



New York State
EDUCATION DEPARTMENT
Knowledge > Skill > Opportunity

Artificial Intelligence (AI) and P-12 Education

Office of Educational Design & Technology

March 11, 2024

Presentation to the New York State
Board of Regents



AI is:

amazon

NETFLIX



Source: NASA



AI is:

amazon

NETFLIX



Source: NASA

AI is NOT:



AI in schools is:

Intelligent
Systems

Instructional
Technology

Accessibility
Tools



What is Artificial Intelligence?

Artificial Intelligence (AI)

“The science and engineering of making intelligent machines”

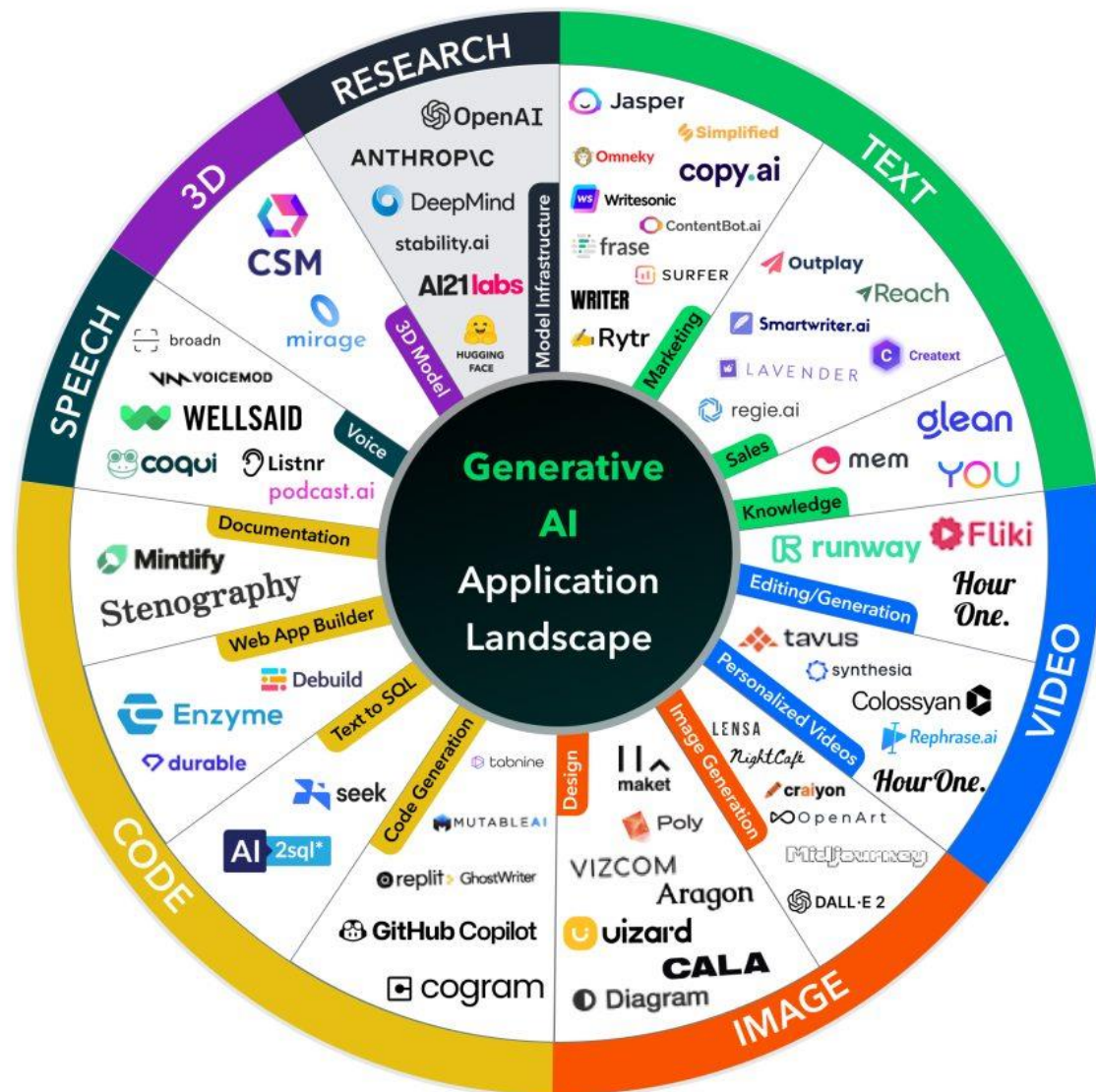
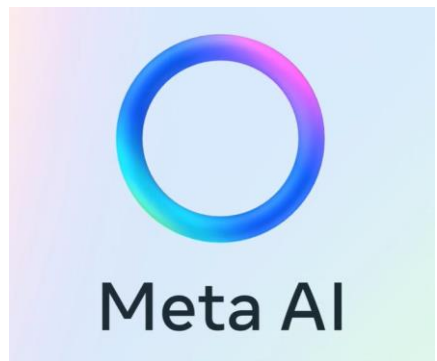
-Stanford Professor
John McCarthy, 1955

