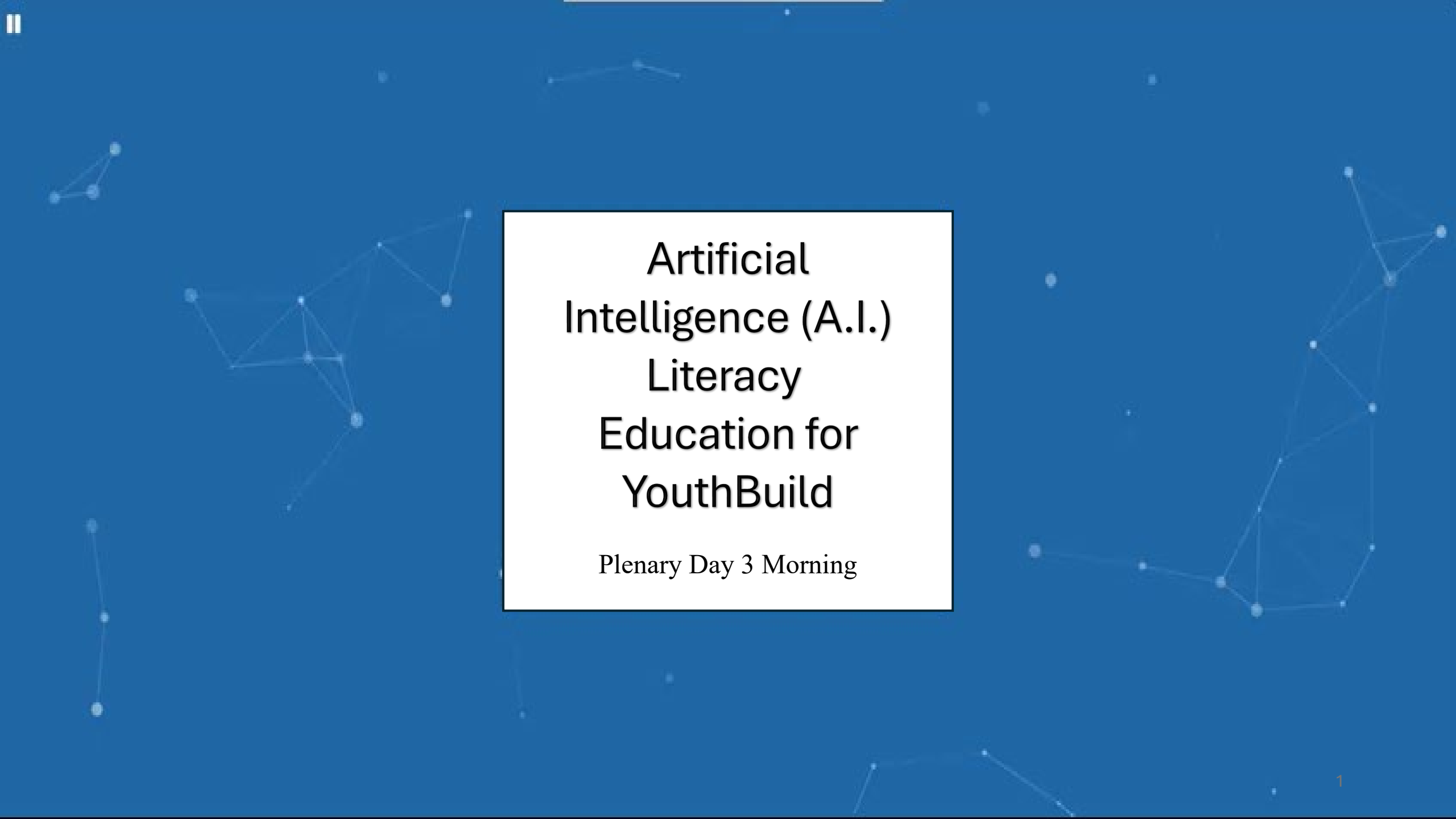




Artificial Intelligence (A.I.) Literacy Education for YouthBuild

Plenary Day 3 Morning

Presenters



Jeff Hunt
YouthBuild Director



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YouthBuild Workforce Analyst

Agenda

- 1) Background
- 2) A.I. Education in the Classroom
- 3) A.I. Education in Vocational Training
- 4) Conclusion and Resources





When you hear the abbreviation “A.I.,”
what tools come to mind?



Fast Facts

1 in 3

American adults lacks
basic digital skills (OECD)

2x

as many workers report
they use A.I. daily (8%) than
a year ago (Gallup)

~40%

of WEF employers surveyed
believe the skills in demand
today will *greatly change* or be
replaced by 2030

Predicted Most Important Skills in the year 2030:

A.I., cybersecurity, and tech literacy followed by **creative thinking;**
resilience, flexibility, and agility; curiosity; and lifelong learning.

