

The logo features a stylized 'C' composed of three overlapping curved segments in blue, orange, and green.

CTE News & More

Artificial Intelligence in Career & Technical Education

November 12, 2025

Holli Ryan-Kalaleh, CTE Program Supervisor

With Special Guest:

Chester Hoberg, STEM Teacher, Shelton SD



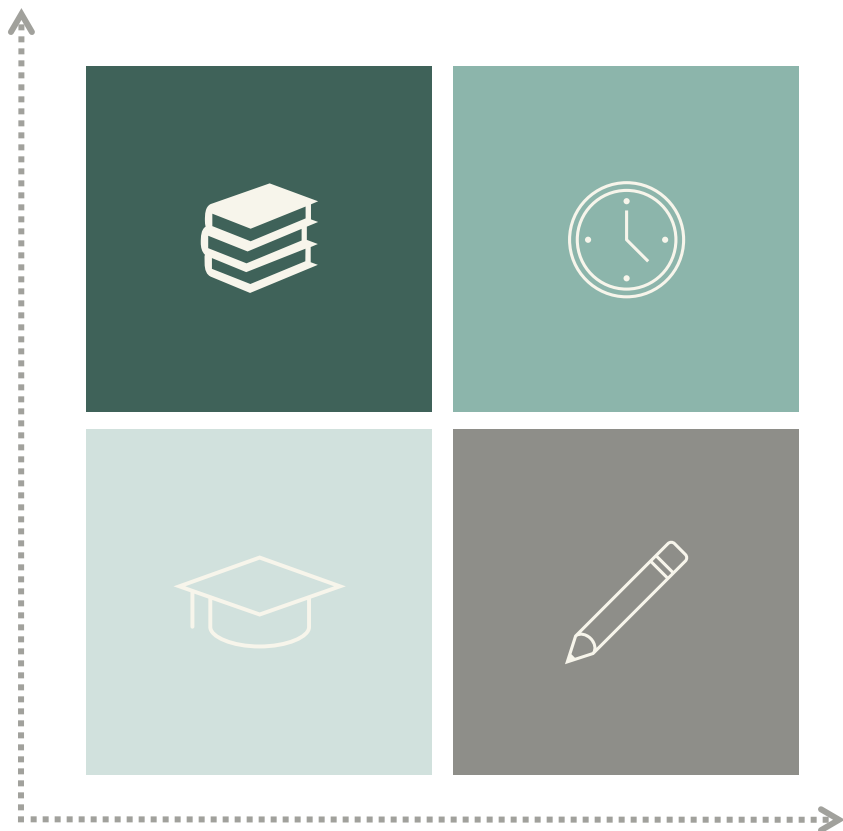
Washington Office of Superintendent of
PUBLIC INSTRUCTION

Tribal Land Acknowledgement

I would like to acknowledge the Indigenous people who have stewarded this land since time immemorial and who still inhabit the area today, the Steh-Chass Band of Indigenous people of the Squaxin Island Tribe. We encourage you all to learn about these lands that we are all guests of today.



Agenda / Concepts



Clock Hours & Some Things for CTE Creators

AI Perspectives & Reminders

CSM in the Learning Environment

AI Agents

Q & A



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Please Note:
Clock Hour is only available
for attendees who
virtually attended the
meeting on November 12,
2025.

Clock Hour Available!

Drop your name & local education agency (LEA) in the chat so we know who's here today!



1. **Rename your Zoom name (First & Last Name) so we have an accurate attendance list.**



2. **Register for clock hours by using the link below or the link in the chat.**



3. **Take the pdEnroller survey that is automatically emailed to you.**



4. **OSPI will enter attendance, and the hour will show up on your transcript!**

Registration Link: <https://www.pdenroller.org/ospi/catalog/195703>

Note: You must register by November 19 at 5pm to be awarded the clock hour for this session.



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Verification Reports

The CTE Team is Building Verification Reports Now. Ready for Release Mid-January.