Generative AI

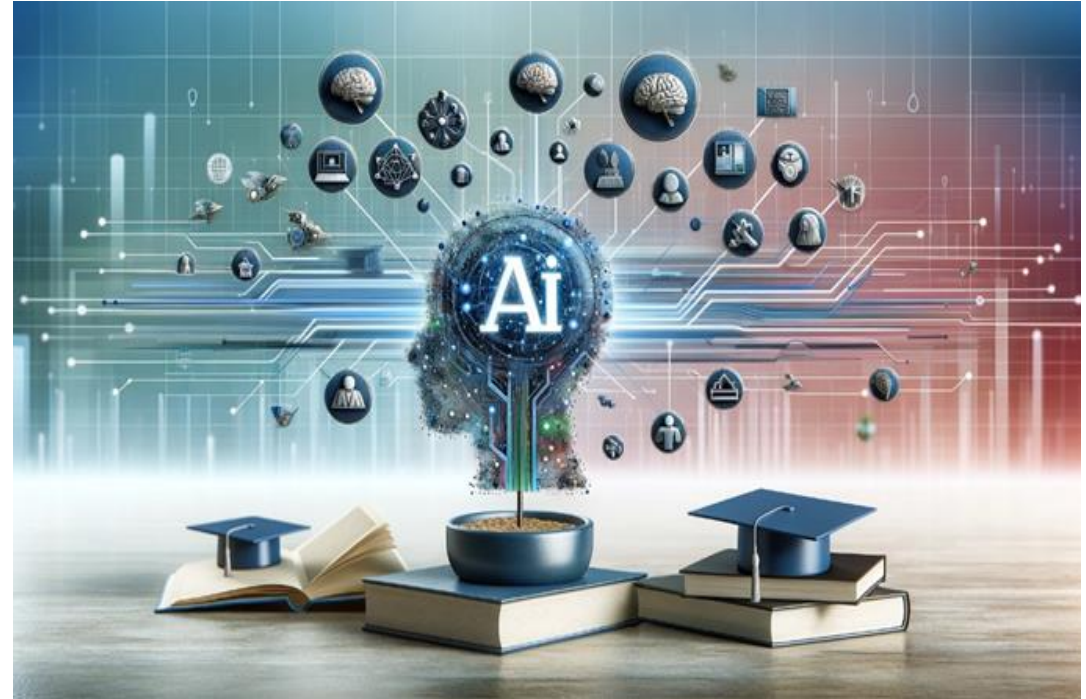
A subset of AI that creates **new, original content** based on patterns and structures learned from existing data.



It is not just ChatGPT...



Generative AI: Considerations for Educators



Artificial Intelligence and the Future of Learning.

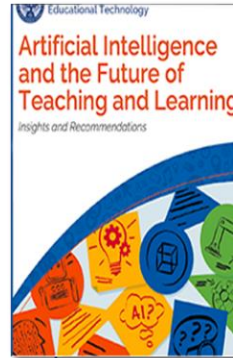


We envision a technology-enhanced future more like an electric bike and less like robot vacuums. On an electric bike, the human is fully aware and fully in control, but their burden is less, and their effort is multiplied by a complementary technological enhancement.