(World Economic Forum)

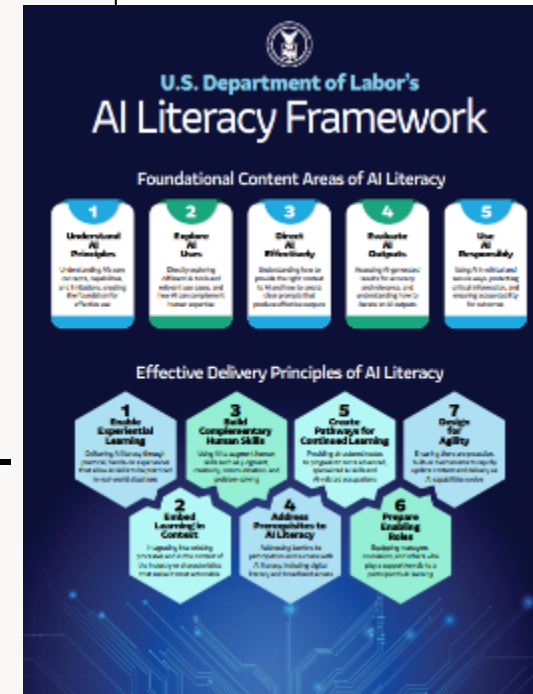
We're All Students of A.I.



Executive Order and TEN 07-25



- [Executive Order on A.I. Education for American Youth](#) - April 2025
 - *“The Secretary of Labor shall encourage States and grantees to use funding provided under the Workforce Innovation and Opportunity Act (WIOA) (Public Law 113-128), as amended, to develop A.I. skills and support work-based learning opportunities within occupations utilizing A.I.”*
- [TEN 07-25 | U.S. Department of Labor](#) Artificial Intelligence Literacy Framework - February 2026
 -  aiworkforce@dol.gov





TEN 07-25 Artificial Intelligence Literacy Framework

Foundational Content Areas of AI Literacy

1

Understand AI Principles

Understanding AI's core concepts, capabilities, and limitations, creating the foundation for effective use

2

Explore AI Uses

Directly exploring different AI tools and relevant use cases, and how AI can complement human expertise

3

Direct AI Effectively

Understanding how to provide the right context to AI and how to create clear prompts that produce effective outputs

4

Evaluate AI Outputs

Assessing AI-generated results for accuracy and relevance, and understanding how to iterate on AI outputs

5

Use AI Responsibly

Using AI in ethical and secure ways, protecting critical information, and ensuring accountability for outcomes

Classroom





Digital Literacy as a First Step

- Piloting A.I. requires a foundation of digital skills
- 92% of jobs require at least one digital skill
- Earnings rise with required digital skills
- Find simple skill guides and recommended resources at the US DOL Competency Model Clearinghouse: [Basic Computer Skills- Digital Literacy Competencies](#)



2.7.2 Using software

- 2.7.2.1 Use word processing software to compose, organize, edit, and print documents and other business communications.
- 2.7.2.2 Use spreadsheet software to create spreadsheets, enter, manipulate, edit, and format text and numerical data.
- 2.7.2.3 Use presentation software to create, manipulate, edit, and present digital representations of information to an audience.
- 2.7.2.4 Use database software to manage data.
- 2.7.2.5 Use electronic mail (i.e., email) software to manage contacts; send and receive email; and add, open, or download file attachments.

Assess Digital Strengths and A.I. Readiness



New on WorkforceGPS Prerequisites to A.I. Literacy: Digital Skills Checklist

Digital Skills Checklist: Prerequisites to A.I. Literacy

Determine a participant's readiness for Artificial Intelligence (A.I.) literacy education by assessing these basic digital skills.

Software and Applications

- ☐ Choosing the right program for a task (e.g., making a simple spreadsheet, making a slide deck, formatting and typing a letter or book report)

Internet Basics

- ☐ Using internet browsers (e.g., Edge, Chrome, Firefox, Safari)
- ☐ Navigating to a webpage through a direct link, URL, and search engine
- ☐ Using search engines (e.g., Google, Bing) for basic research on a topic
- ☐ Sharing an article with a friend
- ☐ Using an online dictionary and thesaurus

Rules of Use or Engagement

- ☐ Understanding applicable laws and regulations (e.g., pirating, nonconsensual photo sharing)
- ☐ Understanding proprietary information online, plagiarism, and how to avoid it
 - ☐ Using basic citations
- ☐ Understanding the rationale behind age restrictions
- ☐ Understanding user agreements and the consequences of violating them
- ☐ Online etiquette (e.g., consider tone, avoid spamming)
- ☐ Understanding how social media works and how content goes viral

