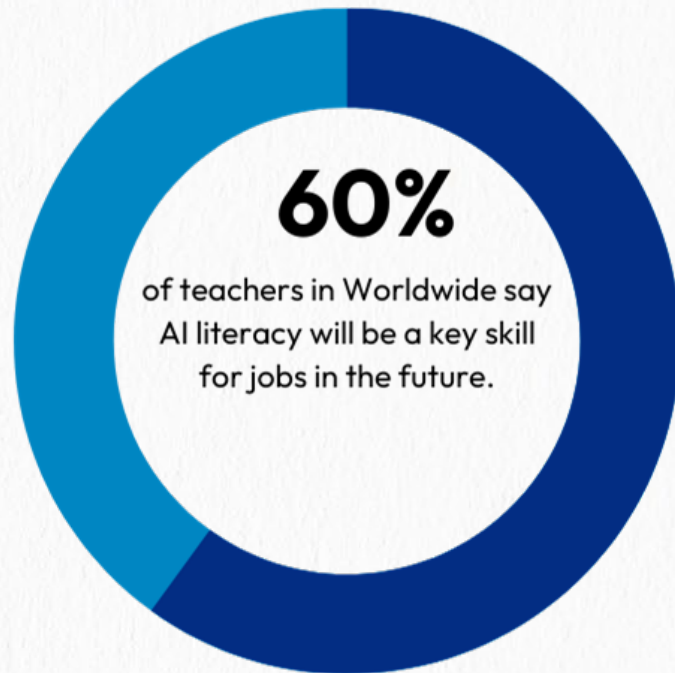
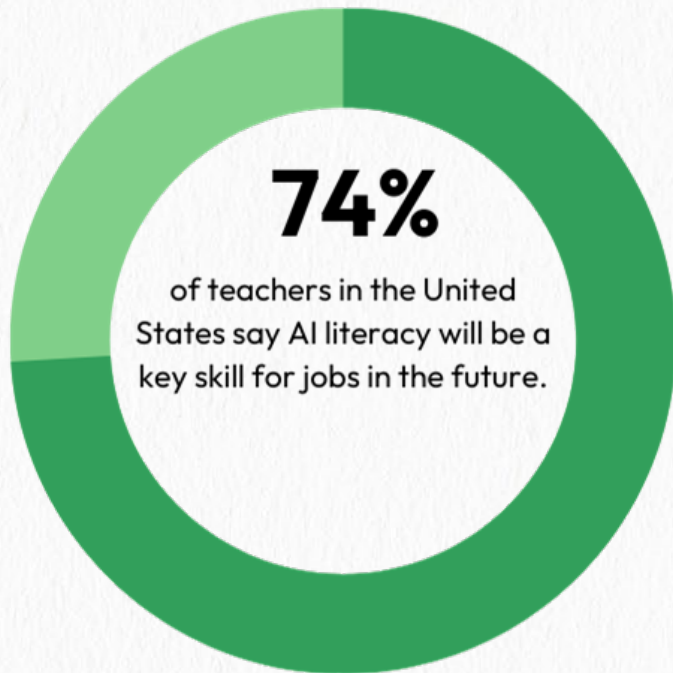


Integrate AI skills and concepts, including their foundational principles, social impacts, and ethical concerns, into existing curriculum and instruction.

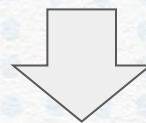
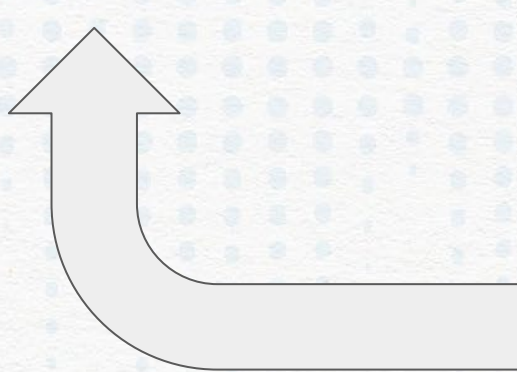
AI Literacy = How to Use AI + How AI Works