Source: *Artificial Intelligence and the Future of Learning.*
United States Department of Education. May 2023

Existing Policy



US Dept. of Education Reports

- *Artificial Intelligence and the Future of Learning* – May 2023
- *National Educational Technology Plan* – February 2024



Data Privacy Legislation

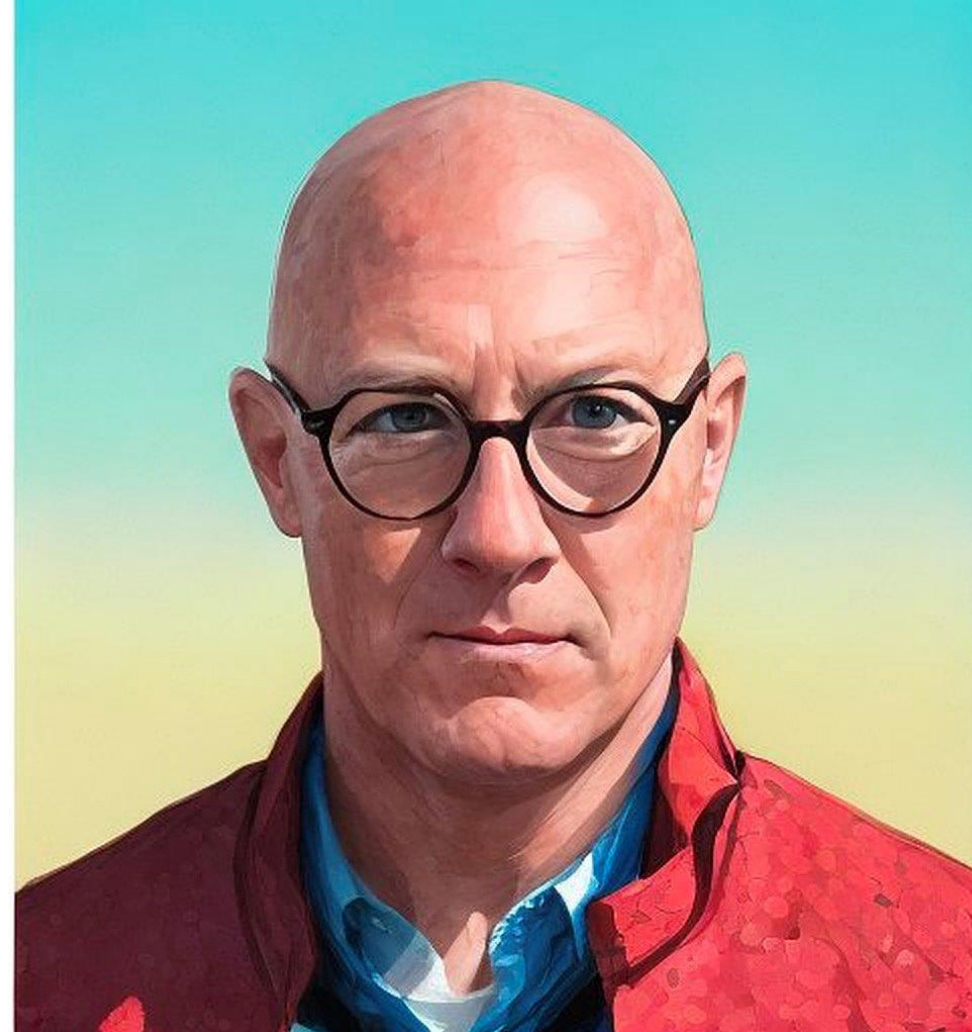
- FERPA
- COPPA
- Education Law 2-d



K-12 Computer Science and Digital Fluency Learning Standards

Dr. Michael Doughty

Assistant Superintendent
Northeastern Regional Information Center



Lensa

What's the path forward for P-12?

