



The AI Creative Edge

Connecting AI, Coding & The Future of Work

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VIBE

AGENTS

RESEARCH

VIDEO

PROTOTYPE

MORE...

My Perspective...

- Michael Mino, AI Education Specialist, Makerspace Teacher/Director, Consultant
- Over 40 years of K–16 CTE and Ed-Tech experience in public & private education as a teacher, specialist, & consultant
- From early PCs to today's AI-powered tools and robots
- My goal for today: Inform and Inspire...



45
YEARS

ILLUSTRATED TIMELINE OF MAJOR COMPUTER DEVELOPMENTS

45 YEARS OF TECHNOLOGICAL EVOLUTION

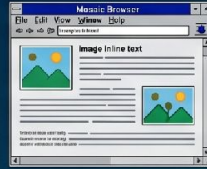


1981:
THE BIRTH OF THE
PC STANDARD

IBM PC & MS-DOS:
A standardized
hardware/software platform.



1990:
THE WEB PROPOSAL
& WINDOWS 3.0



1993:
MOZILLA
BROWSER



1995:
WINDOWS 95 &
INTERNET EXPLORER
The Internet Mainstreamed



1998:
GOOGLE
SEARCH



2004:
FACEBOOK
& WEB 2.0



2025:
UBIQUITOUS AI AGENTS
Seamless intelligence across a full
ecosystem. Enhanced reasoning,
memory, and proactive actions.

1980

EARLY INTERNET

THE POST-PC ERA

2007:
MOBILE REVOLUTION BEGINS



2007:
MOBILE
REVOLUTION BEGINS

2010:
IPAD &
INSTAGRAM



2010:
IPAD &
INSTAGRAM

2016:
AlphaGo GO



2016: AlphaGo
& POKÉMON GO

2017 - 2024:
THE AI AWAKENING
& CHAT GPT-4



2017:
TRANSFORMER
ARCHITECTURE

2022:
ChatGPT
(GPT-3.5)



2022:
ChatGPT
(GPT-3.5)



2024:
GPT-4o (OMNI)
EMERGENCE

ERA OF UBIQUITOUS
Beyond Multimodality
to Integrated Agency.

FROM TOOLS THAT FOLLOW INSTRUCTIONS TO AI THAT UNDERSTANDS INTENT

Old Tech vs. LLM AI

 FEATURE	 OLD TECH: CALCULATOR ERA	 LLM AI: BRAIN ERA
1 HOW IT WORKS	 Follows rules written by humans	 Learns patterns from massive amounts of data
2 RESPONSE STYLE	 Fixed and predictable	 Flexible, creative, and adaptive
3 UNDERSTANDING	 Literal; depends on exact commands or keywords	 Contextual; understands meaning, tone, and intent
4 PROBLEM SOLVING	 Designed for one specific task	 Can handle many types of tasks across subjects
5 INTERACTION	 Uses menus, buttons, and commands	 Uses natural conversation
6 ROLE	 Passive tool waiting for instructions	 Active assistant that can plan, generate, and complete tasks

What is the Creative Edge?

The AI Creative Edge is a framework for preparing students for the jobs of tomorrow

- Through the use of cutting-edge AI experimental apps, platforms, tools etc.
- Tools are not yet mainstream but freely available for creative play and experimentation.
- Teachers and students learn AI together with AI, from AI and from each other.



**Creative
Edge**

The Future of Work

**AI is changing the
tasks and workflows
including in trades
and services.**

Why this matters in CTE

Students will not just use AI tools. They will work with AI to research, design, build communicate, critique, guide and revise.

- CTE classrooms are ideal places to teach AI in the context of authentic tasks and workflows.
- The key skill is not prompting; it is guiding, checking, critiquing, revising, and improving and collaborating.
- Today's tools let learners move from asking for output to setting goals, building processes and prototypes.

A large red circle graphic containing the text "CTE + AI".

CTE + AI

**Physical-to-Digital
Bridge**

AI belongs in
hands-on pathways:
media, business,
design, health,
STEM, and trades.

DEFINITION

What is vibe coding?

Vibe coding = building by describing, steering, and refining.

- Use natural language to describe what you want to build or improve.
 - Let AI generate a first draft, workflow, or prototype.
 - Test it, revise the prompt, and iterate until it works for the audience and purpose.
-

Educator Framing: Students still need judgment. The value is in the back and forth, the collaboration, the revision, and the quality check.



VC

Describe + Refine

A practical entry point for prototyping with AI before traditional coding or advanced automation.

DEFINITION

What are AI agents?

An AI system that works toward a goal through multiple steps using skills and tools.

- A single prompt asks AI to do one thing now.
- An agent can plan, use skills, tools or information, make choices, and continue the task.
- For students, agentic thinking means designing a workflow, not just getting an answer.

Simple comparison: Prompt: “Summarize this.”

Agent: “Read these sources, pull key ideas, draft a summary, and revise it for ninth graders.”



Agents

Claude Co-Work

Useful mental model:
a prompt gives AI a task;
an agent gives AI a role and a process.

DEFINITION

Model Context Protocol or MCP

Universal bridge to connect AI to external tools.