States: **KY**, **MD**, **NY**, **OK**

Teachers Believe AI Literacy is an Important Skill

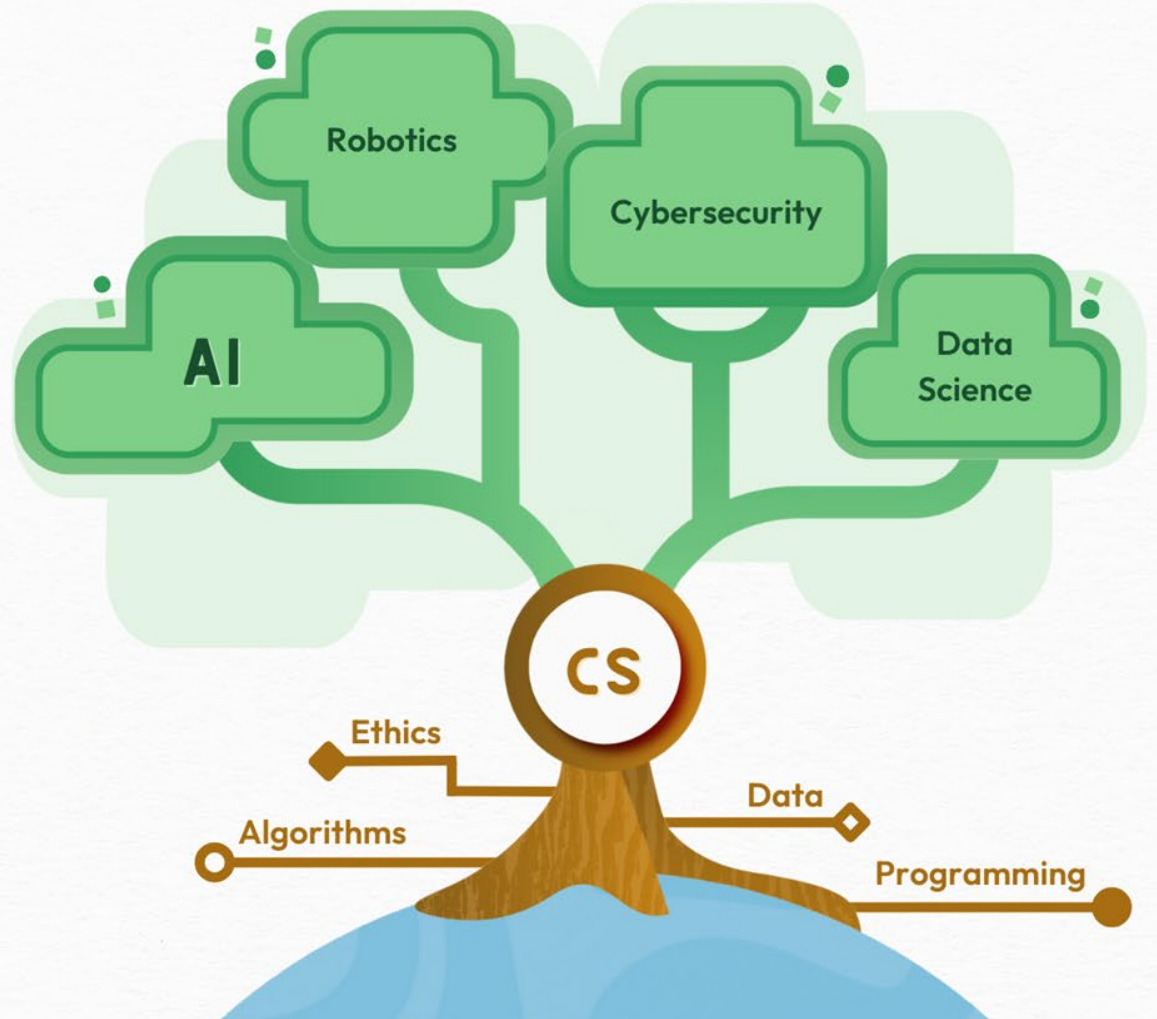


How to Use AI + How AI Works



Algorithms
Ethics
Data
Programming

In an age of AI,
CS isn't just
mandatory, it is
foundational



● Build Capacity



Provide funding and programs to support educator and staff professional development on AI.