Equity and Access

Curriculum

Instruction

Assessment

Academic Honesty

Digital Fluency

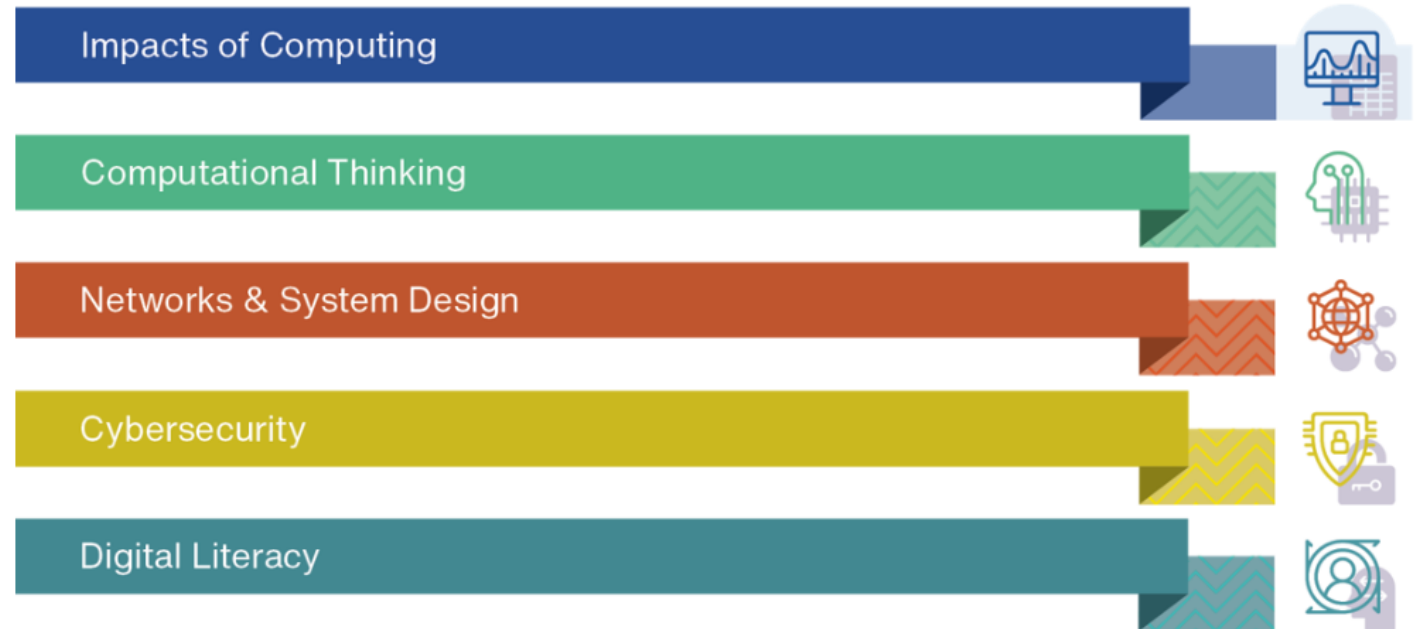
Digital Citizenship

Vigilance

Open Minds

Computer Science and Digital Fluency Learning Standards

The New York State K12 Computer Science and Digital Fluency Learning Standards were adopted by the Board of Regents in December 2020. The new standards focus on five key concepts:



Each concept contains two or more sub-concepts and within the sub-concepts are a number of standards. The standards are grouped into grade-bands: K-1, 2-3, 4-6, 7-8, and 9-12. Instruction in the standards must be implemented so as to allow students to achieve the applicable standards by the end of the band.

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There's no avoiding it, so might as well figure out how to use it and teach it the right way.

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Change the mindset of teachers towards AI. Right now it's always just DON'T use it whatsoever, but if they can understand AI and understand there's no getting around it then kids can utilize it in the correct way.

I think we need to find the balance between using AI and still making sure that kids understand what is being taught.

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There's no avoiding it, so might as well figure out how to use it and teach it the right way.

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What could a teacher actually **DO** with it?

