

# Introduction to AI: Unlocking Efficiency at Work



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# Introductions

Kelly Johnson, Speaker

- *Technology Integration Coordinator, TOSA,  
Glen Ellyn School District 41*



Name: Ryan Berry, Moderator

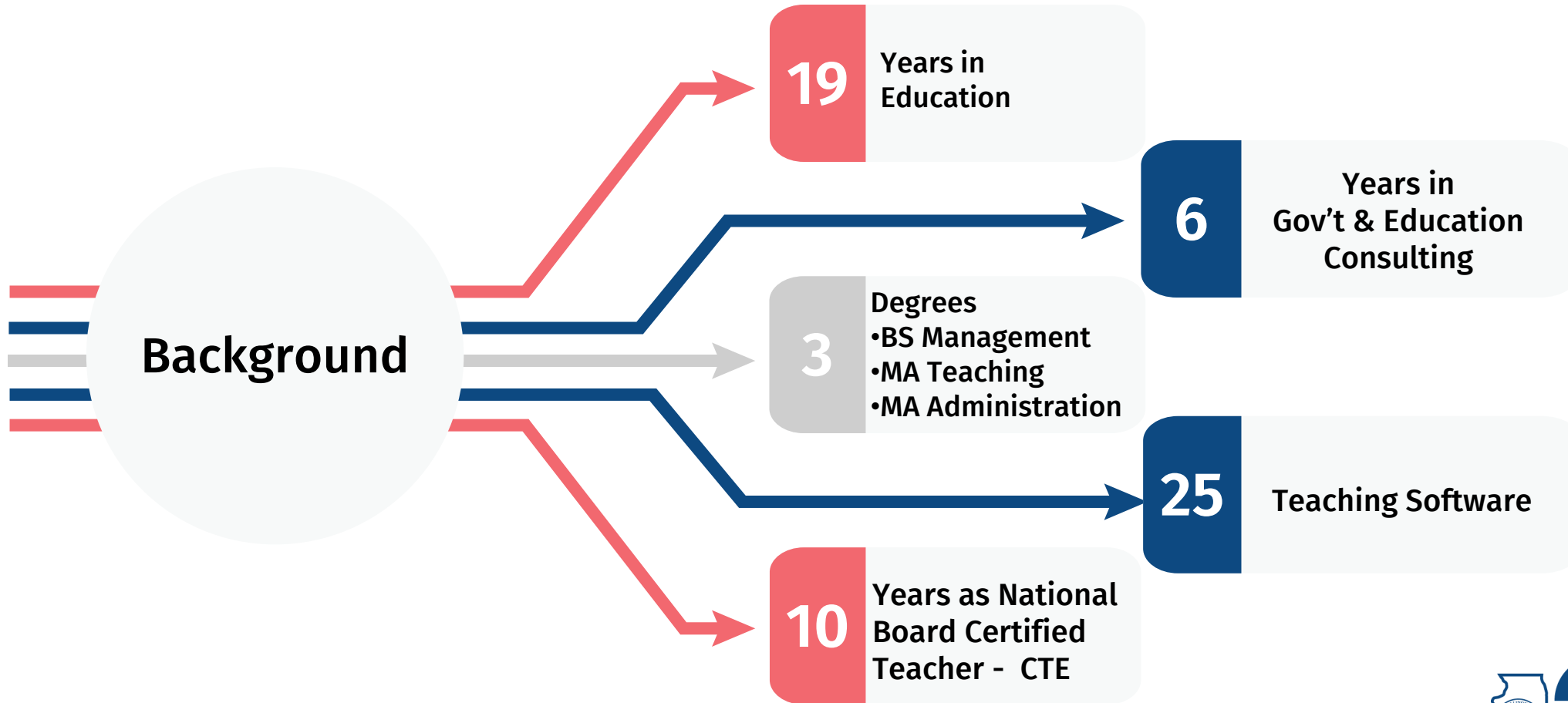
- *Chief School Business Official, Skokie SD 68*



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# Agenda

What is Artificial Intelligence?

Prompting

Privacy & Safety



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# Reacting to AI (Where are you?)



Terrified



Not freaking out, but not sure either

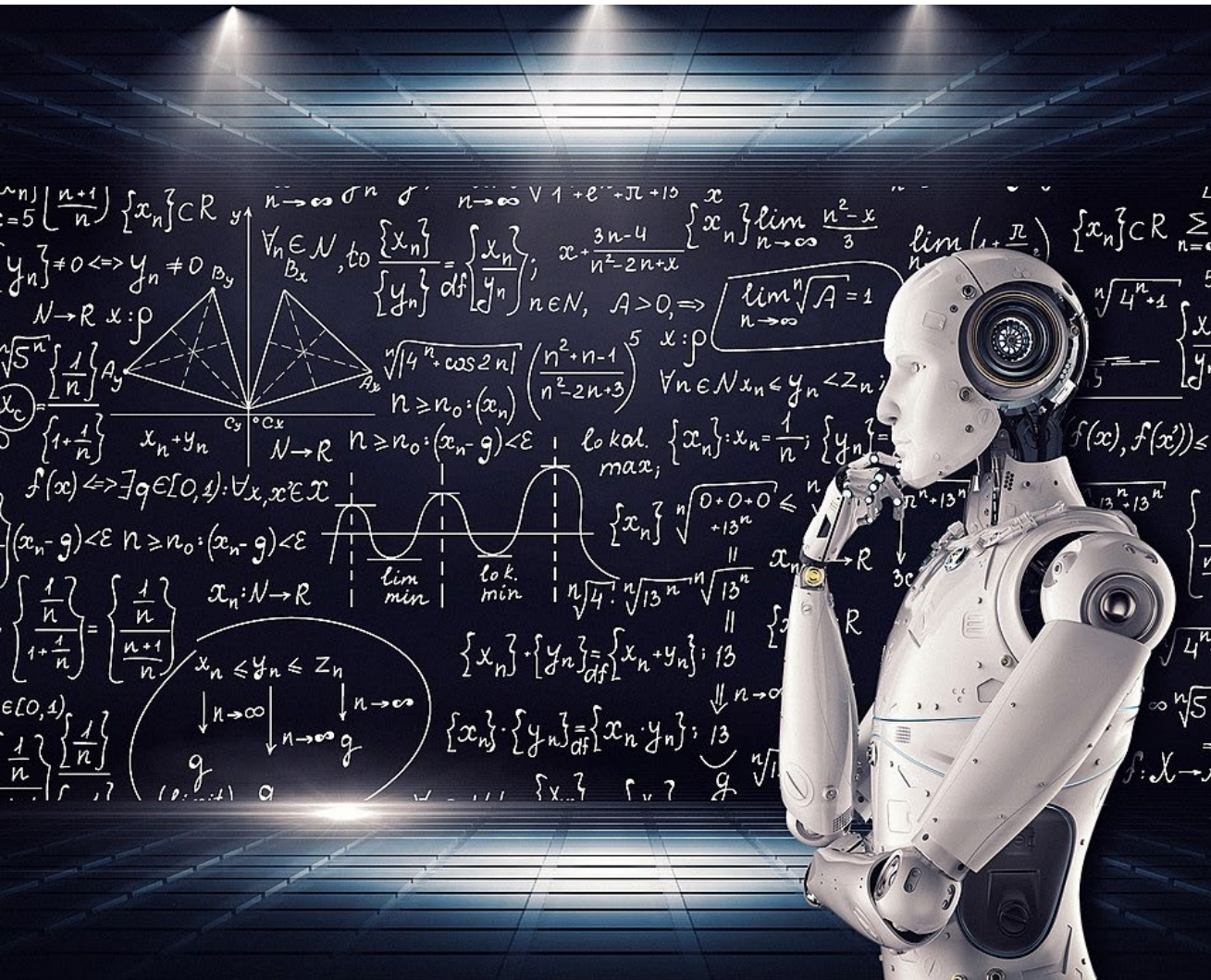


I have lots of questions before I begin



Excited to try it

# What is AI?



Artificial intelligence leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind.