	A	B	C	D	E	F	G	H	I	J	K
	LEA Action	App Id	District Name	CIP Co	CIP Name	Program Area	Learning Type	Last Revised Date	Current Status	Enrollment/Ced	Notes
1	LEA Action										
2	Action Required	37000	District	91001	Publishing	Business and Marketing	High School	5/7/2023 10:48	Pending User Action	Claiming \$ and not approved in EDS	Zero Enrollment
3	Action Required	28249	District	500502	Technical Theater/Theater Design Technology/Technician	Skilled and Technical Sciences	High School	8/27/2018 9:20	Not Approved	Claiming \$ and not approved in EDS	
4	Requires New Application	32692	District	30103	Environmental Studies	Agriculture Education and Science	High School	8/9/2019 14:56	Approved		
5	Requires New Application	18549	District	30198	Sustainable Design and Technology	STEM	High School	9/27/2021 10:48	Application for the 2026-2027 SY		
6	Requires New Application	30658	District	30506	Forest Management/Forest Resources Management	Agriculture Education and Science	High School	8/9/2019 15:06	Approved		
7	Requires New Application	18550	District	100202	Video Production Technology/Technician	Skilled and Technical Sciences	High School	2/6/2020 10:38	Application for the 2026-2027 SY		
8	Action Requested	38432	District	30103	Environmental Studies	Agriculture Education and Science	Not Assigned	12/13/2023 10:58	Created		
9	None	36189	District	10308	Agroecology and Sustainable Agriculture	Agriculture Education and Science	High School	4/21/2022 12:21	Approved		
10	None	38170	District	100303	Prepress/Desktop Publishing and Digital Imaging Technology/Technician	Skilled and Technical Sciences	High School	1/8/2024 15:18	Approved		
11	None	25162	District	110201	Computer Programming	Business and Marketing	High School	3/24/2023 13:15	Approved		
12	None	18552	District	110201	Computer Programming	Business and Marketing	High School	3/24/2023 13:15	Approved		
13	None	25390	District	110699	Office User Specialist	Business and Marketing	High School	3/24/2023 13:15	Approved		
14	None	40088	District	110701	Introduction to Technology	Information Technology	High School	8/12/2025 12:51	Approved		
15	None	25191	District	110701	Introduction to Computer Science	Business and Marketing	High School	3/24/2023 13:15	Approved		
16	None - Info Only	8726	District	100202	Video Production Technology/Technician	Skilled and Technical Sciences	High School	11/9/2009 9:56	Not Approved		
17	None - Info Only	22678	District	110201	Computer Programming	Business and Marketing	High School	12/1/2017 14:36	Not Approved		
18	None - Info Only	14001	District	110201	Computer Programming	Business and Marketing	High School	12/20/2011 13:19	Not Approved		
19	None - Info Only	3119	District	110201	Computer Programming	Business and Marketing	Not Assigned	10/13/2007 10:38	Not Approved		
20	None - Info Only	3116	District	110601	Digital Communication Tools	Business and Marketing	Not Assigned	10/13/2007 10:37	Not Approved		



Integrating AI in CTE Programs



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Legal Disclaimer

The Office of Superintendent of Public Instruction (OSPI) does not endorse or recommend any commercial product over another. We are experiencing a paradigm shift; AI will redefine our interaction with knowledge.



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Sensitive and Confidential Data

1. Ensure that your LEA AI use complies with student/personal privacy and data protection laws. Be aware of and follow any age restrictions for the use of all AI tools and resources
2. Have a clear understanding of your data collection processes. Update policies to include the use of and considerations for using AI
3. Give users options to opt-out or delete their data if they want

FERPA: Family Education Rights and Privacy Act requires that schools not disclose personal identifying information of a minor or eligible student without express written consent of the parent or eligible student.

COPPA: Children's Online Privacy Protection Act requires schools to obtain parental consent before allowing students under 13 to use online services that collect, use, or disclose personal information.

CIPA: Children's Internet Protection Act requires that schools implement an internet safety policy that includes protective measures to block or filter access to obscene or harmful content.

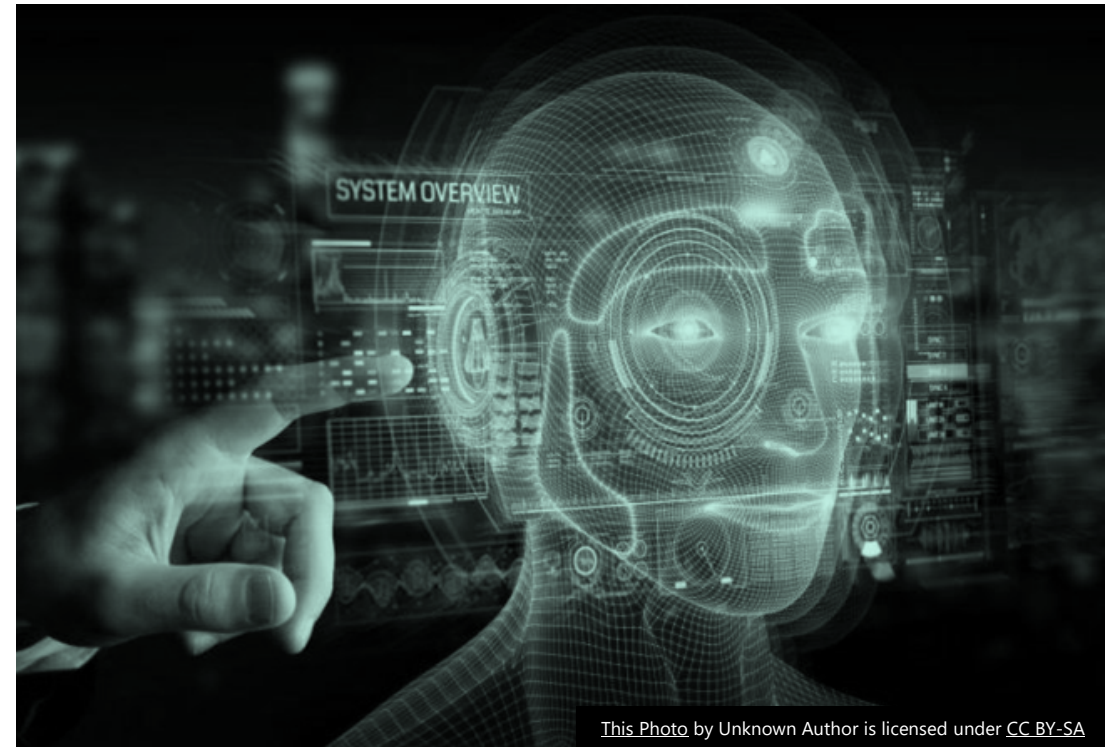


Teaching AI Tools in CTE

Study highlights:

- "66% of leaders say they wouldn't hire someone without [AI skills](#)."
- "71% say they'd rather hire a less experienced candidate with AI skills than a more experienced candidate without them."
- "And junior candidates may have a new edge: 77% of leaders say, with AI, early-in-career talent will be given greater responsibilities."

2024 Work Trend Index Annual Report



This Photo by Unknown Author is licensed under CC BY-SA



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Perspective



[This Photo](#) by Unknown Author is licensed under [CC BY 3.0](#)

"... don't need to be able to code, but you must be able to speak both tech and customer."

The question isn't "how do we add AI?" but rather "how can AI enhance what our students need to know."

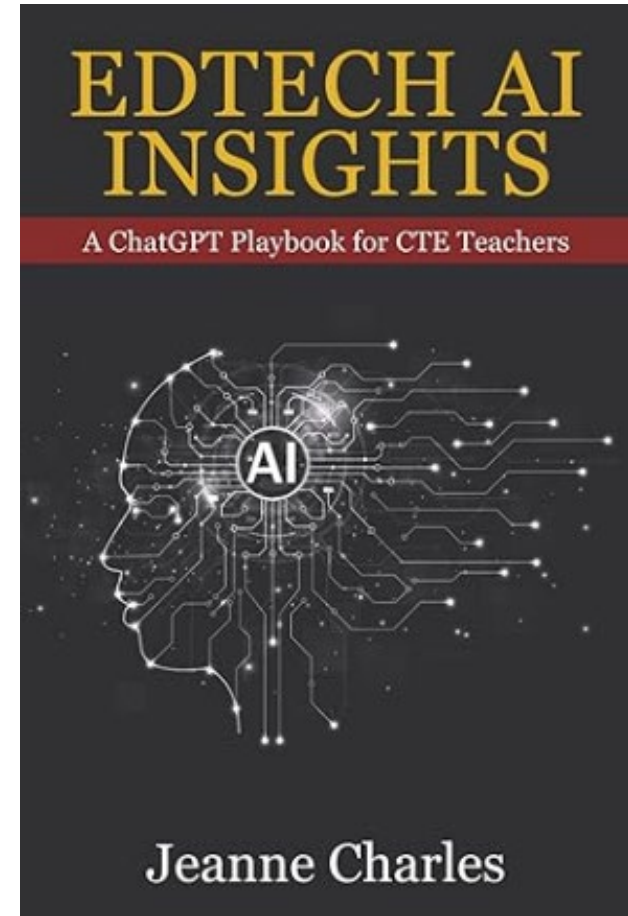


Washington Office of Superintendent of
PUBLIC INSTRUCTION

Where to Begin

"When students observe teachers confidently utilizing ChatGPT, they internalize the importance of adaptability and continuous learning – critical skills required for technology-driven careers. By modeling curiosity and open-mindedness, educators inspire students to comfortably explore and utilize new technologies."

– Jeanne Charles

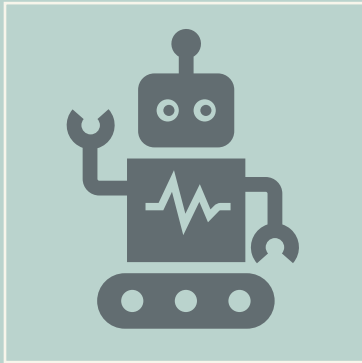




[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

Ethics & Literacy: Preparing Students to Work with AI Tools

The Literacy



AI Literacy is the understanding and skills needed to effectively interact with, evaluate, and utilize artificial intelligence technologies. It encompasses knowledge of AI concepts (how AI works, including machine learning, neural networks, and algorithms), Critical Evaluation, Practical Skills, Impact Awareness



Applying AI in CTE where it fits

[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

The Future of Work: How Artificial Intelligence is Changing the Job Market

Meet Miles: Conversational Speech Model (CSM)

Emotional Intelligence

- Recognizes emotional cues & responds with appropriate tones

Contextual Memory

- Maintains conversation history for ongoing dialog

Natural Speech

Patterns

- Conversations *feel* authentic and engaging



Applying AI in CTE Where it fits

Where can CSM technology be used to benefit students and educators?