Professional development should cover:

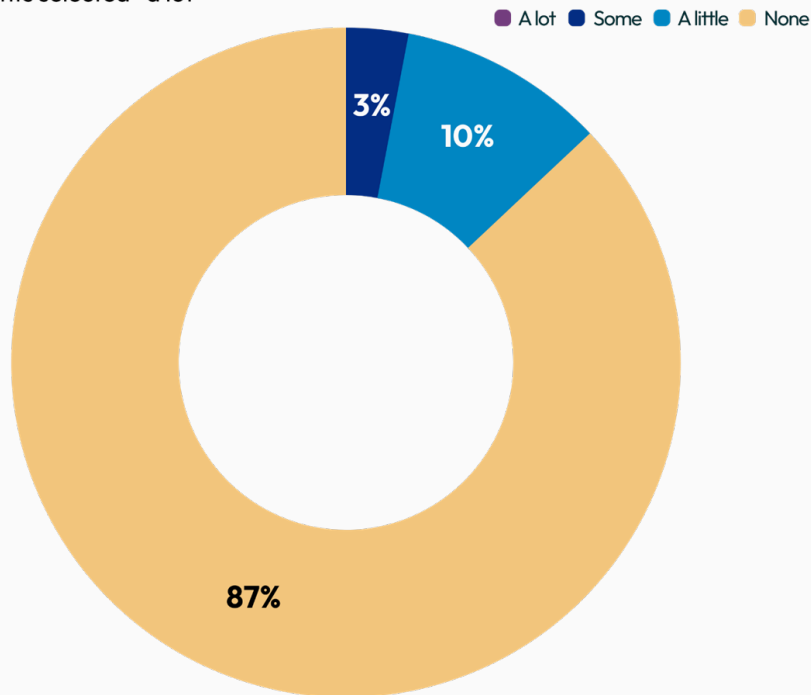
- How AI works, including limitations and ethical considerations
- How to use AI to complement teaching practices

States: KY, NY, **OK**

Educators Lack Professional Development on AI

How much professional development have you received about incorporating AI into your work in K - 12 education?

0% of respondents selected "a lot"



87% have never received any PD about AI.

● Support Innovation



Promote the research and development of safe and effective AI in education practices, curricula, and tools.

Funding research can help educators and staff make informed, research - based decisions.

State: IN, NJ

● Provide Guidance



Equip schools with guidance on the safe and responsible use of AI.

Early guidance should:

- Clarify benefits and risks
- Reaffirm adherence to existing policies
- Advance academic integrity
- Maintain human decision-making