# Past Fear

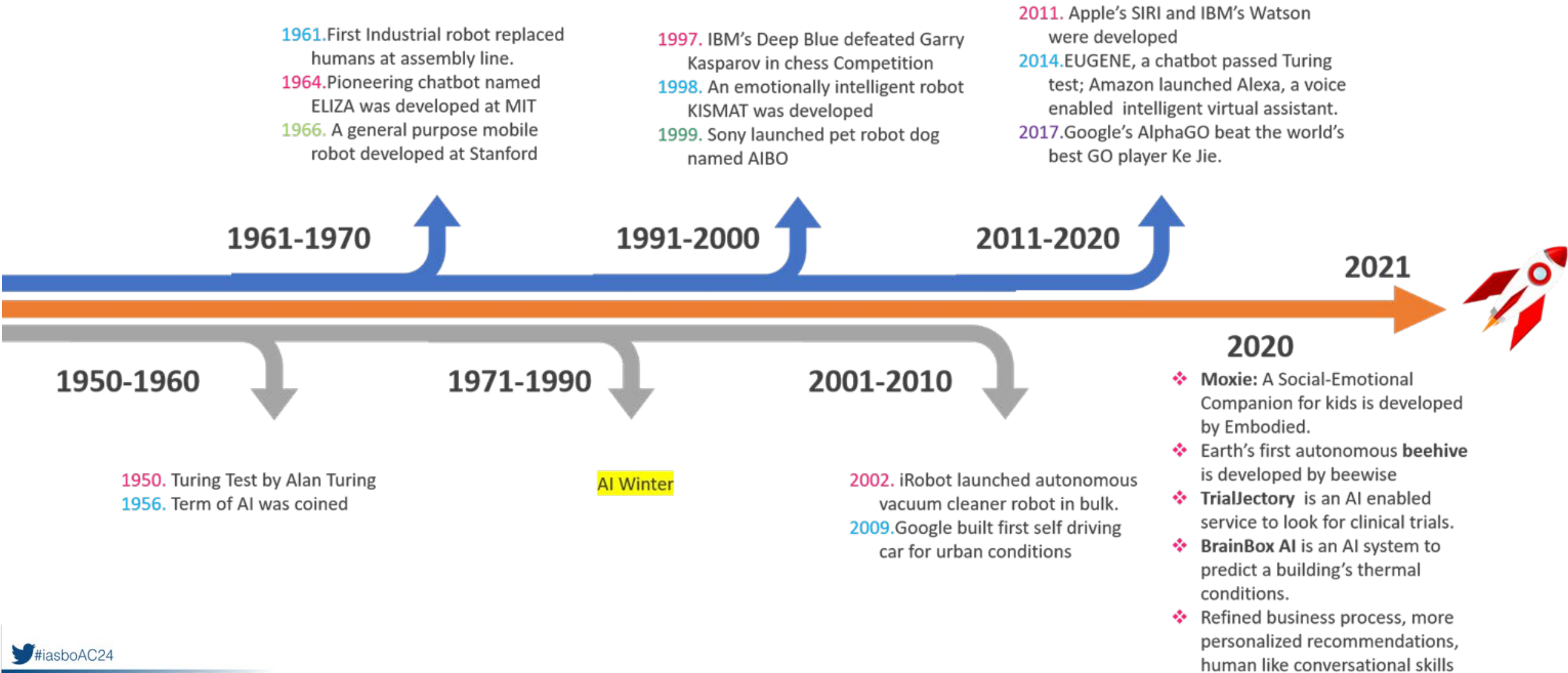


Google

🔍 Search Google or type a URL



# AI Timeline





# Anyone use these?



# 3 Types of AI



## Reactive

Tools that respond to specific inputs or situations without learning from past experiences (e.g. Alexa, Roomba, chess-playing computer).



## Predictive

Tools that analyze historical data and experiences to predict future events or behaviors (e.g. Netflix, credit-scoring systems).



## Generative

Tools that generate new content or outputs, often creating something novel from learned patterns (e.g. ChatGPT, Stable Diffusion).



**30<sup>TH</sup>  
NOVEMBER  
2022**

THE DAY THE WORLD CHANGED

**ChatGPT Launched**

# ChatGPT

Chat

A “chatbot”

Generative

that responds with content

Pre-trained

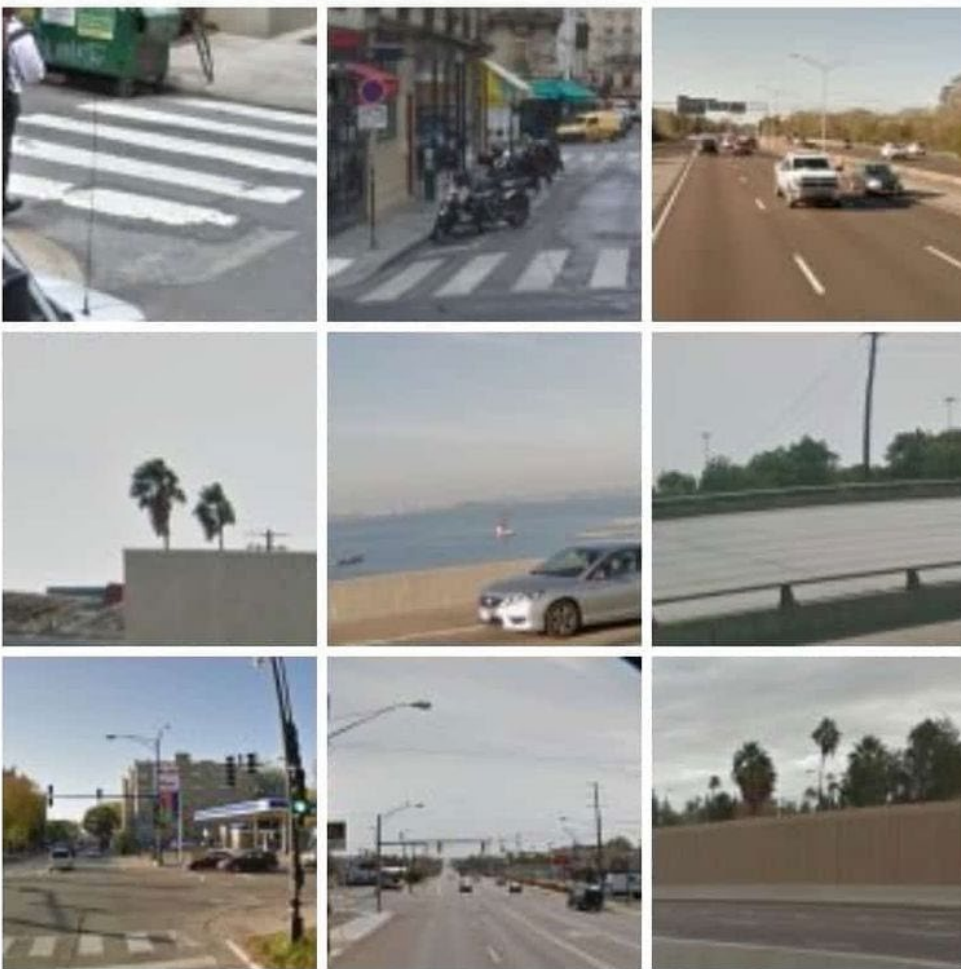
from the data from which it learned

Transformer

in a format different from the original sources.

Select all images with  
**crosswalks**

Click verify once there are none left.



only

emanates

Type the two words:



VERIFY

# AI Training



Imagine a box of Legos...

Each Lego represents a small piece of information that the computer has learned from studying a bunch of examples...



Give it a prompt like "create a tree," and it starts piecing together the Legos to make an example of what it has previously learned about trees.



It keeps trying different combinations until it comes up with something that looks like what it has learned about a "tree."