Email

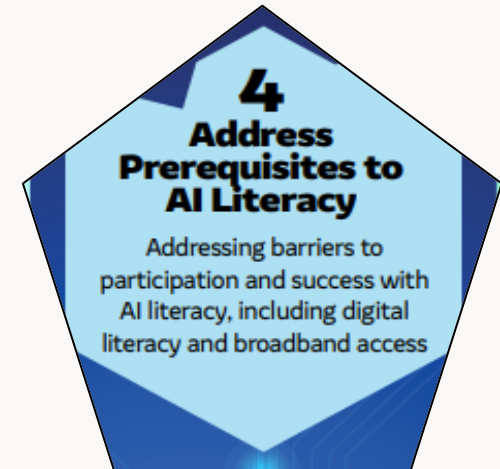
- ☐ Writing greetings and closings
- ☐ Understanding email servicers and domains
- ☐ Including a link in the body of text
- ☐ Attaching a file
- ☐ Replying, replying all, forwarding
- ☐ Using Cc, bcc

Direct Messaging

- ☐ Messaging for personal use
- ☐ Messaging for professional use

Safety and Health

- ☐ Prioritizing online safety through privacy measures and digital footprint management
- ☐ Interacting with strangers and the illusion of anonymity
- ☐ Cybersecurity (e.g. the dangers of phishing, password sharing scams)
- ☐ Protecting vision, ergonomic computing posture





Teachers as Digital Literacy Leaders

- Learn tools alongside your youth; narrate your learning journey, including what you found challenging or frustrating
- Teaching responsible use is a key element of full digital literacy
- Explain to participants when digital and A.I. projects are developing both technical and human skillsets like judgement, creativity, communication, and problem solving
- Even if you are just learning a tool, participants will still benefit from guidance through the lens of a teacher's experience and wider knowledge

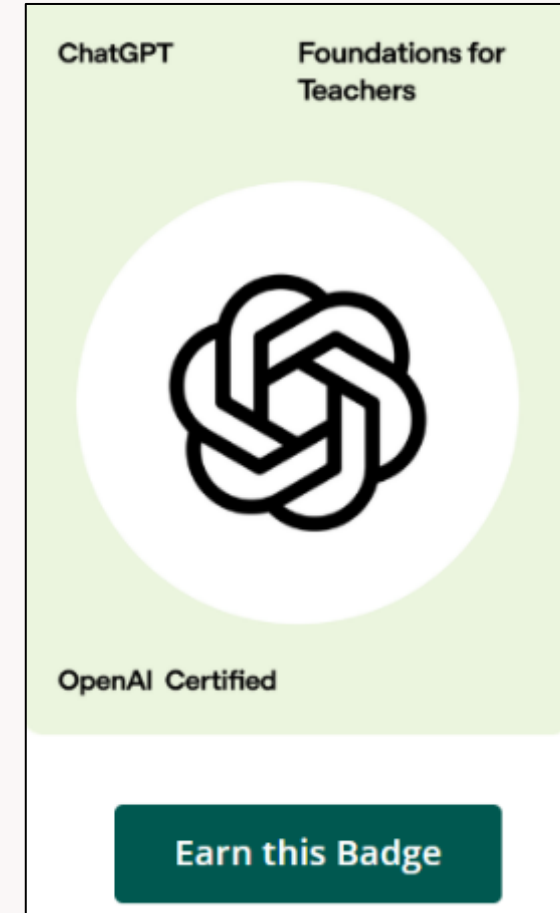




Sample Teacher Training

- Training provided free through the American Federation of Teachers
- Available to all on a virtual learning platform; asynchronous
- Designed by teachers, for teachers
- Focus on practical classroom use cases

[ChatGPT Foundations for Teachers | Coursera](#)





Example Curriculum Options



Teaching responsible use of
A.I. Lesson Plan

LATERAL READING GRAPHIC ORGANIZER		
Complete this graphic organizer based on the GenAI tools you explored.		
	Tool 1:	Tool 2:
What prompt did you use?		
*Tip: In your prompt, ask the AI directly to provide credible sources.		
What sources did the tool suggest?		
How credible were the sources?		
How did you know?		
*Tip: You may need to use other websites to check your sources.		
Overall, which tool do you think provided more credible sources? Why?		