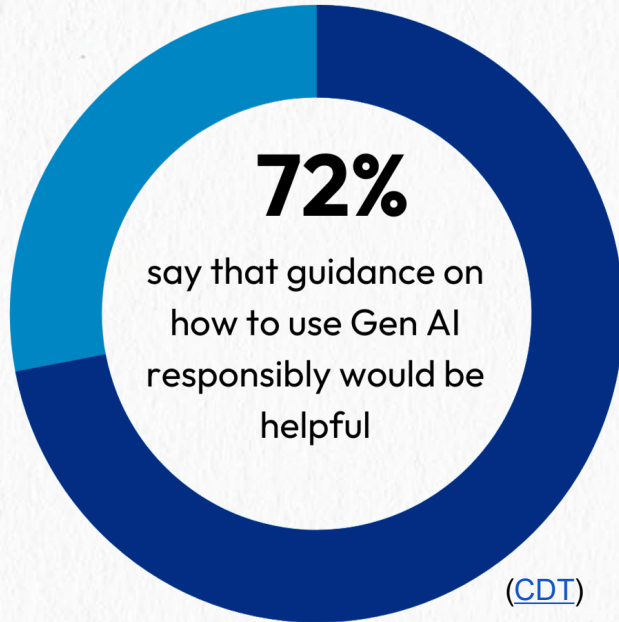
States: MD, TN

Guidance

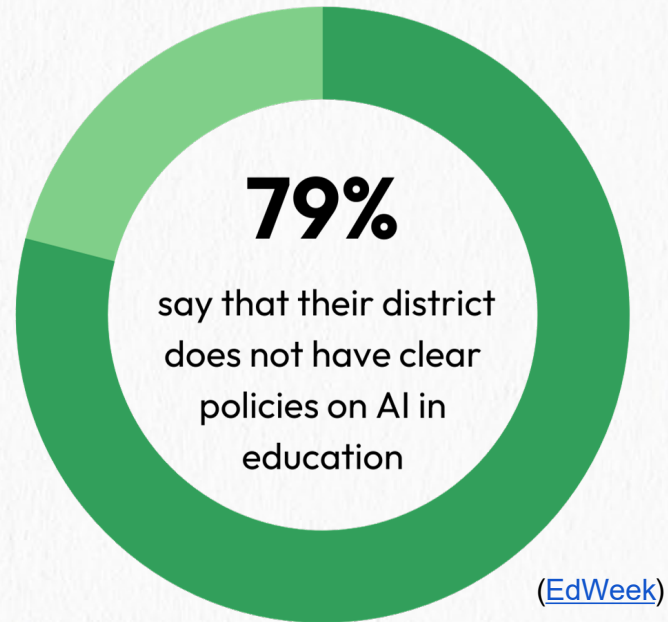


The Need for AI Guidance for Schools