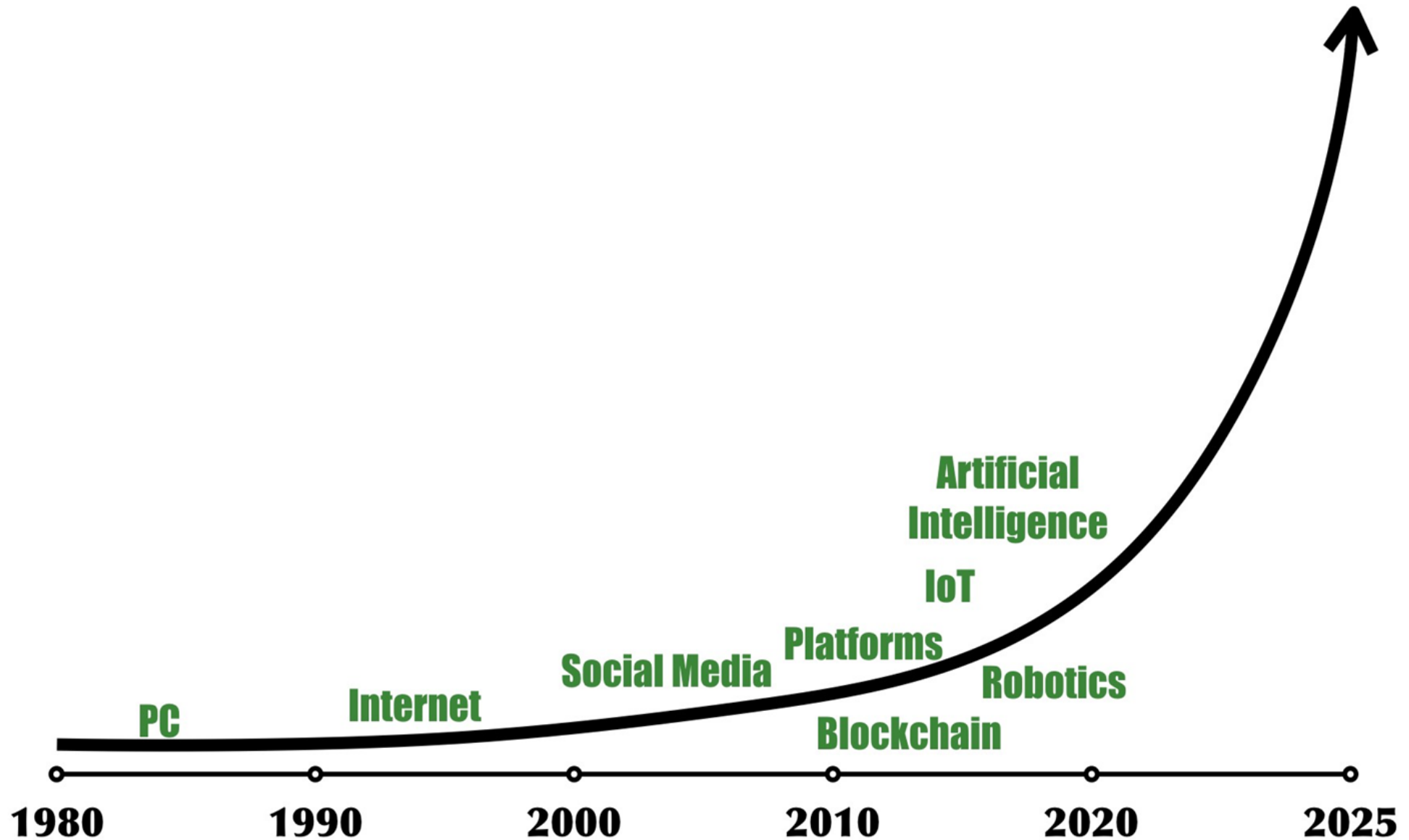
# Commodore 64 of AI



Matt Miller wrote "This version of ChatGPT is the weakest, most rudimentary artificial intelligence of its kind our students will ever use."

Holly Clark called it the "Commodore 64 of AI" -- a technology that was revolutionary at the time but is now seen as antiquated and obsolete." ([source](#))

# Exponential Growth of Technology



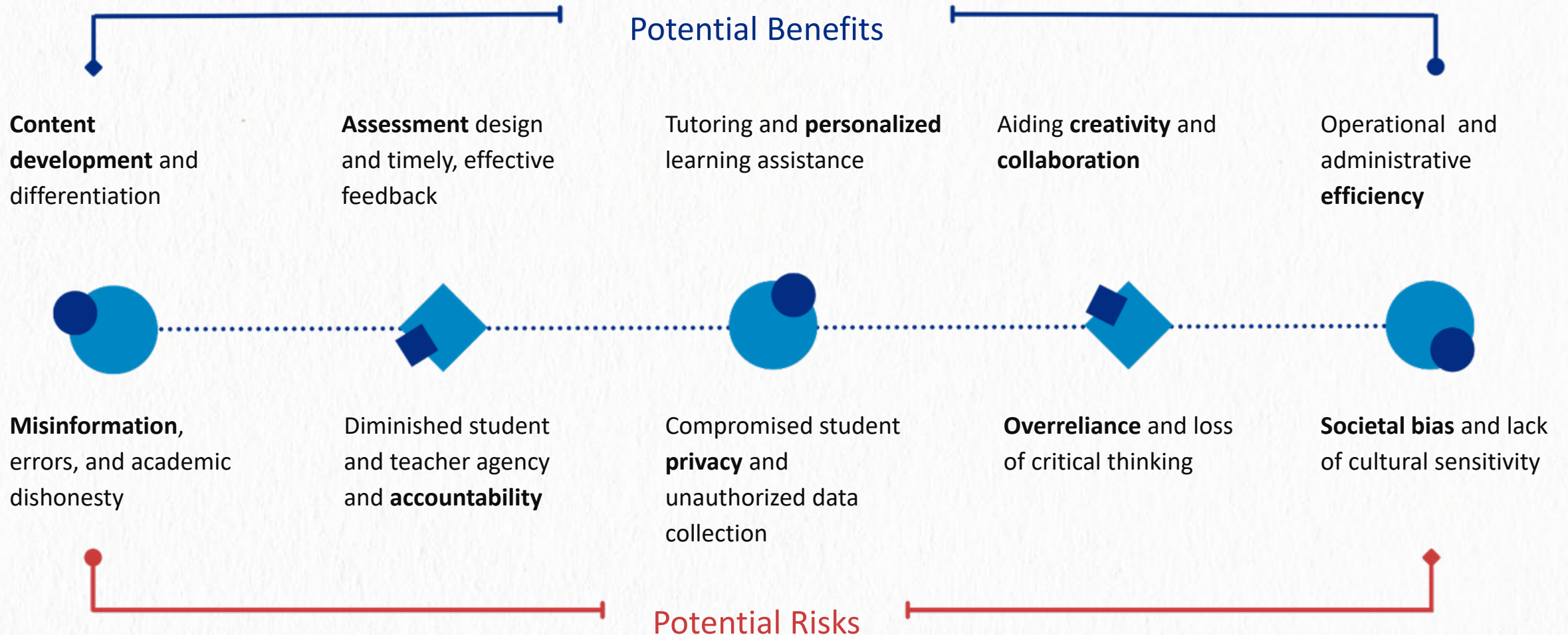


# Generative AI Chatbots

Deep-learning models that can generate high-quality text, images, and other content based on the data they were trained on.