CRAFT
Creative Responsible AI Framework for Teachers
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CRAFT



Be Internet Awesome - A Program
to Teach Kids Online Safety

Google Research



AI QUESTS

Accept mission

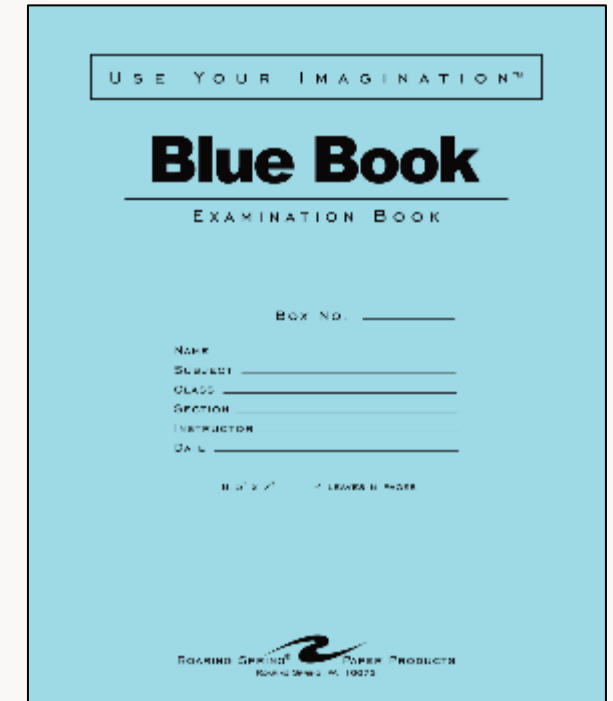
 About

 Teacher resources

Plagiarism



- Cheating is easier than ever; teachers must evolve how they assess learning
- Full bans lead to missed educational opportunity
- Can A.I. be integrated as a tool in an assignment? e.g., prompt your preferred A.I. tool to write a flawed science report and encourage students to point out its weaknesses using the scientific method ([Carnegie Learning](#))
- Test and practice traditional lessons in person, e.g., write essays in blue books, complete a math worksheet in pencil
- Useful homework: reading, preparation for classroom activities





