

If you could ask a robot to do anything to make your **work** easier this week, what would you ask?

https://padlet.com/traceyehm/ai_sandbox_A



Day 1

Orientation
AI for teachers

Day 2

Show & Tell
AI for Learners



Solo Tinkering





Day 1

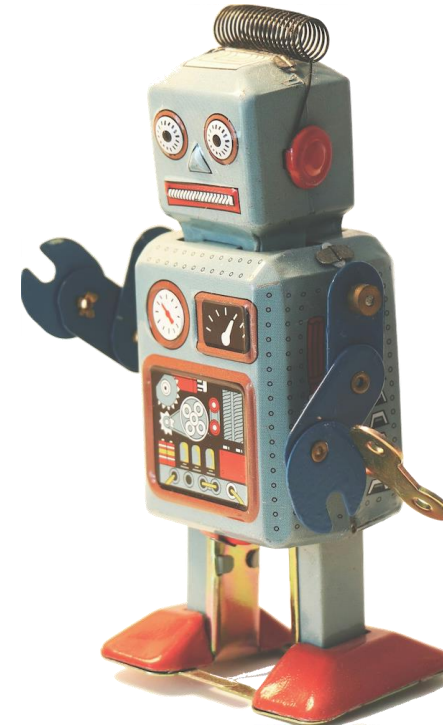
Orientation
AI for teachers

- Welcome
- Practitioner objectives and goals
- The tools
- The engineering methods
- The caveats
- Group tinkering
- Solo tinkering

Question 1

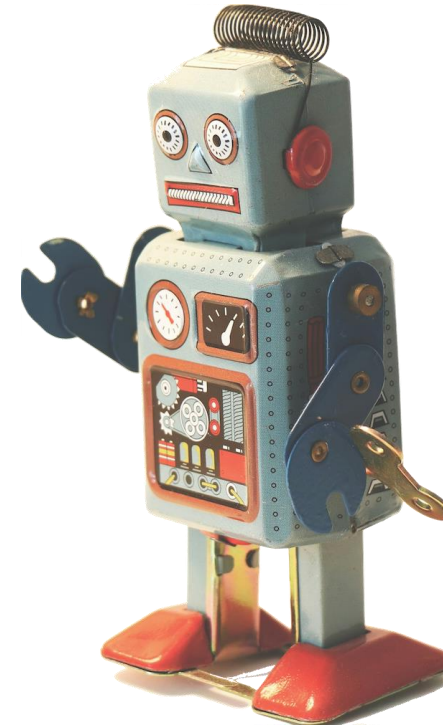


How are you using
Generative AI in your **work**
now?



https://padlet.com/traceyehm/ai_sandbox_B



How would you like to use
Generative AI in your **work**
in the future?



https://padlet.com/traceyehm/ai_sandbox_B

What we are building - our objectives



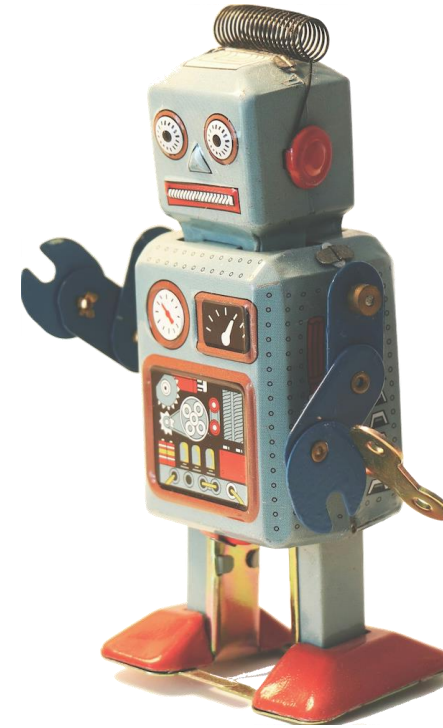
	 Scaffold for practitioners	 Foundation for learners
Objective	Enhance your craft using a chatbot	Create activities for learners
Possibilities for Goals	Lesson plans, learning objectives, rubrics, curriculum maps, reading research and reports, generating reports.	Differentiated activities, personalized learning, translations, assessments.

https://padlet.com/traceyehm/ai_sandbox_B

Question 3



Which Generative AI tools
are you using in your **work**
now?