- app.papochat.com – Provides coaching for CTSO competitions

Conversational Speech Model (CSM)

**Open-Source Voice
Model
AI Image & Video
Generator
Virtual Assistants**



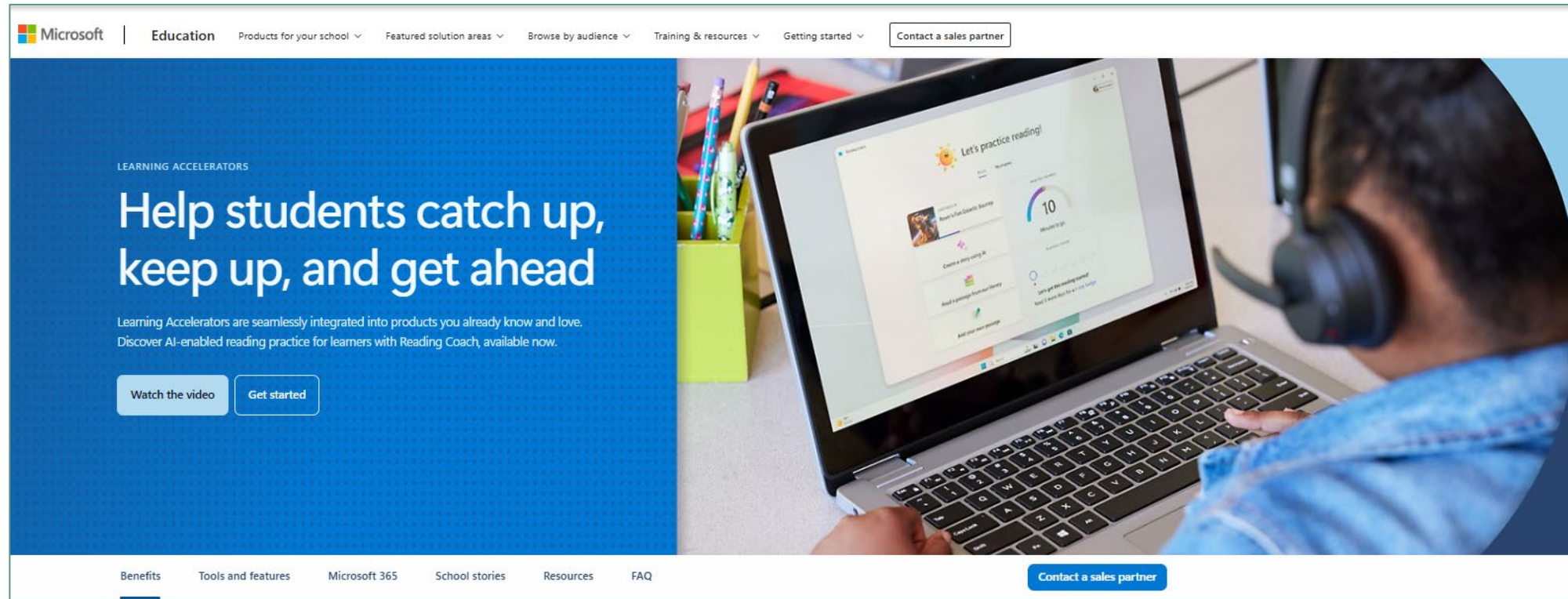
Washington Office of Superintendent of
PUBLIC INSTRUCTION

Microsoft Learning Accelerators

Summary

Report

- Pace
- Filler words
- Pitch
- Pronunciation
- Content
- Cultural Sensitivity
- Repetitive Words
- Body Language



Applying AI in CTE Where it Fits



This Photo by Unknown Author is licensed under CC BY

AI Agents

An **AI agent** is a system—often software-based—that uses artificial intelligence techniques to perceive its environment, make decisions, and take actions to achieve specific goals.