# Potential Benefits & Risks of Using AI in Education

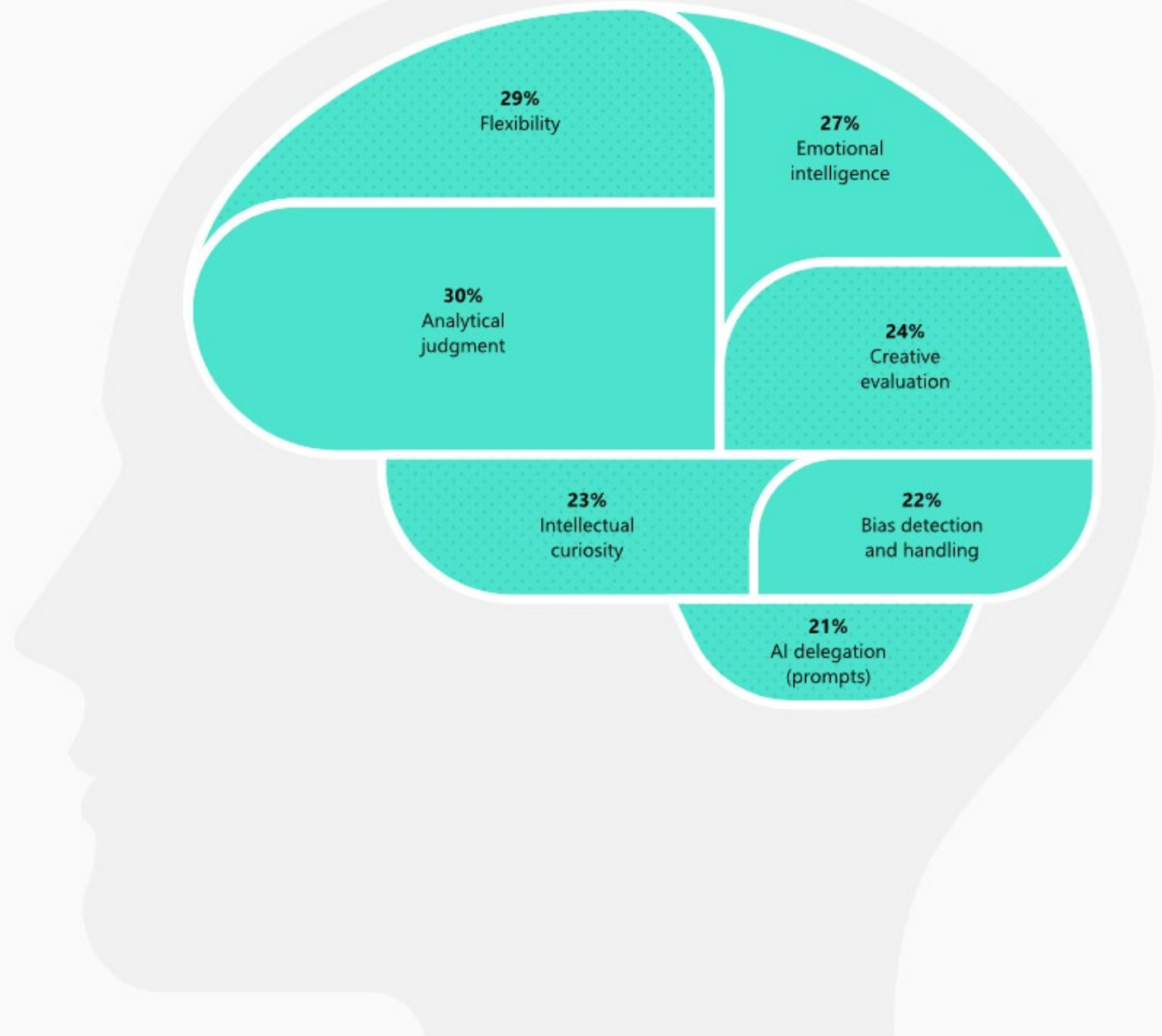


# Every teacher now has an assistant!

## [Ditch That Textbook](#)

 <p>Use AI as a deeper source of information than Google.</p>	 <p>Use AI for lots of good examples.</p>	 <p>Use AI to remix student work.</p>	 <p>Add AI to the "think pair share" thinking routine.</p>	 <p>Grade the AI.</p>	 <p>Debate the AI.</p>
 <p>Use AI for insight into big, difficult-to-solve problems.</p>	 <p>Ask AI for advice.</p>	 <p>Anticipate the response you'd expect from AI.</p>	 <p>Take several AI responses and make a better product.</p>	 <p>Use AI to create personalized learning experiences.</p>	 <p>Use AI to facilitate group work.</p>
 <p>Provide a unique perspective with AI.</p>	 <p>Use AI to apply learning in unforgettable ways.</p>	 <p>Empower students to make a difference in the world.</p>	 <p>Help persuasive writing with AI.</p>	 <p>Use AI to improve vocabulary.</p>	 <p>Ask AI for definitions on a variety of levels.</p>
 <p>Ask AI for text in a variety of voices.</p>	 <p>Ask AI for student work feedback.</p>	 <p>Ask AI to do some teacher tasks for you.</p>	 <p>Create review content, questions, and activities with AI.</p>	 <p>Write report card comments and parent emails with AI help.</p>	 <p>Use AI to summarize texts.</p>
 <p>Use AI to create leveled text sets.</p>	 <p>Generate prompts and questions with AI to facilitate discussions.</p>	 <p>Use AI as a virtual lab.</p>	 <p>Create presentation slides with AI.</p>	 <p>Write content for individualized educational plans (IEPs) with AI.</p>	 <p>Use AI to help write letters of recommendation.</p>

**“82% of leaders say their employees will need new skills to be prepared for the growth of AI.”**  
**[\(Will AI Fix Work?\)](#)**



# AI's Impact on Productivity, Creativity & Time.

[Article](#)  
[What Can Copilot's Earliest Users Teach Us About Generative AI at Work?](#)

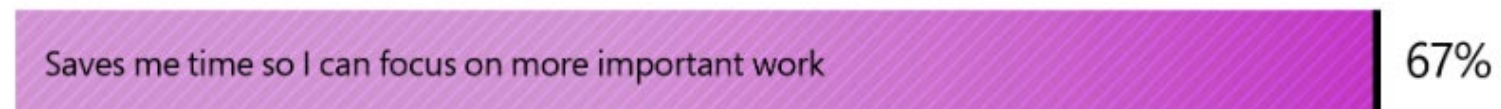
## Productivity and speed



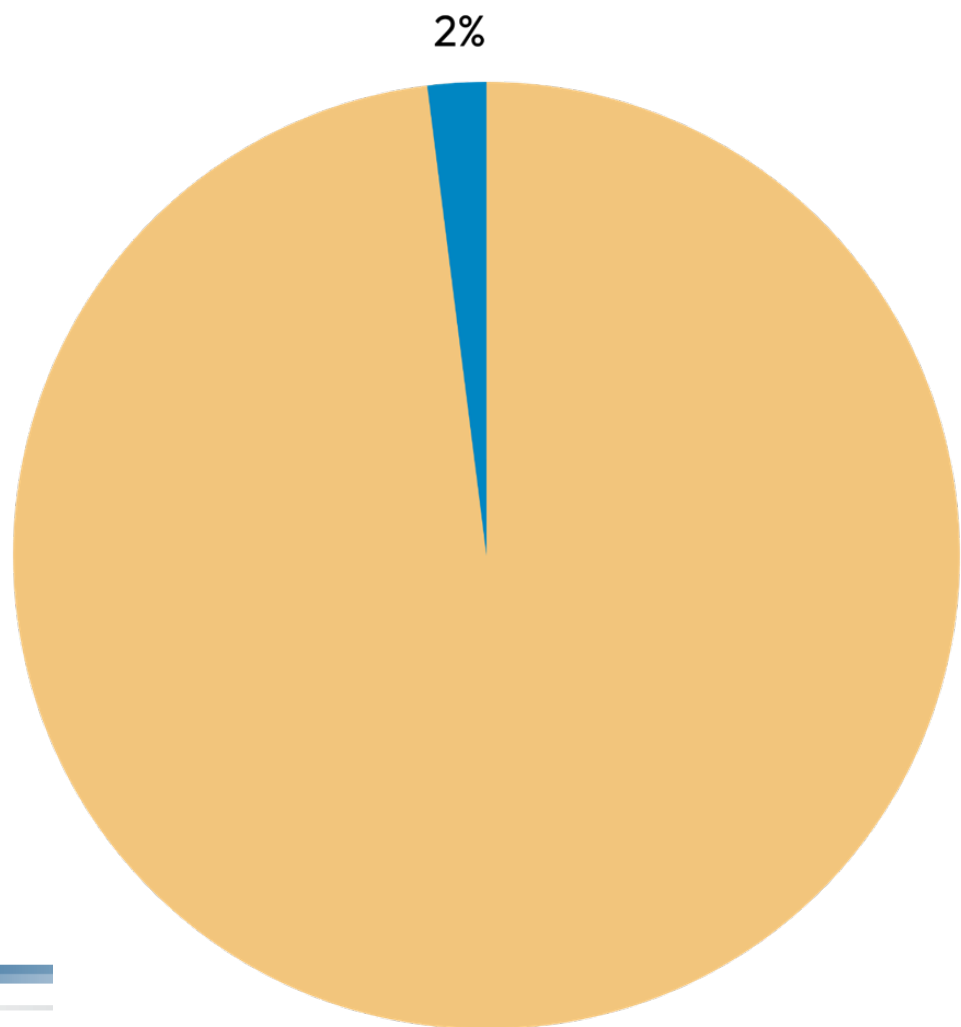
## Quality and creativity



## Focus time



## States Lack Formalized AI Initiatives



Only 2% of state edtech leaders say their state has an AI initiative.