Chat






<https://chat.openai.com>

<https://gemini.google.com>

<https://www.perplexity.ai>

<https://copilot.microsoft.com>

	<u>ChatGPT</u>	Open AI	3.5 Free 4.0 \$\$
	<u>Gemini*</u>	Google	Basic Free Advanced \$\$
	<u>Perplexity</u>	Perplexity	Basic Free Pro \$\$
	<u>Copilot</u>	Microsoft	Basic Free Pro \$\$

*see endnotes for a note about Gemini



Effective Prompting



Detailed Dialogue



Effective Prompting: 6-steps from Shawn



Effective Prompting

- Use a prompt framework

Task	Clearly define the end goal.	<p>More important</p> <p>↓</p> <p>Less important</p>
Context	Tailor your responses.	
Examples	Mimic style, structure, tone,	
Persona	Embody a specific expertise.	
Format	Bullet points, tables...	
Tone	Add a layer of emotional context.	

Effective Prompting: RACEF



Effective Prompting

- Use a prompt framework.

Role	I am a...
Action	Create a...
Context	This is for...
Examples	For example,
Format	Put the information in a table.



Effective Prompting

- Use a prompt framework.
- Edit the prompt and re-submit if you notice something missing or an incorrect result.



Look for an **edit icon** near your prompt





Effective Prompting

- Use a prompt framework.
- Edit the prompt and re-submit if you notice something missing or an incorrect result.
- Save prompts that work well.



Locate a prior thread with similar context.

To save time as you create threads, return to previous threads with similar contexts and goals so you do not need to engineer your later prompts from scratch.

	 Group 1 Scaffold for practitioners	 Group 2 Foundation for learners
Objective	Enhance your craft using a chatbot	Create activities for learners
Possibilities for Goals or Actions	<ul style="list-style-type: none">• Create a lesson plan, learning pathway or curriculum for a subject, topic or theme.• Write a grant proposal.• Generate or summarize a report.• Summarize an article relevant to your work.	<ul style="list-style-type: none">• Create a reading activity for people with different reading levels.• Create a vocabulary or grammar activity based on a reading.• Create a quiz.• Create an exit ticket for a topic you are working with learners.

Choose an objective (scaffold or foundation)

Choose a goal (an action)

Choose a tool

Use the RACEF engineering method

Tinker until you get a good result



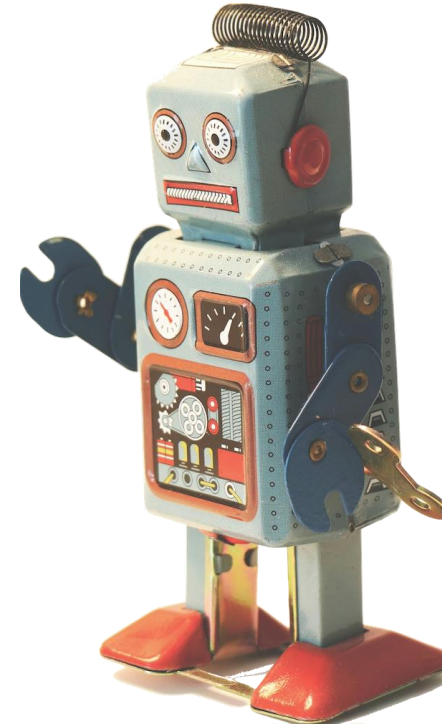
Question 4



Pick one option below or make up your own.

Write a RACEF prompt to





- create a summary of an article you are reading.
- create a quiz about a subject you are teaching.



Question 5



Choose a tool and test your prompt.

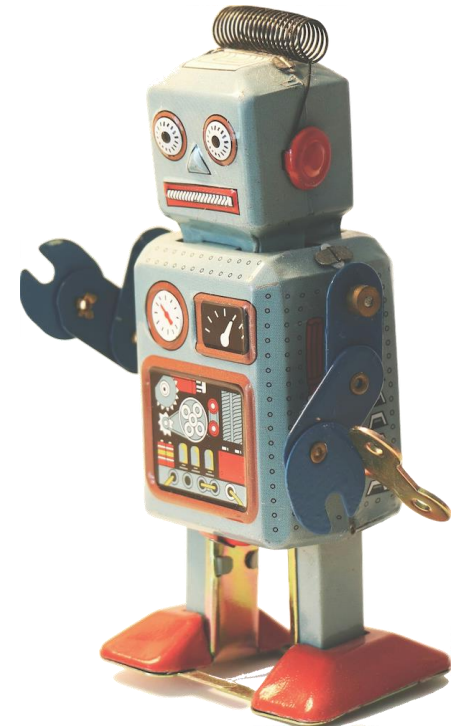
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	<u>Gemini</u>
	<u>Perplexity</u>
	<u>Copilot</u>

<https://chat.openai.com>

<https://gemini.google.com>

<https://www.perplexity.ai>





<https://copilot.microsoft.com>



Question 6



If you have time, choose another tool and test your prompt.