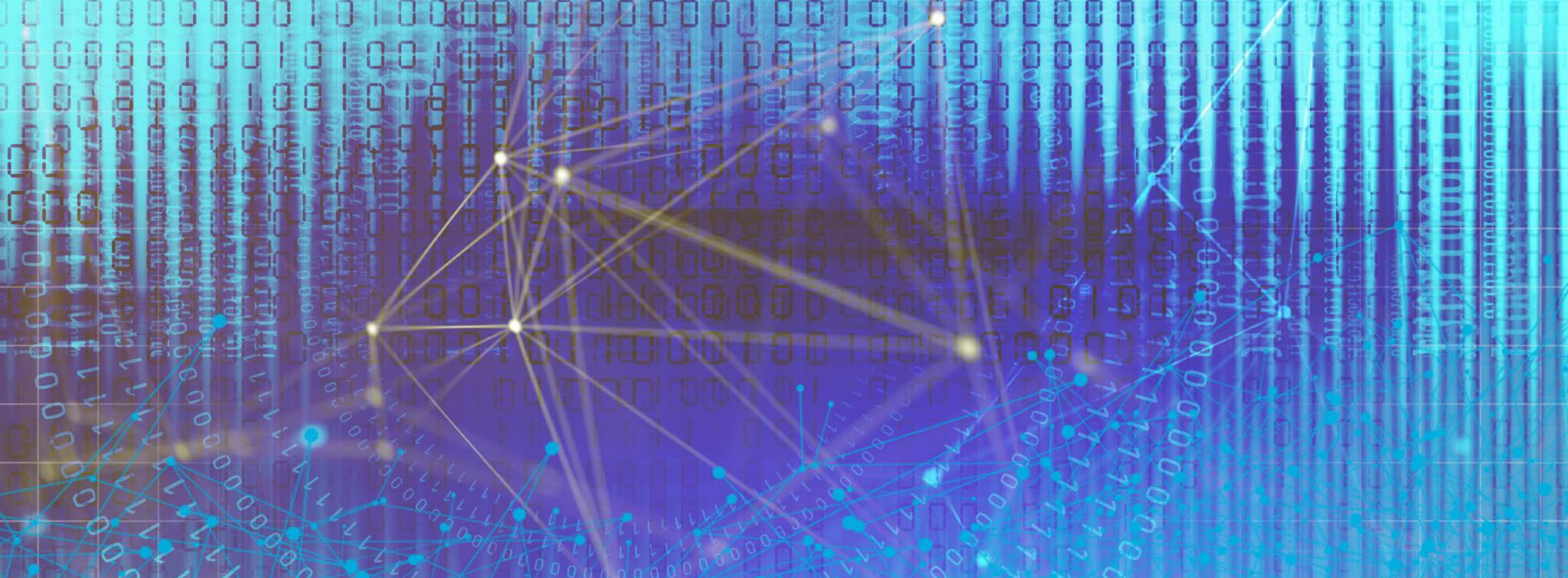
Chester Hoberg

CTE STEM Teacher
Cedar High School

AI Agent Lesson Plan Access

<https://tinyurl.com/4zk6jwbe>





AI Agent Search Lesson Overview

Introduction to AI agents and search strategies

Slide deck created using Copilot in Word – Chester Hoberg

Teacher Setup

Creating a Google Cloud Project and Enabling API



Project Setup in Cloud Console

Teachers create a new Google Cloud Project to prepare for AI Agent Search activities in the classroom.



Enabling Custom Search API

Enabling the Google Custom Search JSON API grants programmatic access to Google's search services for students.



API Key Generation and Restrictions

Generating and securing API keys with usage limits and IP restrictions prevents misuse and protects budget.

Creating a Programmable Search Engine and Safety Tips



Configuring Programmable Search Engine

Teachers create a Custom Search Engine with SafeSearch enabled for filtering inappropriate content.

Sharing CSE Credentials

CSE ID and API key are shared with students to enable access to the custom search engine.

Managing Usage and Monitoring

Teachers set daily query limits and monitor API usage to control costs and ensure safe use.

Ensuring a Safe Learning Environment

Safety measures maintain controlled browsing especially when working with live web data in classrooms.

Student Activity



Setting Up the Colab Environment

Library Installation

Installing Python libraries such as google-api-python-client, requests, and BeautifulSoup is essential for API interaction and web scraping.

Importing Libraries and Setting Keys

Students import libraries and insert API key and CSE ID to enable Google Custom Search API usage.

Using Assertions for Validation

Assertions verify correct insertion of keys, preventing runtime errors during code execution.

Building and Testing the Search Agent

Defining Search Function

Students create a helper function to perform search queries and return titles, links, and snippets from API results.

Testing Search Function

Function is tested with sample queries to ensure it returns accurate and relevant search results effectively.

Web Content Summarization

Using BeautifulSoup, students fetch and summarize top search result content for a concise page overview.

WebSearchAgent Class

Students build a class simulating AI behavior: sensing, deciding to search, and performing actions accordingly.

Where Can AI Agents Enhance CTE

CTE Directors & Program Management

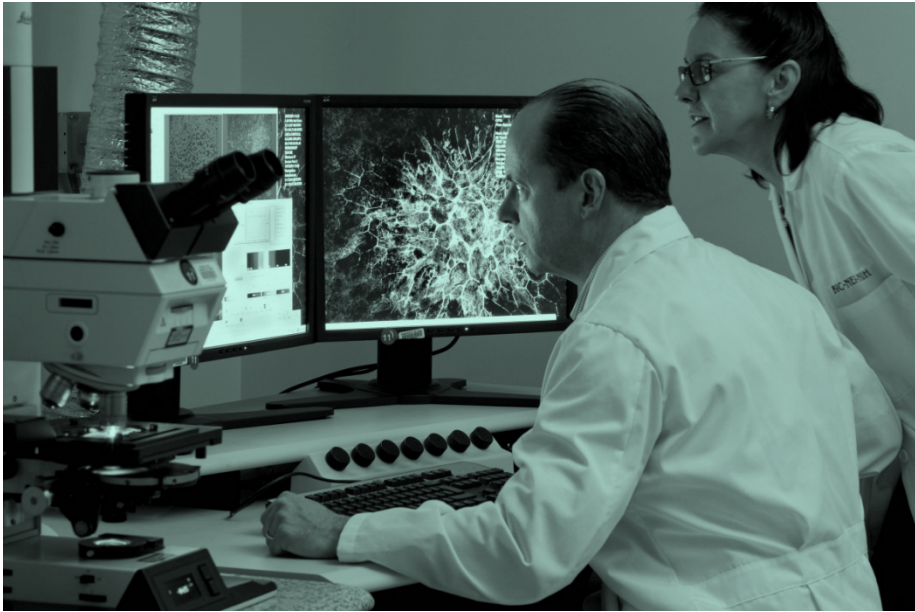
- Thoughts from you!