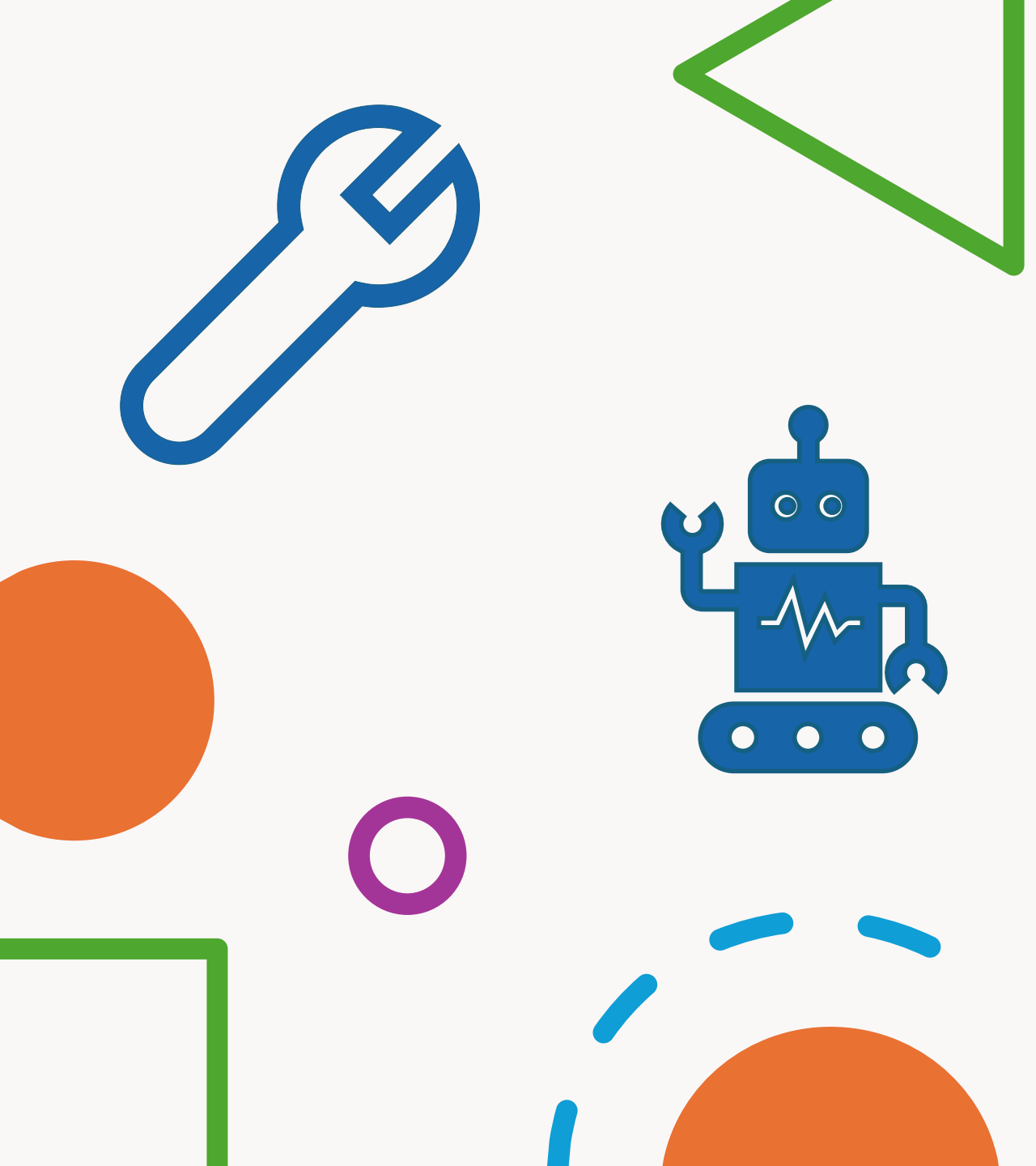
Use A.I. to Differentiate Instruction

Differentiated instruction is a teaching approach that adapts instruction to meet varying student needs. A.I. tools can...

- adjust the reading levels of texts
- create scaffolded questions
- produce written transcripts of audio/video lessons and audio-friendly lesson plans
- create flashcards and other personalized study aids
- translate classroom materials into students' native languages

Vocational Training





What are “A.I. Jobs”?

Most jobs are A.I. jobs!

Resistant Industries?

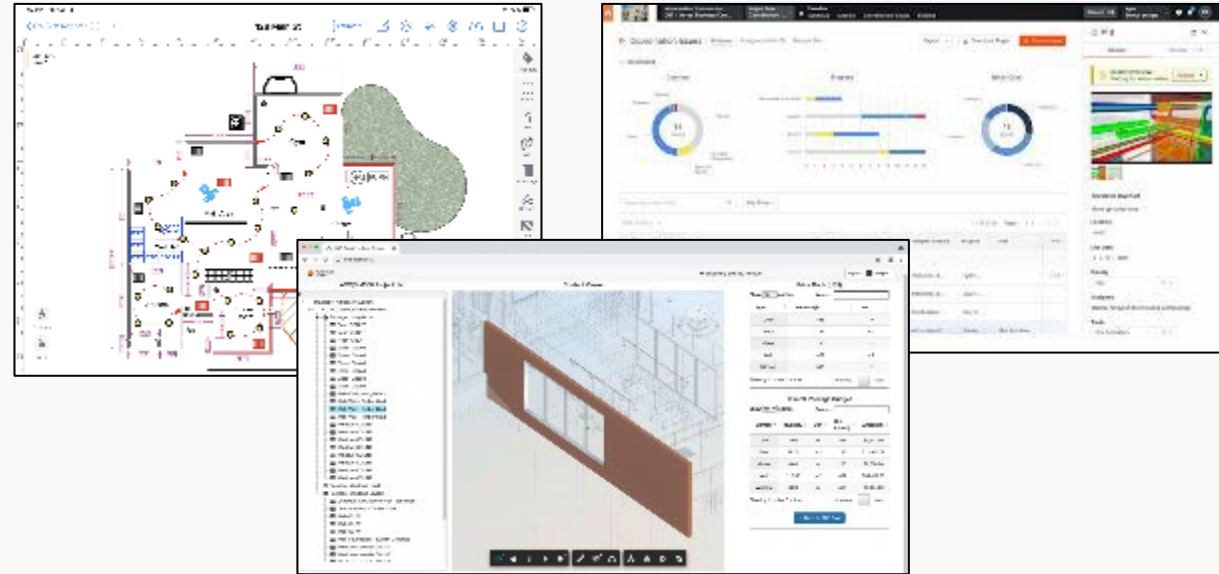
- Construction
- Healthcare
- Manufacturing



Construction

Growing uses of A.I. and Digital Tech in Construction

- Construction Project Management: Procore, Autodesk, Construction Cloud, PlanGrid
- Building Inspection Models
- Drones and robots with skilled operators
- Prefabrication and modularity w/ operator assistance



Example:

A human drives a stakeless grading machine, but it runs a program that uses CAD plans designed with A.I. and GPS to automatically adjust the pitch and depth of the grading blade to move earth without the guidance of stakes. Workers will need digital skills that will allow them to interact with and operate the automation equipment.