## Few US States Provide Guidance on AI (Sept 2023)

2	Provides Guidance	CA, OR
11	Developing Guidance	AZ, CT, ME, MS, NE, NY, OH, PA, VA, VT, WA
21	No Guidance... Yet	AK, CO, DE, IA, IL, KS, KY, LA, MI, MT, NC, ND, NE, NH, NM, OK, OR, SC, UT, WI, WY
17	No Response	AL, AR, DC, FL, GA, HI, ID, IN, MA, MD, MI, MN, RI, SD, TN, TX, WV

## New state AI policies released: Signs point to inconsistency and fragmentation

Current Research, Innovation and the Future of Learning | March 2024



In October 2023, [CRPE reported](#) that only California and Oregon had provided schools with guidance on navigating AI, while 13 other states planned to release similar guidance. Since then, three additional states have weighed in: [North Carolina](#), [West Virginia](#), and [Washington](#). [Virginia's](#) governor also released an executive order for "AI integration throughout education" that directs its state agencies to lead AI integration efforts in schools and classrooms. Some state legislatures are also proposing new laws: [Kentucky](#) would require its Department of Education to develop AI guidelines by July and mandate training next year; [Tennessee](#) would require districts to create their own AI policies by Fall 2024 in partnership with higher education organizations.

Source: [CRPE](#)

Source: [CRPE](#)

# Prompting

- A prompt is a set of instructions or a question given to a chatbot to generate a specific response or output.

## Reminders

- Chatbots will continue to learn as more data becomes available
  - All prompts or data inputs become part of it's learning
    - Proprietary data has been lost due to this through human mistakes



# Generative AI for Education

## Education Specific AI Tools (Filtered Prompts)



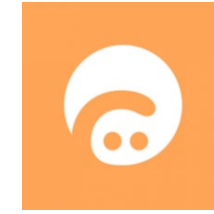
[MagicSchool](#)



[Eduaide](#)



[SchoolAI](#)



[Curipod](#)



[Diffit](#)

## Chatbots



[ChatGPT](#)



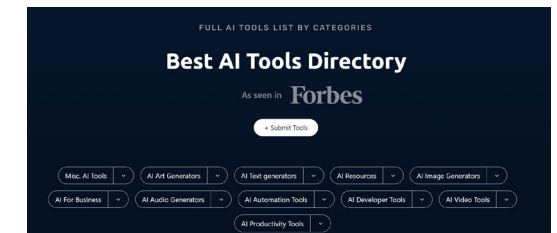
[Google Gemini](#)



[Microsoft CoPilot](#)



[Claude](#)



[insidr.ai Tools Directory](#)

# Filtered Prompts



## Class Newsletter

Generate a newsletter to send to families weekly.

### Important Announcements:

IAR testing this week, get a good nights sleep  
Charge Chromebooks every night  
Do you have any special talents? If so, share them with your friends and family by being a part of the Forest Glen talent show. More information will be coming in the next few weeks but start thinking about what you might want to share.

### Celebrations from the week:

Taco Tuesday is back!!!

### Additional Content (Optional):

One school, one book has started as we all read the book "A Rover's Story"

Generate

## Class Newsletter

Edit Prompt ▼

### Family Newsletter

#### Important Announcements:

- This week, students will be participating in IAR testing. Please make sure they get a good night's sleep each night to be well-rested and ready for the assessments.
- Remember to charge Chromebooks every night to ensure they are ready for use at school.

#### Upcoming Event:

- Are you hiding a special talent? Share it with your friends and family by joining the Forest Glen talent show! Keep an eye out for more details in the upcoming weeks, and start thinking about what you'd like to showcase.

#### Celebrations:

- Taco Tuesday is back! Join us in celebrating this tasty tradition.

#### Additional Information:

- Our "One School, One Book" program has begun, and we are all reading "A Rover's Story" by Jasmine Warga. Each week, students will read a portion of the book, participate in fun trivia questions, and can share their curiosities by placing questions in the "I wonder" box in the Library Media Center (LMC).

## The 6-Step Prompt Checklist

- [task]** Clearly define your end goal
- [context]** Tailor your responses
- [examples]** Mimic style, structure, tone
- [persona]** Embody a specific expertise
- [format]** Bullet points, markdown, table
- [tone]** Add layer of emotional context

More important



Less important

# Prompt Example

Write a job description for a Business Manager for a public school district.

[task]

[context]

# Prompt Example

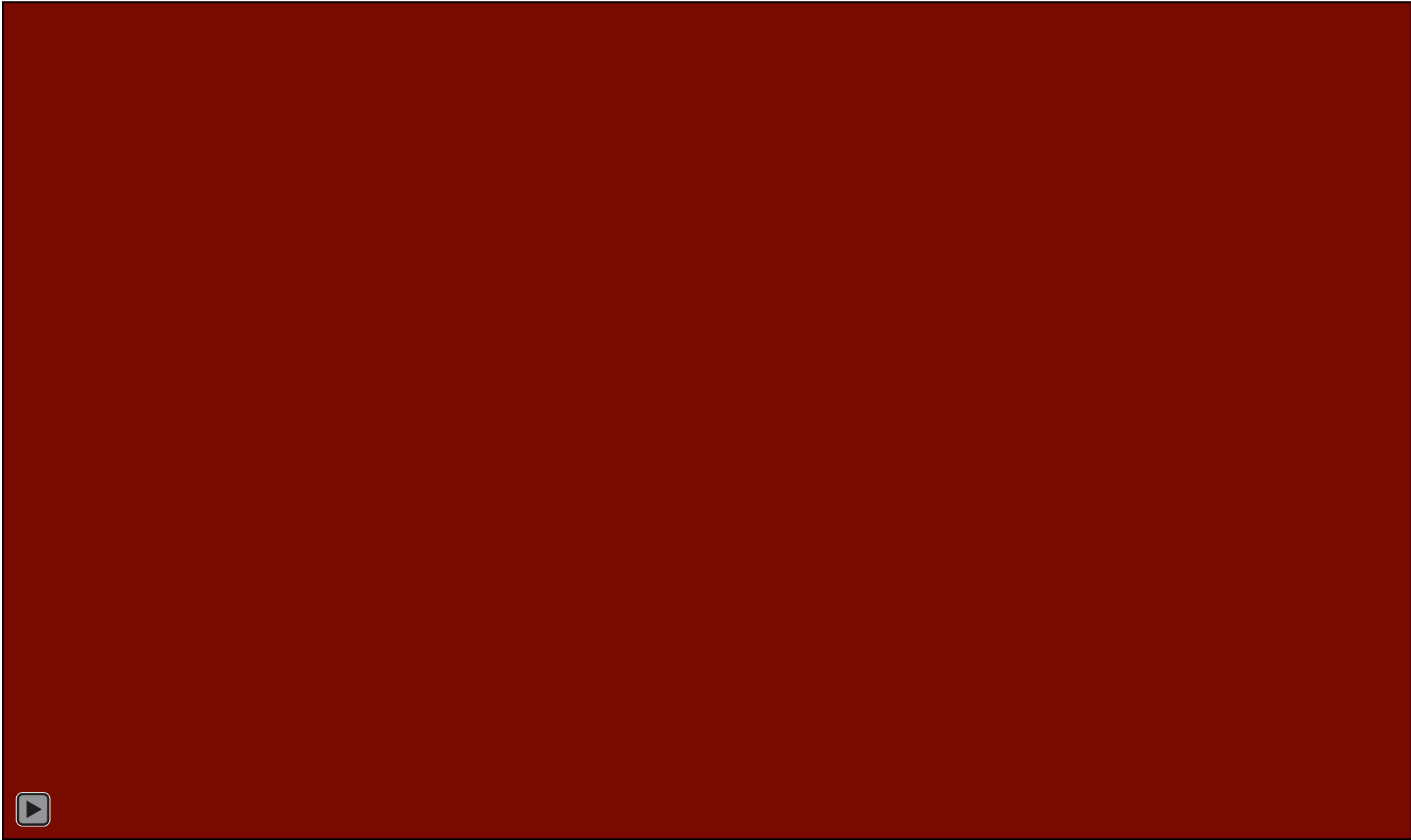
You are the Assistant Superintendent for Finance, Facilities, and Operations. Write a job description for a Business Manager for a public school district. Write the description in a professional tone.