CTE Instruction

- Thoughts from you!



Perspective



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

*The use of technology will
always be relevant in Career
Technical Education.
AI is a tool within the tech
environment.
Guided use leads to
innovation, understanding,
and workforce preparation.*



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Hour of AI

Code.org is building a new global initiative designed to help students and educators understand AI and learn to create with AI.



CS for ALL Resources



Washington Office of Superintendent of
PUBLIC INSTRUCTION

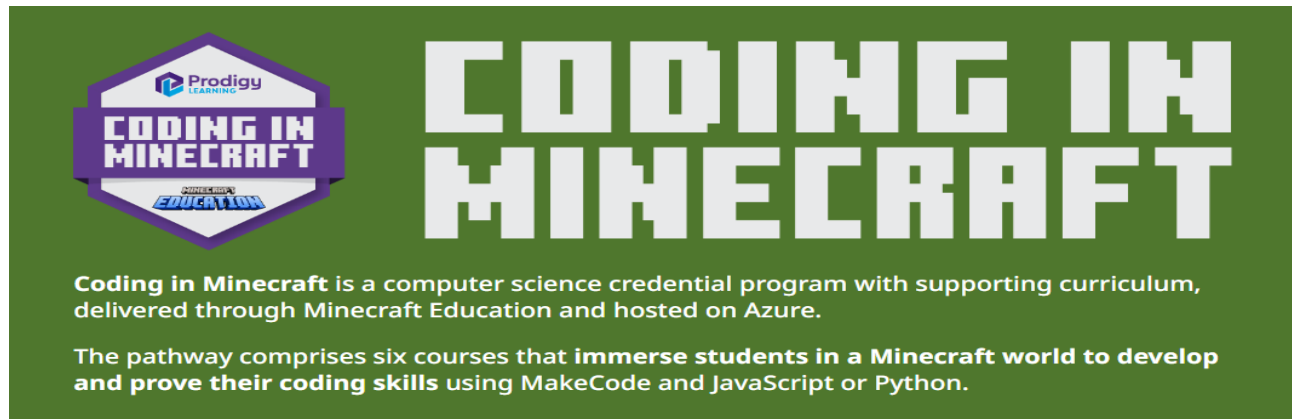
Hour of AI

Coding in Minecraft is part of the Hour of AI initiative during Computer Science Education Week in December.

This year, educators can access an on-demand classroom experience focused on introducing students to responsible AI concepts.

Students will participate in structured activities designed to build foundational understanding of how AI works and its relevance in today's world. The experience is flexible, allowing for engagement in a single hour or across multiple sessions. It includes a dedicated Minecraft Education world that supports exploration of AI topics in an interactive format.

Sign Up [Here!](#)

A green rectangular banner with a purple shield logo on the left. The logo contains the Prodigy Learning logo, the text 'CODING IN MINECRAFT', and 'MINECRAFT EDUCATION'. To the right of the logo, the words 'CODING IN MINECRAFT' are written in large, white, pixelated block letters. Below this, two lines of white text provide details about the program.

CODING IN MINECRAFT is a computer science credential program with supporting curriculum, delivered through Minecraft Education and hosted on Azure.

The pathway comprises six courses that **immerse students in a Minecraft world to develop and prove their coding skills** using MakeCode and JavaScript or Python.

[Get Coding in Minecraft Washington At No Cost](#)

Microsoft Elevate: *Coming to Washington Schools*



Opportunity for every classroom.
Every changemaker.
Every community.

Providing people and organizations with AI skills and tools to thrive in an AI-powered economy.

[Read the blog](#)



Washington Office of Superintendent of
PUBLIC INSTRUCTION



Tell Me What Topics in AI will Help You!