Exploring the Impact of Digital Technology in Construction



Risk of Automation

[Digitalization & Automation in the Construction Trades](#)

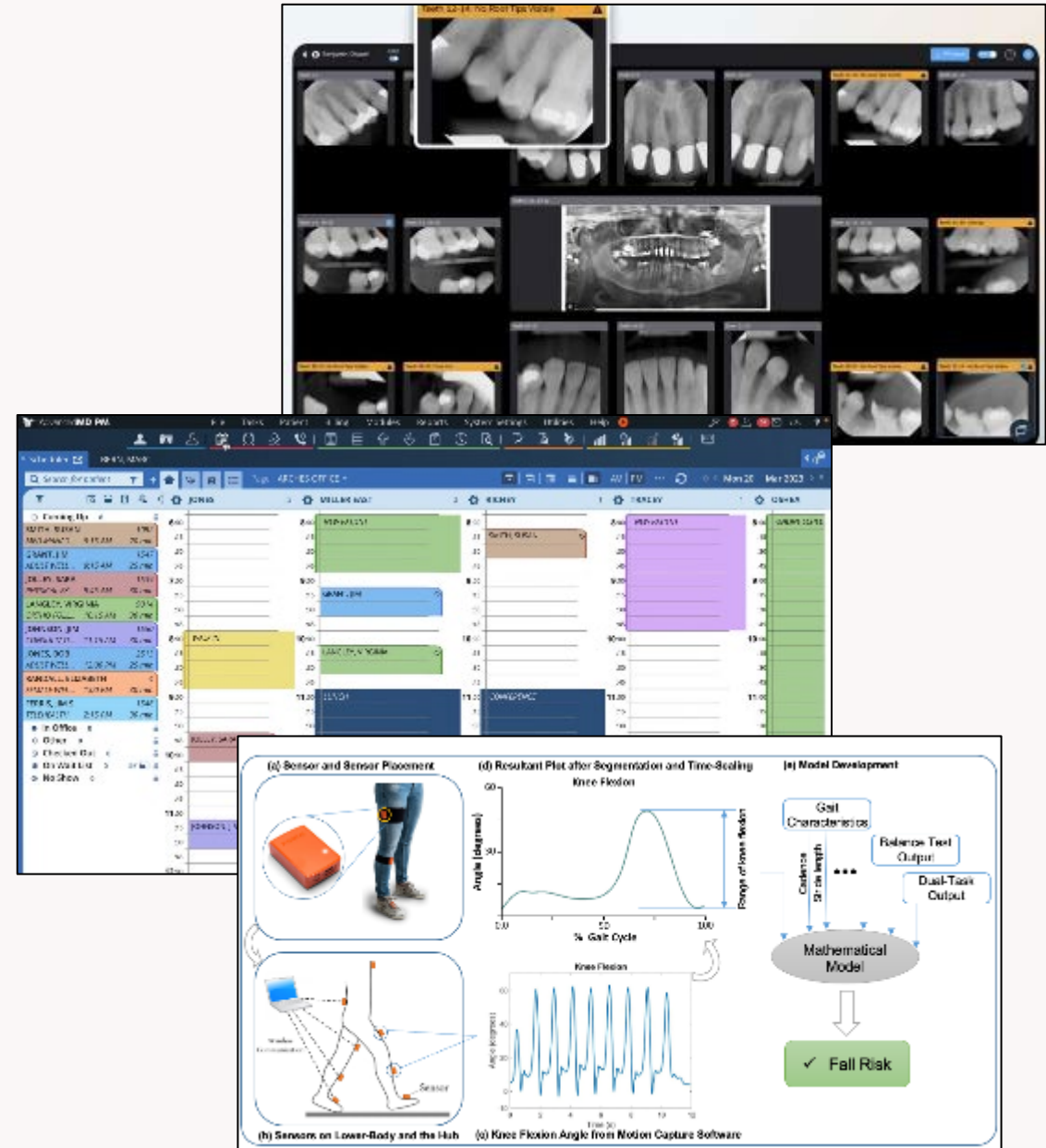
	Site Preparation	Substructure	Superstructure
Operator Assistance	Grading	Pile driving	Materials handling
	Bricklaying	Concrete pouring	Concrete pouring
	Materials handling		Concrete finishing
	Erosion control		
Partial Automation	Concrete finishing		
	Earthmoving	Pile driving	Bricklaying
	Excavation	Pipe installation	Fabricate architectural components (in place)
	Pavement placement		Install façade components
	Concrete finishing		Position structural components
	Pavement repair		Tying rebar
Conditional Automation			Concrete finishing
			Materials handling
	Material hauling	Assemble forms	Assemble architectural components
	Stormwater management	Boring	Assemble structural components
		Spray concrete	Bricklaying
			Fabricate structural elements (in place)
High Automation			Welding
	Earthmoving		Assemble architectural components
Full Automation	Excavation		Assemble structural components
	Material handling/hauling		Install structural foam