- **Generate examples** to help students understand difficult and abstract concepts
- Provide **varied explanations and analogies** to address student misconceptions
- Produce **low-stakes assessments** so students can practice retrieving information
- **Assess students' knowledge gaps** to guide teachers' next steps
- Create distributed **practice exercises to reinforce learning**

(Source: “Using AI to Implement Effective Teaching Strategies in Classrooms: Five Strategies, Including Prompts” by Ethan Mollick and Lilach Mollick, *SSRN*, March 17, 2023)

Grade 5 Science Quiz

Renewable Energy Quiz. x +

chat.openai.com/chat

UR 900 9E AM GPT C T MM Soc Pres. Gartner G M CRB Apps CCSF Mags. RICs TSLS BOCES

+ New chat

Tech Training for Marginalized.

A.I. Trends in K-12

Water and Light Symbolism.

Clear conversations

Dark mode

My account

Updates & FAQ

Log out

Model
Default (GPT-3.5)

ChatGPT PLUS

NYS
ED
.gov

Bright Starts, Bold Futures in Artificial Intelligence



Our AI Mission

To advance digital equity for all learners, we are embracing AI as the key lever to dismantle inequitable systems, cultures, policies, mindsets, and behaviors that impede communities from civic and cultural participation, employment, and lifelong learning.

Our AI Vision

New York City Public Schools aims to be a global leader in integrating, building, teaching, and learning responsible and innovative AI and GenAI within the K12 education system, ensuring equitable access, privacy, security, and enhanced educational outcomes for all learners.



Tara Carrozza
*Director of
Digital Learning and
Innovation*

AI & Generative AI Milestones



Dec 2022	Chancellor creates Digital Learning and Innovation
Sep 2022	DLI offers ISTE U PD Course on AI in the Classroom
Jan 2023	ChatGPT blocked by NYCPS
May 2023	Chancellor unblocks ChatGPT and sends guidance to schools
Oct 2023	K12 AI Policy Lab Launches
Aug-Dec 2023	GenAI Algebra Teaching Assistant
Jan 2024	Citywide AI Literacy Training

NYCPS Instructional Priority



Carolyn Quintana
Deputy Chancellor of Teaching and
Learning
NYC Public Schools

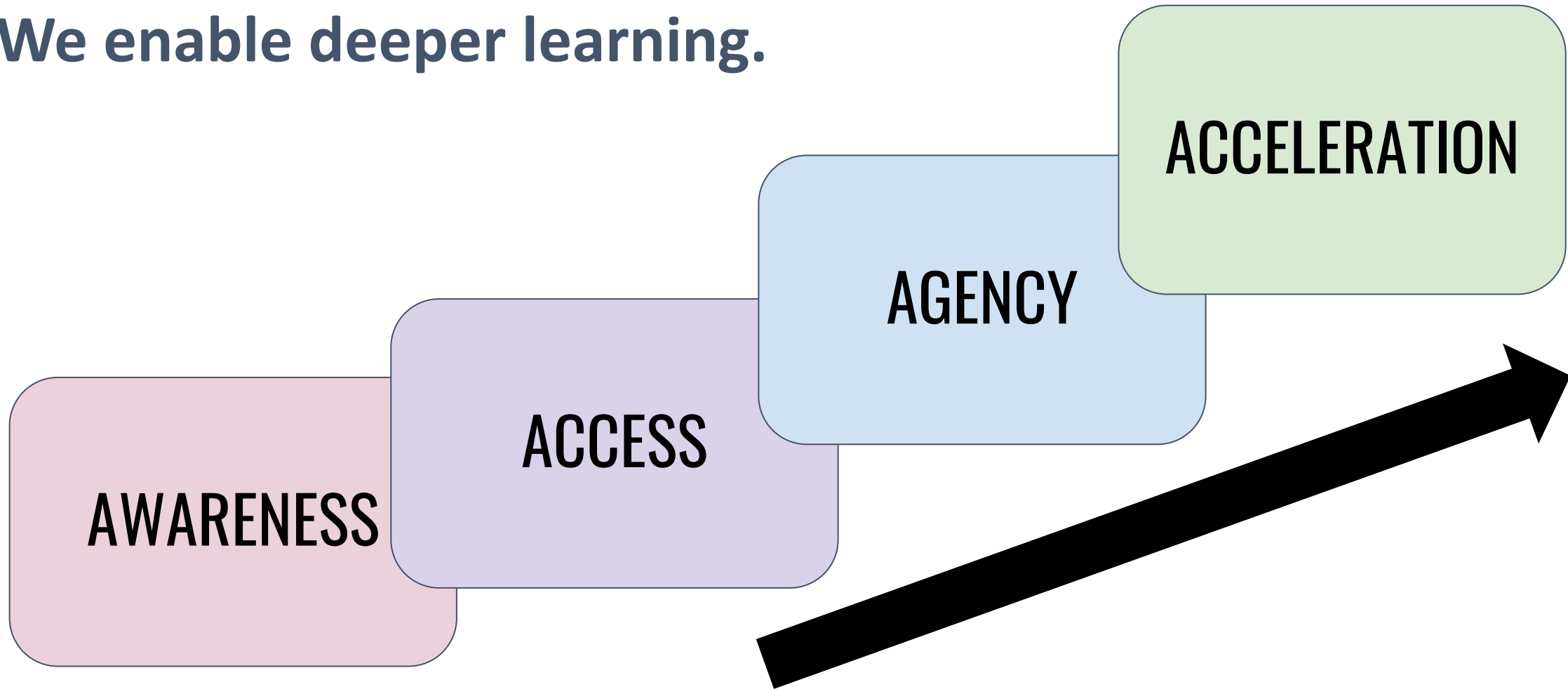
Every child must have a high-quality academic experience that leads to deeper learning.