*Conversations &
Demonstrations*

*AI Integration in CTE Programming –
Fill out form*

<https://tinyurl.com/9bd9a9fe>



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Q&A



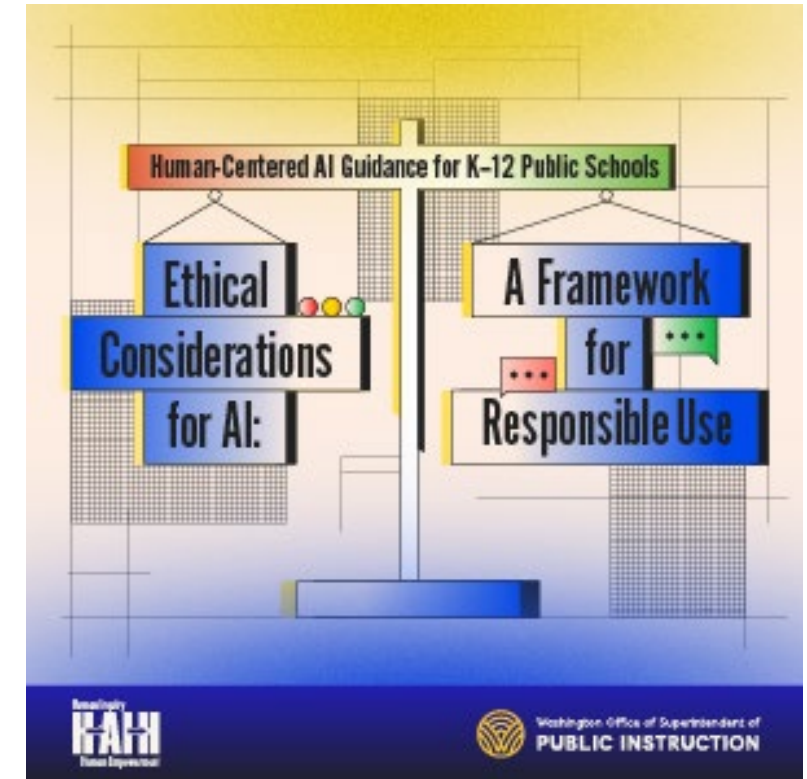
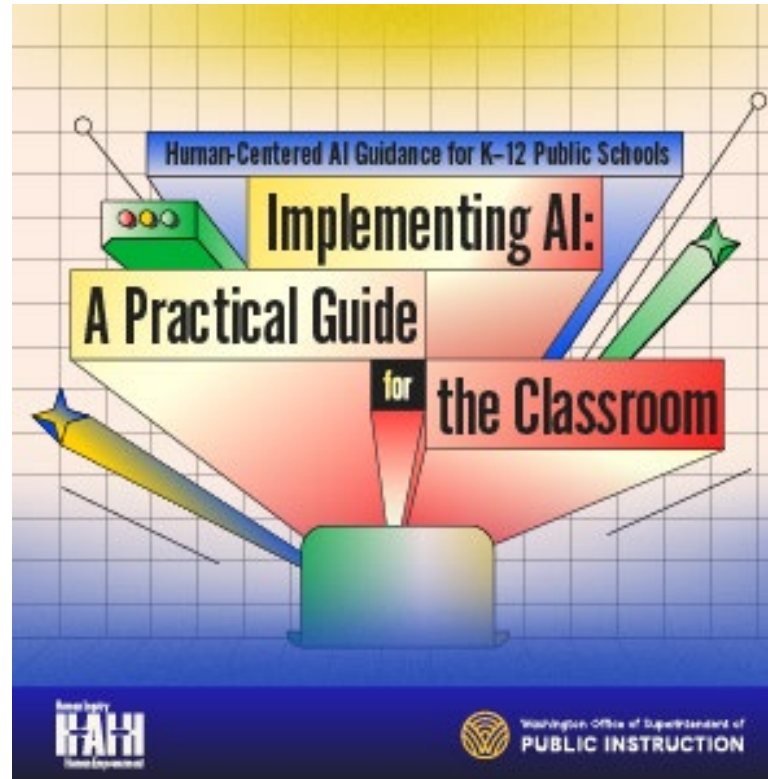
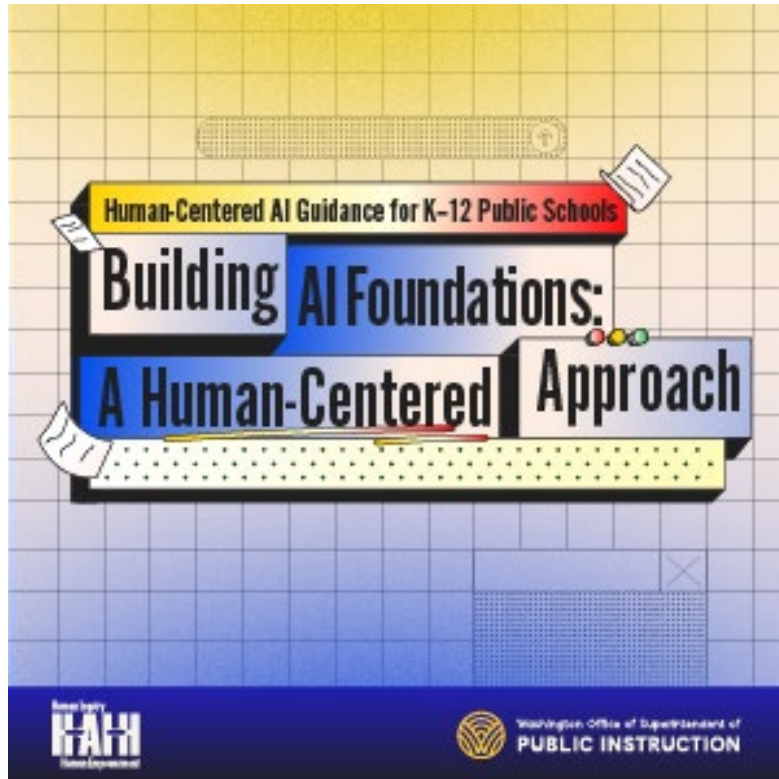
Washington Office of Superintendent of
PUBLIC INSTRUCTION



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Resources, Next Steps, and Ongoing Support

OSPI Guidance



The state's responsibility is to provide students, educators, and school district administrators with the resources and tools they need to understand how to use these technologies effectively, ethically, and safely.