[task]

[context]

[persona]

[tone]





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[Job Description PDF](#)

# Prompt Example

You are the Assistant Superintendent for Finance, Facilities, and Operations. Write a job description for a Business Manager for a public school district. Write the description in a professional tone. Use this existing job description as an example format and style: [paste example]

## Follow-up Prompt

Write 10 interview questions based on the job description.

[task]

[context]

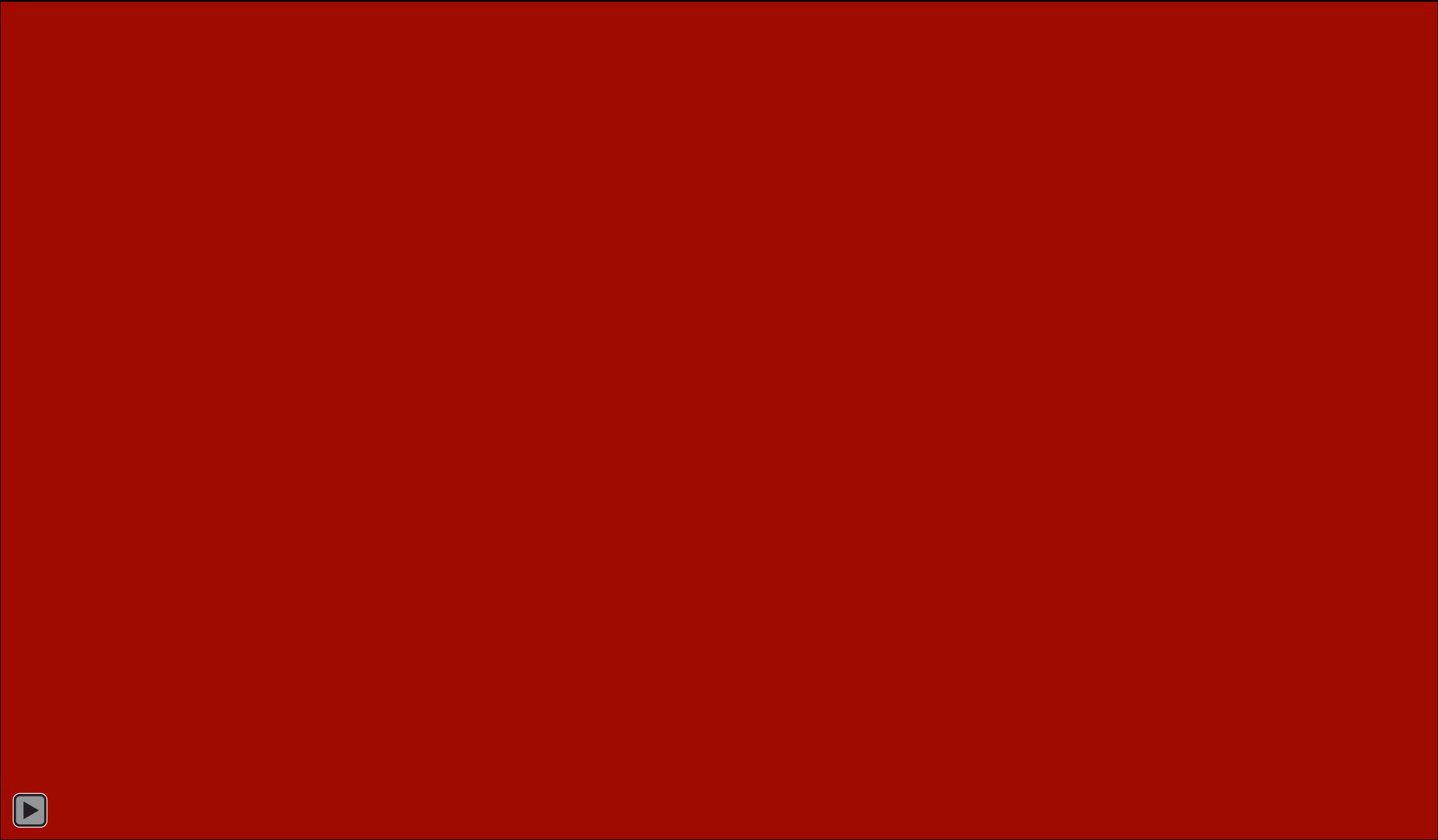
[examples]

[persona]

[format]

[tone]







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# Prompt Example

You are the director of finance for a small public school district. Write a board report explaining the need to partner with other small districts for contracting with special education transportation services. Write in a professional tone. Use the following board report as an example format and style: [paste example]

[task]

[context]

[examples]

[persona]

[format]

[tone]

# Prompt Example

You are a 6<sup>th</sup> grade STEM teacher. Write a lesson about catapults including the history of catapults, parts of a catapult and hands on activities. The lesson should follow 5E Model of Instruction includes five phases: Engage, Explore, Explain, Elaborate, and Evaluate.

## Follow-up prompt

Using Webb's Depth of Knowledge, provide 4 activities for each DOK level.

[task]

[context]

[persona]

[format]

# Ask the Chatbot for the Prompt Used

After several follow-up prompts – You get what you wanted.

Ask the chatbot:

What prompt did you use to generate that result?

[task]

[context]

[examples]

[persona]

[format]

[tone]

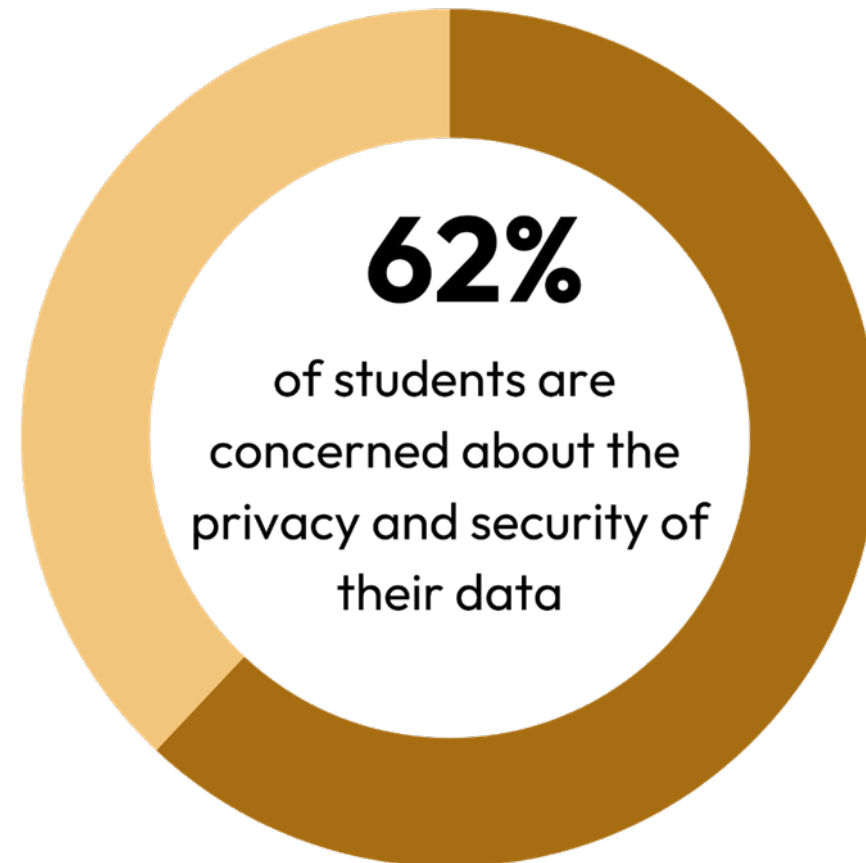
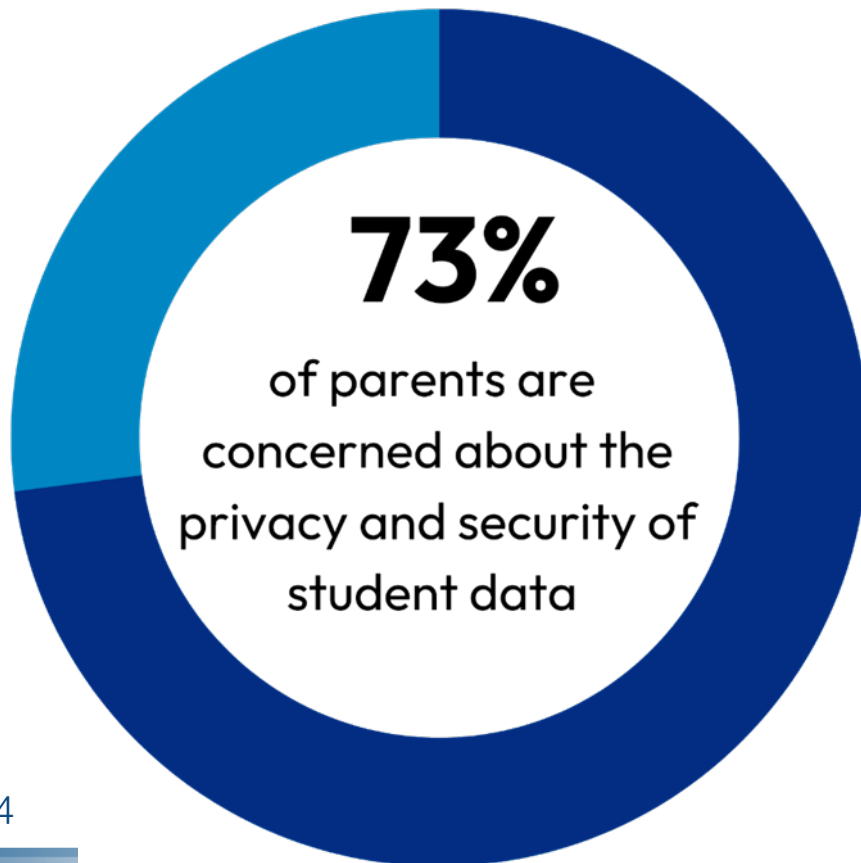
# Privacy & Safety