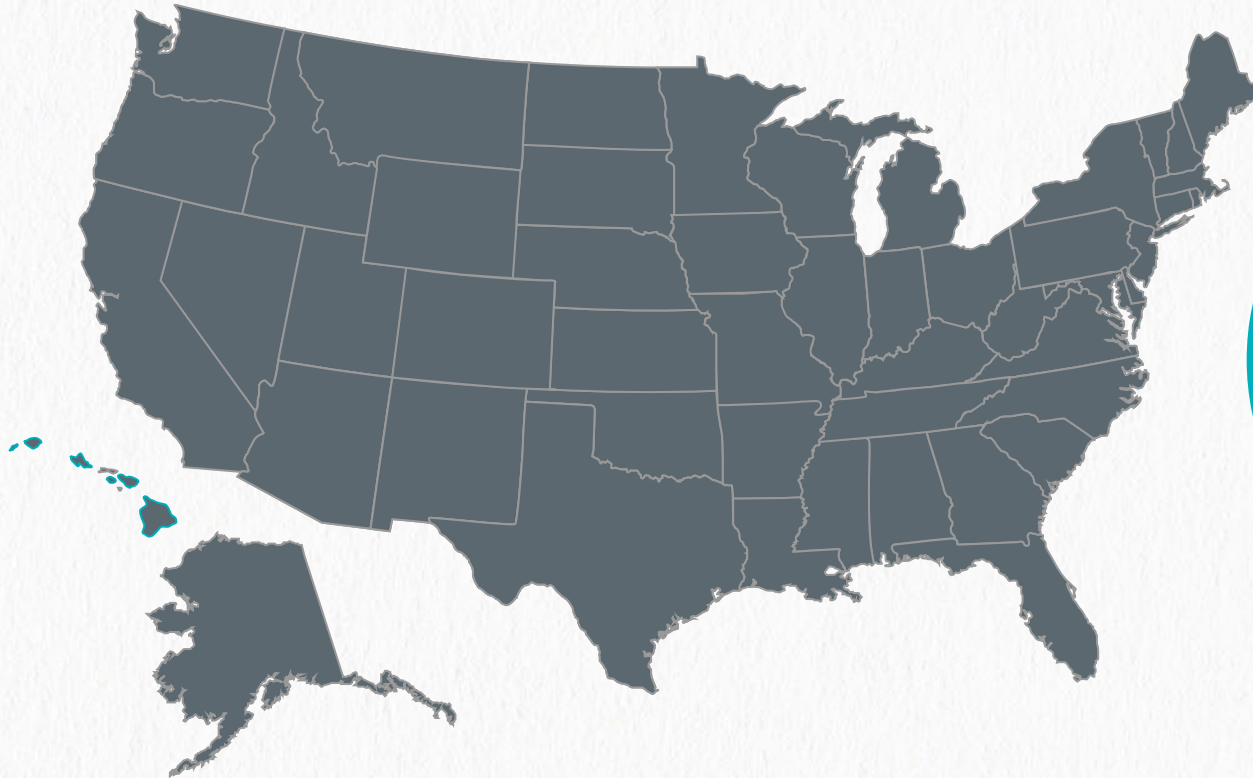
Students



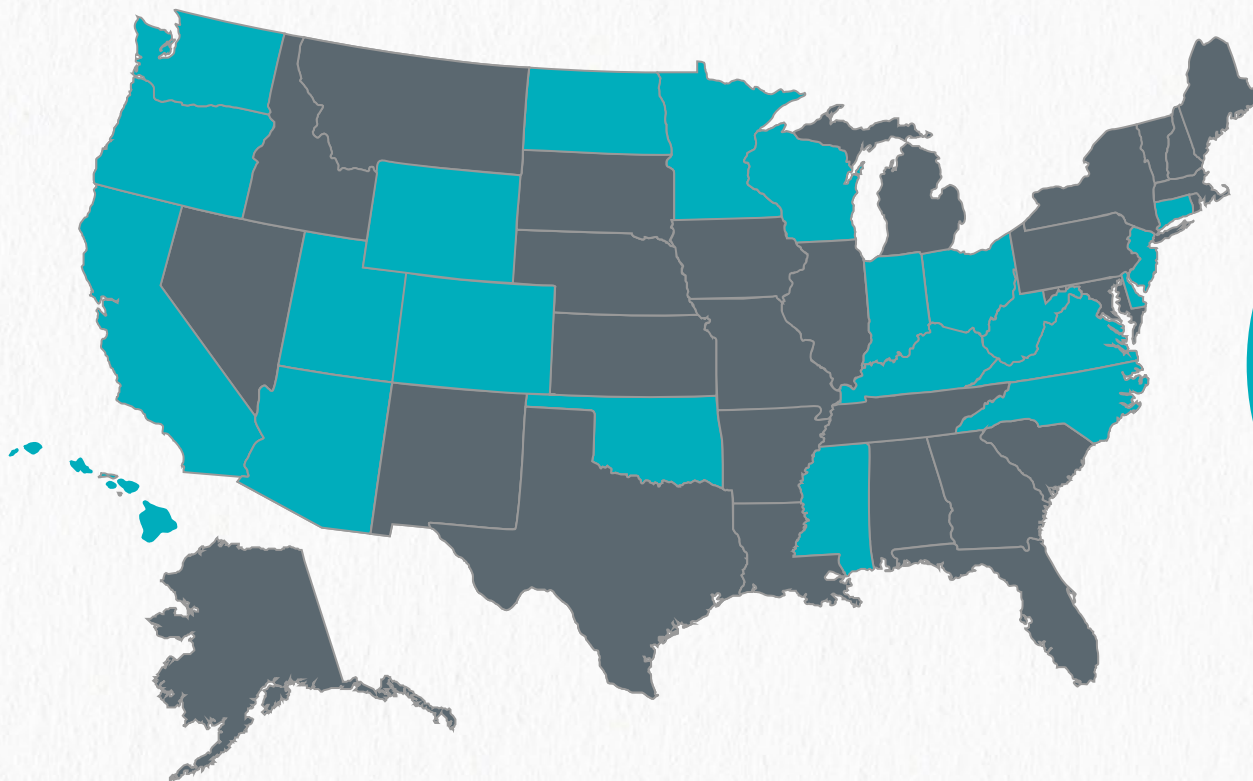
Teachers



States with AI Guidance (Aug 2023)