CIP Code 110701 Foundational AI = Social Studies (Future Civics Compliant)



Bonus!

Statewide Equivalencies

Approved:

- *AI Literacy for Civic Engagement* - An introductory computer science and AI literacy course blending theoretical foundations with practical programming applications. Emphasizes digital citizenship, critical thinking, and ethical responsibility. Aligns with CCS Generative AI Foundations, an Industry Recognized Credential.

In Development:

- AI-Enhanced Algebra: Mathematics-First Approach
- Integrating AI with Computer Science Principles



Self Learning



[Artificial Intelligence LinkedIn](#)

[Introduction to Artificial Intelligence Coursera](#)

[Microsoft Learn](#)

[Google AI Essentials](#)

[Generative AI for Business by Alison.com](#)

[WASA Leading District AI Integration](#)

[AESD Professional Learning Opportunities](#)



At No Cost Ready Made & Vetted Accessible Tools



Media Literacy & Digital Citizenship are overlapping content areas that should be integrated into every subject taught in today's classrooms. [Media Literacy & Digital Citizenship](#)

FREE ASYNCHRONOUS COURSE

[Media Literacy & Digital Citizenship Grades 6-12
Resources \(2025–26\)](#)



Washington Office of Superintendent of
PUBLIC INSTRUCTION

medialiteracynow.org| [Resource Library](#)

[PBS News Hour Classroom](#)| [Media Literacy Survival Kit](#)

[ReadWriteThink](#)| [Media Literacy](#)

[REMC](#)| [Toolkit for Media Literacy](#)

[Pulitzer Center](#)| [The News & You](#)

[Cyber.org](#)| [Cyber-Literacy](#)

digitallearn.org (by [Public Library Association](#))

[Google Applied Digital Skills](#)

[Microsoft Educator Network](#)| [Digital Literacy Curriculum](#)

[Common Sense Education](#)| [Digital Citizenship Curriculum](#)

Accessible Tools



Free Tool for Lesson Planning

Colleague AI | AI-Powered Education Platform for K-12 Teaching & Learning

Microsoft Learn| AI Learning Resources| Learning Accelerators

Google Education| AI Essentials

Code.org| AI Foundations Course| Hour of AI

Coding in Minecraft| AI Ready Skills

Girls Who Code| AI Literacy Unit & Challenges

Stanford CRAFT| AI Literacy Resources

MBA Research & Curriculum| AI Resources for the Classroom

IBM SkillsBuild| Skills-BASED Learning From Technology Experts

aiEDU| The AI Education Project

TeachAI.org

raise.mit.edu| Responsible AI for Social Empowerment & Education

Cyber.org

Washington OER



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Credentials in AI and Digital Literacy

Critical Career Skills: The Generative AI Foundations exam provides a solid grounding in generative AI, enhancing their ability to adapt in a tech-driven job market, and gives them a competitive edge with employers

ITS – Artificial Intelligence: Candidates for this exam are AI enabled learners and are prepared for the professional use of AI by understanding how AI can be used to solve problems

Asure Fundamentals (AI-900): Candidates for this exam should have foundational knowledge of machine learning (ML) and artificial intelligence (AI) concepts and related Microsoft Azure services



Bob Imhoff

Certiport/Pearson

Regional Manager K -12

Direct Line: 801-847-3166

robert.imhoff@pearson.com



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Additional Resources

- CTE Website
- CTE Staff Contacts
- Future of Computer Science Education in Age of AI
<https://www.teachai.org/cs>
- Overcoming “workslop” is all about finding your own voice
- List of Washington Industry Recognized Credentials
- 10 Free Certifications for High School Students
- MBA Research & Curriculum Center
- Coding in Minecraft (K-8 program legislatively funded)



***Next
Meeting:***

December 3, 2025

3:30 – 4:30 pm
Clock Hour Offered!

10 Year Washington CTE
Study: *Sam Riggs &
Camila Kennedy* from
Education Northwest

***Contact
Us:***

cte@k12.wa.us
360-275-6245



Washington Office of Superintendent of
PUBLIC INSTRUCTION

For a copy of this presentation, please access the OSPI Website, <https://ospik12.wa.us/student-success/career-technical-education-cte>



Washington Office of Superintendent of
PUBLIC INSTRUCTION

Contact Us

All Most things CTE

Holli Ryan-Kalaleh
CTE Program Supervisor
holli.ryan-kalaleh@k12.wa.us

CTE General Inbox

CTE@k12.wa.us