(adapted from Melenbrick, Werfel, & Menges)¹⁷



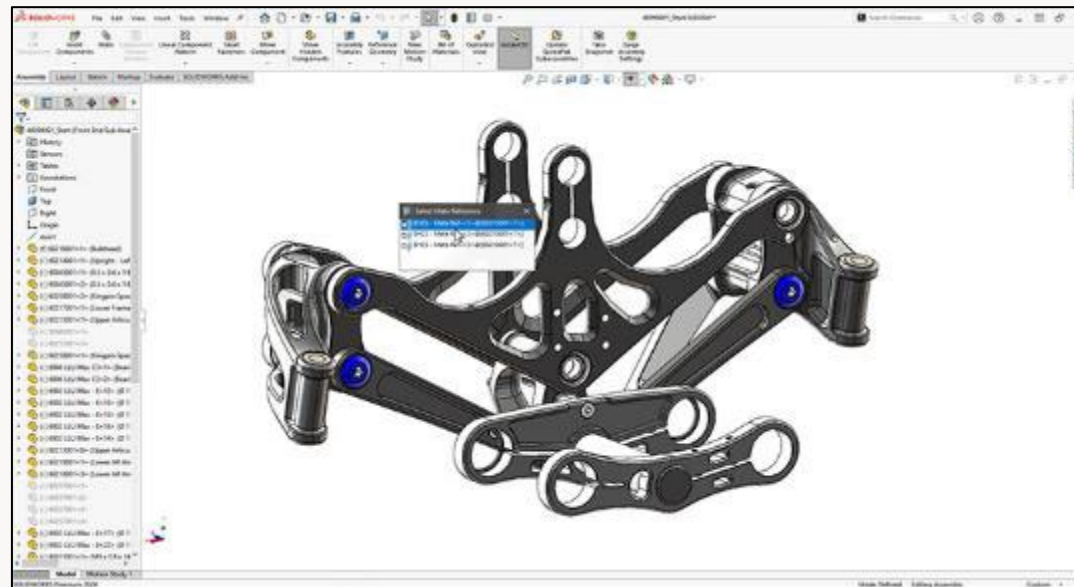
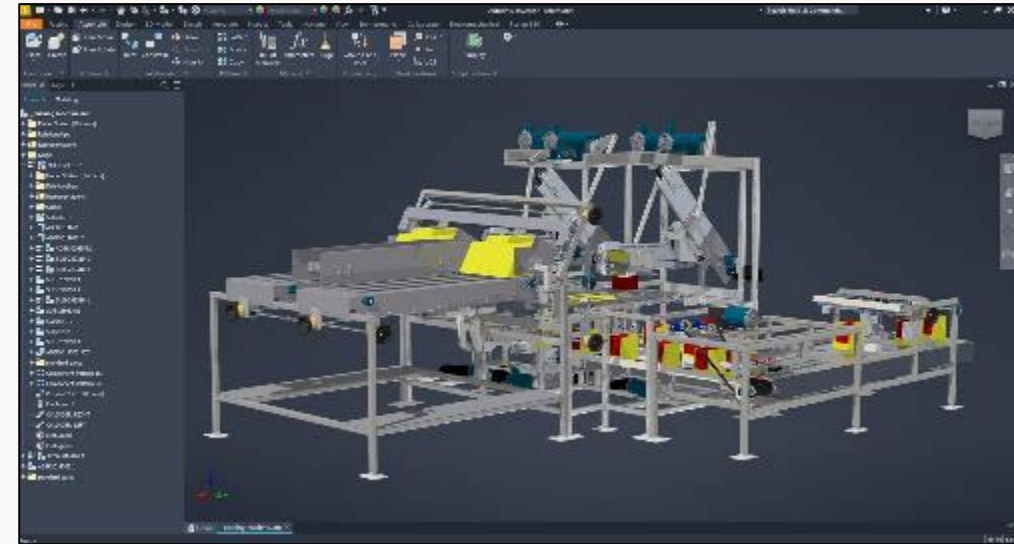
Healthcare

- A.I. flags for MRIs, X-Rays, and CAT scans
- Medical note taking (replacing scribes)
- Patient fall prediction
- A.I. appointment scheduling
- Aspects of billing and coding
- Remote monitoring
- Preventative medicine



Manufacturing

- CAD
- Quality control
- Automated supply chains
- Predictive maintenance
- Product design