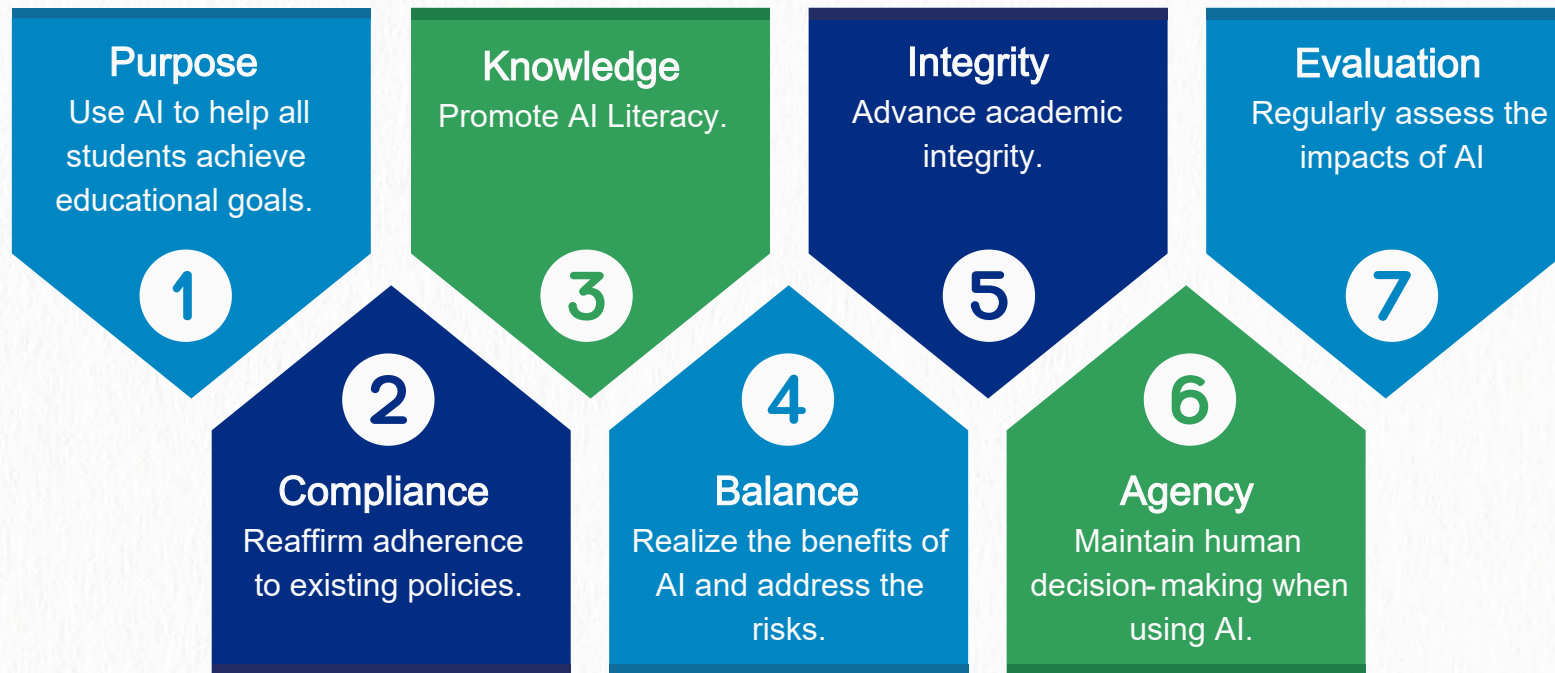


States with AI Guidance (Aug 2024)



22
States

Seven Principles for AI in Education



● Key Takeaway

**Let's create the foundation to
make the most of the AI opportunity.**

Q and A