- Protect Student Data
- Protect Staff Data
- Comply with laws such as FERPA (Family Educational Rights and Privacy Act)



**DATA PROTECTION**

## Both Parents and Students are Concerned about their Data Privacy



# Why Not Share Data

- It's the law! (FERPA)
- Stored by the company running that tool.
- Data could be used to train future AI tools.



Think of AI chatbots as  
Public Data Warehouses!

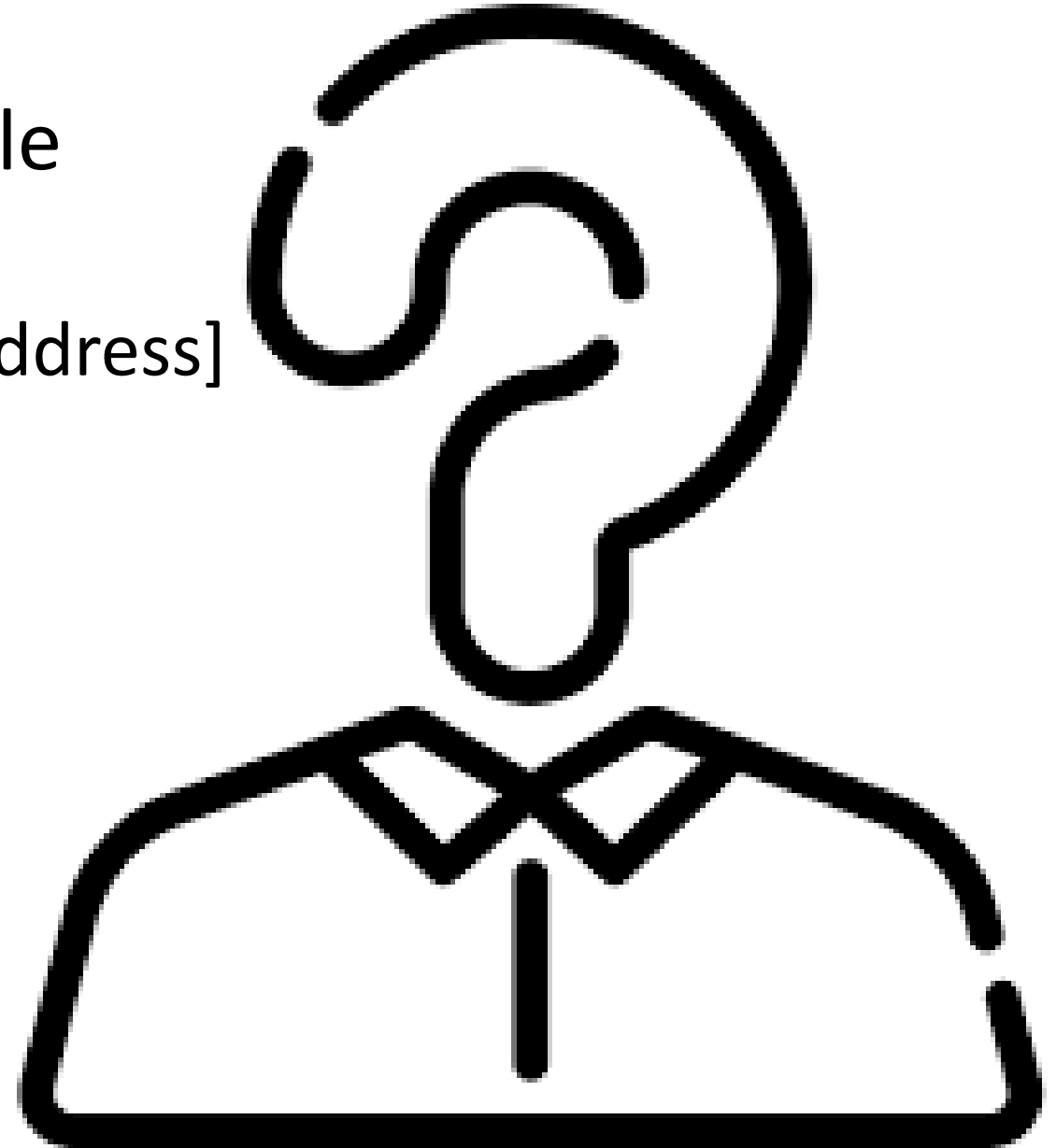


# What Not to Share

<b>Personally Identifiable Information (PII)</b>	Names, addresses, phone numbers, email addresses, social security numbers, student identification numbers, birth dates
<b>Educational Records</b>	Grades, transcripts, class schedules, disciplinary records, disabilities, and IEPs
<b>Health Information</b>	Medical records, health conditions, allergies, medication information, therapy records
<b>Financial Information</b>	Family income, financial aid information, bank account details
<b>Behavioral or Disciplinary Records</b>	Disciplinary actions, behavior reports, counseling records
<b>Photos or Videos</b>	Images or recordings of students without explicit consent
<b>Communication Logs</b>	Personal messages, emails, and communication with parents or guardians

# Train Teachers & Staff to Protect Data

- Remove All Personally Identifiable Information (PII)
  - Placeholders - [Student], [Email address]
- Generalize Information
- Hypothetical Scenarios

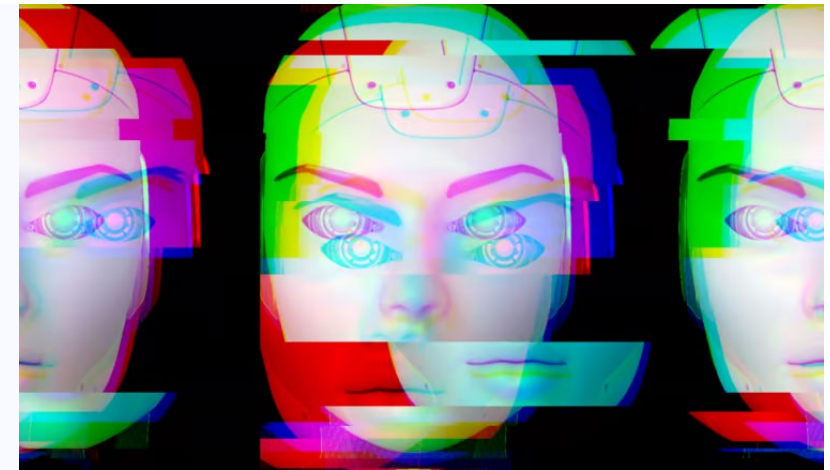


# Hallucinations - AI makes stuff up

- Evaluate for accuracy
- Chatbots can generate fake information by incorrectly piecing together real information or event

## WHAT IS AN AI HALLUCINATION?

An AI hallucination is when a generative AI model generates inaccurate information as if it were correct. AI hallucinations are often caused by limitations or biases in training data and algorithms, and can result in producing content that is wrong or even harmful.