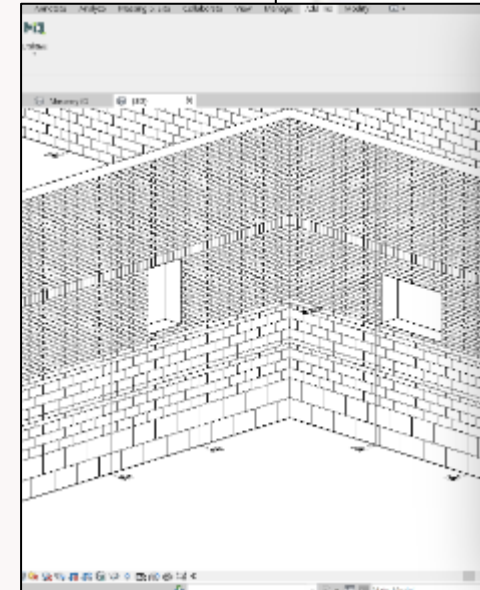
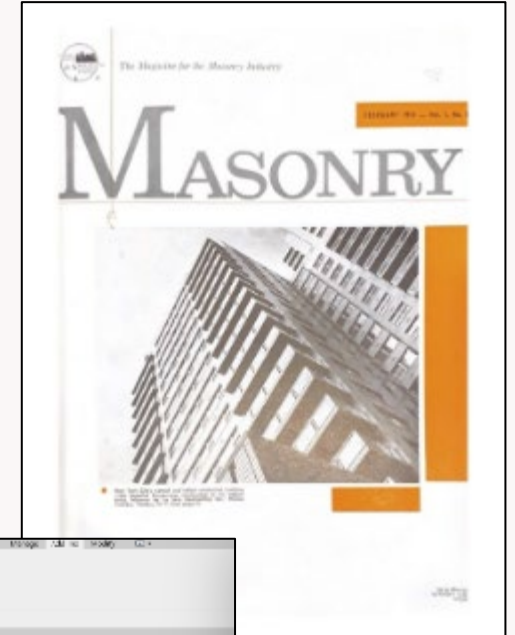


Partnering with Employers—Scenario Study



📍 Anne Arundel County, MD

Occupation Title	Base Employment	Projection Employment	Numeric Change	Percent Change	Replacement	Total Openings
Billing and Posting Clerks	861	886	25	2.90%	893	918
Biological Science Teachers, Posts..	76	87	11	14.47%	63	74
Biological Scientists, All Other	239	264	25	10.46%	181	206
Biological Technicians	89	94	5	5.62%	112	117
Bookkeeping, Accounting, and Audi.	2,667	2,617	-50	-1.87%	3,060	3,010
Brickmasons and Blockmasons	128	152	24	18.75%	112	136
Brokerage Clerks	107	118	11	10.28%	127	138
Budget Analysts	272	292	20	7.35%	183	203



Tie Classroom A.I. Lessons to Training



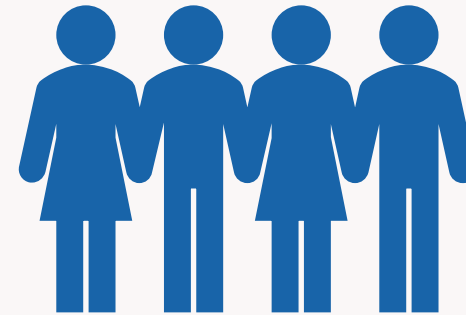
- Use A.I. as an idea generator for community service, leadership activities, or construction skill projects
- Connect participants to job shadows of software and A.I. users in the trades and other industries
- Use A.I. tools to gather information on new apprenticeship opportunities and job openings

Where Do I Begin?

- Review your curriculum and determine where AI education fits organically into lessons or where it may enhance learning experiences. Invite partners, employers, and RA representatives to share insight.
- Explore and share free resources to develop fundamental AI skills in educators, administrators, and staff.
- Set a staff learning goal.
- Research AI use in your local and regional labor market.



Workforce practitioners must be resilient, flexible, and adaptable. There are technology shifts to come.



Related TA

- [Digital Literacy and Resilience: Resources to Support Digital Skill-Building](#)
- [Exploring Healthcare Pathways for YouthBuild Programs](#)
- [Exploring Manufacturing Pathways for YouthBuild Programs](#)
- [Healthcare Catalog: A Collection of Occupations](#)
- [Local Labor Market Data Workbook: Your Strategic Pathway Design Tool](#)
- [Prerequisites to A.I. Literacy: Digital Skills Checklist](#)
- [Sample Letter to Apprenticeship Representative](#)
- [Using Labor Market Data to Design Career Pathways](#)
- [U.S. DOL Competency Model Clearinghouse](#)

Additional Resources

- [Advancing Artificial Intelligence Education for American Youth – The White House](#)
- [A.I. Quests: Google Research and Stanford Accelerator for Learning and Guide for Classroom Teachers: A.I. Quests Teacher Guide Overview](#)
- [Be Internet Awesome curriculum](#)
- [ChatGPT Foundations for Teachers | Coursera](#)
- [Classroom-Ready Resources About A.I. For Teaching \(CRAFT\)](#)
- [Future of Jobs Report 2025: 78 Million New Job Opportunities by 2030 but Urgent Upskilling Needed to Prepare Workforces | World Economic Forum](#)
- [Google for Education Teaching responsible use of A.I. Lesson Plan](#)
- [TEN 07-25 | U.S. Department of Labor A.I. Literacy Framework](#)