Lever #1: Schools will facilitate mastery of core academic skills and content expertise.

Lever #2: Schools will facilitate pedagogy that prioritizes critical thinking and problem-solving skills.

Lever #3: Schools will facilitate a sense of belonging and inclusivity for all learners.

If digital learning tools activate all “A’s” . . .
We enable deeper learning.



Our Approach to Building AI Capacity

K12 AI Policy Lab

Digital
Learning & AI
Plans

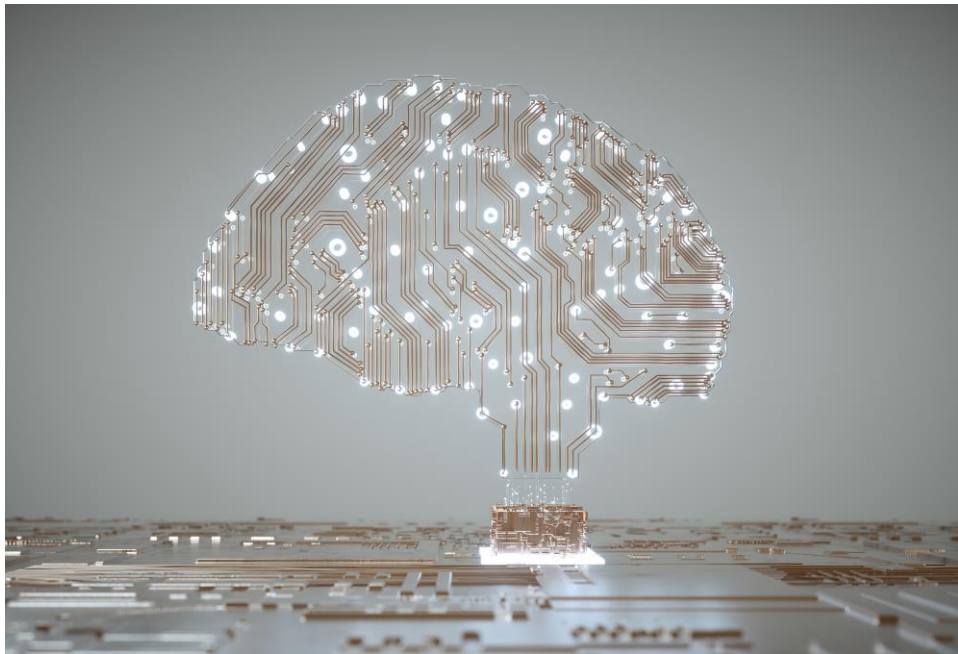


AI Literacy
Professional
Learning



AI Digital
Learning
Innovations

Office of Educational Design & Technology



*Smart Start
Grant*

*Learning
Technology
Grants*



Teacher Centers



*CSDF
Implementation
Support*



Thank You!