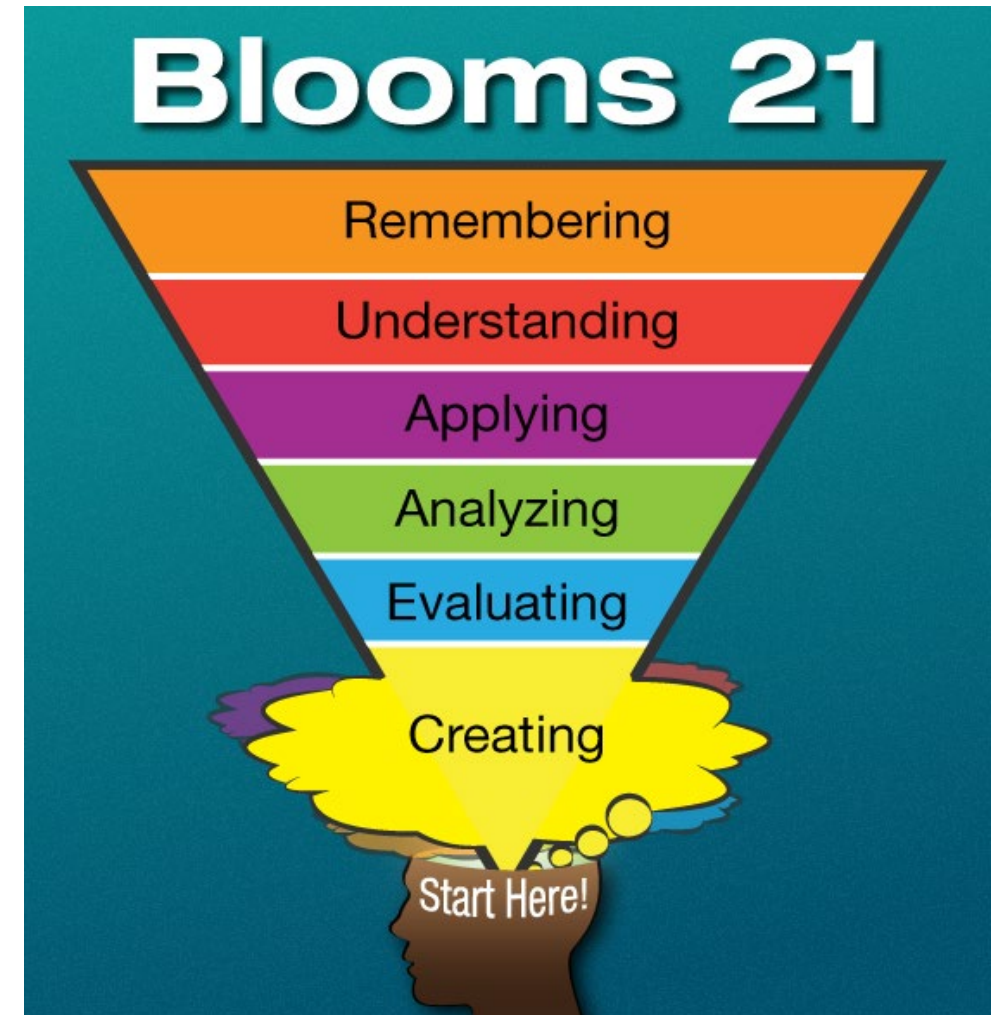


# Bias

When using ChatGPT, creating flips to the bottom

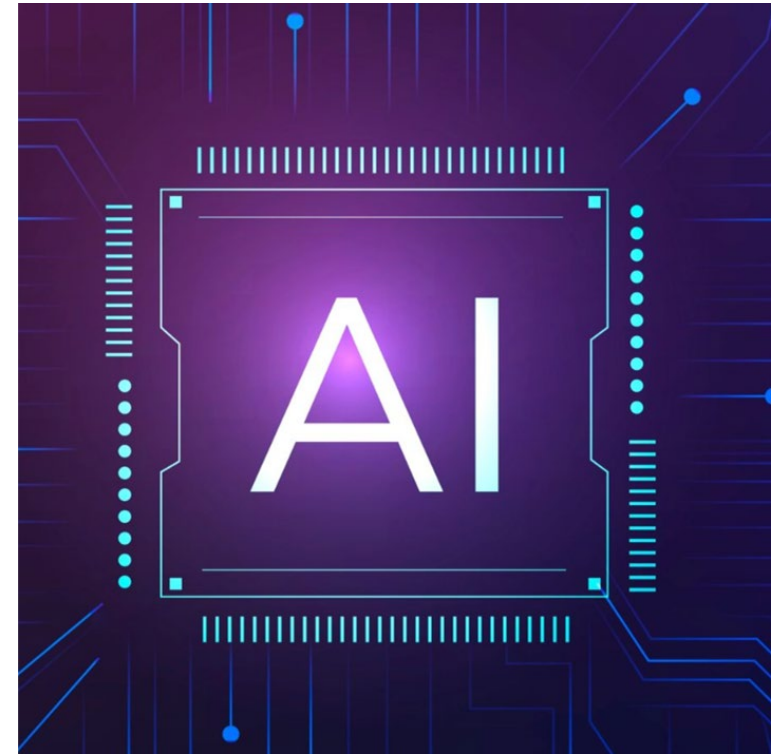
Students/Teachers must

- Evaluate the information
- Analyze it for bias
- How can you apply it?



# Tips for School Leaders

1. Encourage Exploration
2. Provide Training
3. Spotlight Success
4. Host Conversations
5. Set the Right Conditions (School policies & ethical use)



# AI Resources

Great video overview of AI explained - [Generative AI in a Nutshell - how to survive and thrive in the age of AI](#)

AI Newsletters – [The Rundown AI](#), [The Neuron](#), [The AI Educator](#)

## AI for School Leaders

- [AI in K12](#)
  - [RTM Blueprint for District Leaders](#)
  - [Links to AI Tools for Leaders/Administrators](#)
- [AI Could Save School Districts Time and Money—If They Use It Correctly](#)
- [Introducing Microsoft Copilot for Finance: Transform finance with next-generation AI in Microsoft 365](#)
- [Bringing AI to School: Tips for School Leaders](#)
- [White House: Blueprint for an AI Bill of Right](#)
- [An Ethical Framework for AI in Education](#)
- [How to Enact an AI Policy in Your K–12 Schools](#)
- [\(If You\) USEME-AI - A Draft Model For Adapting to AI in Schools](#)

# AI Resources

- [ChatGPT Through an Educator's Lens](#)
- [The Artificial Intelligence \(AI\) for K-12 initiative \(AI4K12\)](#)
- [Artificial Intelligence and the Future of Teaching and Learning](#)
- [AI is for Everyone, Everywhere](#)
- [Ditch That Textbook AI Resources](#)
- [ISTE – AI in Education](#)
- [Elementary Resources, Secondary Resources](#)
- [Teaching with AI](#)
- [Teach AI](#)
- [Day of AI](#)
- [aiEDU - The AI Education Project \(Curriculum\)](#)
- [DAILy Curriculum](#)
- [AI Snapshots: 180 Warm-ups for Core Classrooms](#)

## **Prompting**

- [AI for Education Prompt Library](#)
- [The Rundown AI - Get Started with AI: A Beginner's Guide \(Chapter 1\)](#)
- [ChatGPT: Zero to Power User Cheat Sheet](#)
- [A Teacher's Prompt Guide](#)
- [50 Awesome ChatGPT Prompts](#)

# Questions and Answers

*We thank you for your time!*



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