- Resources: Read-only data used to give the AI context e.g. reading a local text file, accessing a wiki, or looking up a stock price.
- Tools: Executable functions that allow the AI to take action (e.g., making an API call, or sending a message).
- Prompts: Reusable workflow templates designed to trigger specific, repeated LLM-server interactions.*

Simple comparison: Think of MCP as the "USB-C port for AI." Just like a standard USB-C cable, MCP provides a standard way for AI to plug into your databases, code & apps.



MCP

@ Classroom

Gemini MCP for Google Classroom allows you to automate repetitive classroom tasks in Gemini chat mode.

DEMO

Gemini Canvas — multimodal

Why it matters

- Shows AI as a collaborator for planning, drafting, revising, and reformatting.
- Makes iteration visible: students can improve tone, length, structure, and clarity in context.

Demo

- Start from a rough idea and turn it into a cleaner outline, report, slide deck, or app concept.
- Highlight a section and ask for a revision so the audience sees AI as an editor, not just a generator.



Gemini Canvas

A tool inside Gemini for drafting, editing, and turning rough ideas into finished outputs such as apps, games, simulations & more.

DEMO

Google NotebookLM - research & multimedia study support

Why it matters

- Turns readings, notes, and documents into a source-grounded multimedia learning partner.
- Useful for summarizing, questioning, reviewing, visualizing, and building multimedia presentations from class materials.

Demo

- Upload or open a source set, ask a focused question, and show how citations keep the answer tied to the material.
- Generate a quick study guide, FAQ, or “teach this to a beginner” explanation.



NotebookLM

Grounded in your source materials so the conversation starts from your documents and notes. Studio mode lets you create a variety of media.

Google Vids — AI video Platform

Why it matters

- Shows a practical classroom-to-workforce use case: explainers, pitches, onboarding, and project updates.
- Helps students connect script, storyboard, visuals, and voice into one communication product.

Demo

- Start a video from a prompt or outline, then point out the storyboard, script, voiceover, or editing aids.
- Connect the demo to how students might present a process, product, or reflection.



Google Vids

An AI-powered Workspace tool for making polished video communication easier to create and share, using your own or AI generated content.

DEMO

Opal — from Prompts to Apps

Why it matters

- Bridges the gap between one-off prompts and reusable workflows.
- Helps educators explain how AI can support a process, not just produce a response.

Demo

- Open an example mini-app and trace the flow from input to output.
- Describe a classroom task and show how a simple AI workflow could make the task repeatable.



Google Opal

A no-code experiment for building, editing, and sharing AI mini-apps with natural language. Useful for capstone projects, entrepreneurship.

DEMO

Google AI Studio

Why it matters

- Describe an idea, iterating, and turn it into a working prototype.
- Reinforces that AI literacy is increasingly about systems, modalities, and product thinking.

Demo

- Start with a plain-language idea or goal then refine toward a more useful prototype.
- AI Studio supports experimentation across text, image, audio, and video models in one place.



AI Studio

AI Studio

Capstone demo:
move from
describing an idea
to testing prompts
and prototyping an
AI-first app.

DEMO

Google FX / Labs — creative AI experiments for media and more

Why it matters

- Expands the audience view of AI beyond text and chat into multimodal creativity.
- Connects especially well to design, communications, digital media, and storytelling pathways.

Demo

- Tour the hub and briefly name the kinds of creative tools available such as Genie, Flow, Whisk, or MusicFX.
- Emphasize experimentation: students can explore ideas fast, then reflect on quality, ethics, and audience.



FX Labs

Google FX Labs

A creative hub for trying multimodal AI experiences across image, music, video, and world-building. Great for creative exploration, concept development, and showing the breadth of emerging AI tools.

DEMO

OpenAI Codex — AI assisted Coding and generating for development...

Why it matters

- Expands the audience view of AI beyond text and chat into multimodal creativity.
- Connects especially well to design, communications, digital media, and storytelling pathways.

Demo

- Show how Codex can generate, explain, revise, a simple script, an app, or a workflow from a prompt.
- Emphasize iteration: students can test ideas quickly, then reflect on accuracy, ethics, documentation and audience.



Codex

AI coding assistant that helps users plan, write, explain and improve code for prototyping, de- bugging, and learning concepts across languages and platforms.

DEMO

Claude Code — AI assisted Coding and Artifact generation for learning...

Why it matters

- Expands the audience view of AI beyond text and chat into multimodal creativity.
- Connects especially well to design, communications, digital media, and storytelling pathways.

Demo

- Show how Claude Code can generate, explain, revise, a script, an app, a work flow from a prompt.
- Emphasize iteration: students can test ideas quickly, then reflect on accuracy, ethics, documentation and audience.



Claude

Claude Code

An AI coding assistant that helps users plan, write, explain and improve code. Great for prototyping, debugging, documentation and learning programming concepts across languages and platforms.

Prepare students to shape the future of work... not just adapt to it!

Three takeaways for educators

- Teach AI as a partner for learning, thinking and creating, not as a shortcut to answers.
 - Give students practice building, critiquing, directing, checking, and improving AI outputs.
 - Start small: choose one tool, one task, and one shop or classroom project to try next.
-

Challenge to leave with

What is one assignment, workflow, or student product that would become more powerful if AI helped with the first draft or the next revision?





QUESTIONS? COMMENTS? DISCUSSION?
Contact JFY to Schedule a Consultation!



Info@JFYnet.org

SCAN
ME!



**Schedule a
FREE consult.**



617-657-4485

Thank You!