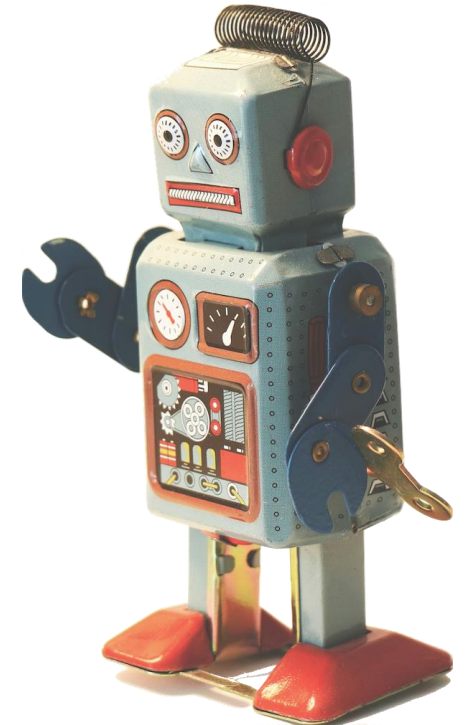
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<https://copilot.microsoft.com>









Alternative practice

We all pick the same option or make up one together.

We write a RACEF prompt together

- create a summary of an article you are reading.
- create a quiz about a subject you are teaching.

Each person tries a different tool and then we compare our results.

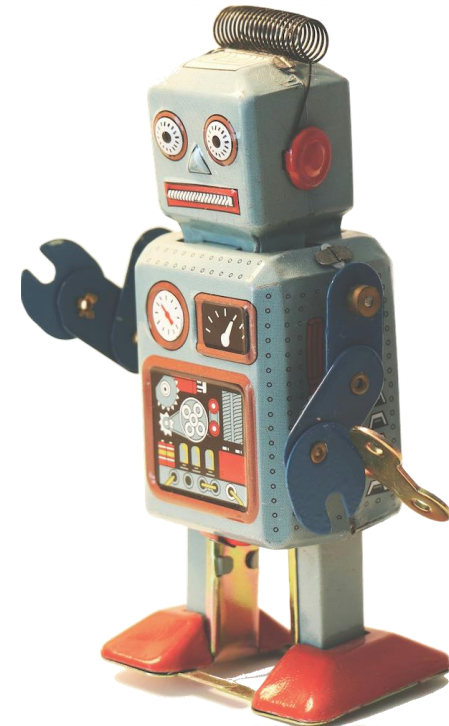
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<https://copilot.microsoft.com>

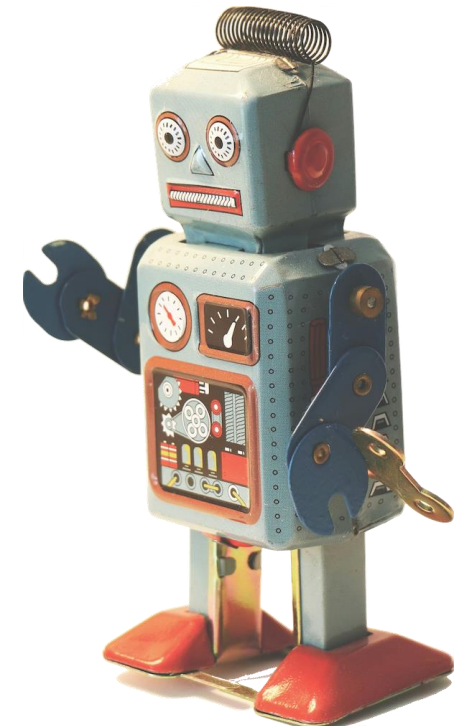


Question 7



What happened?

Which tool did you like best?

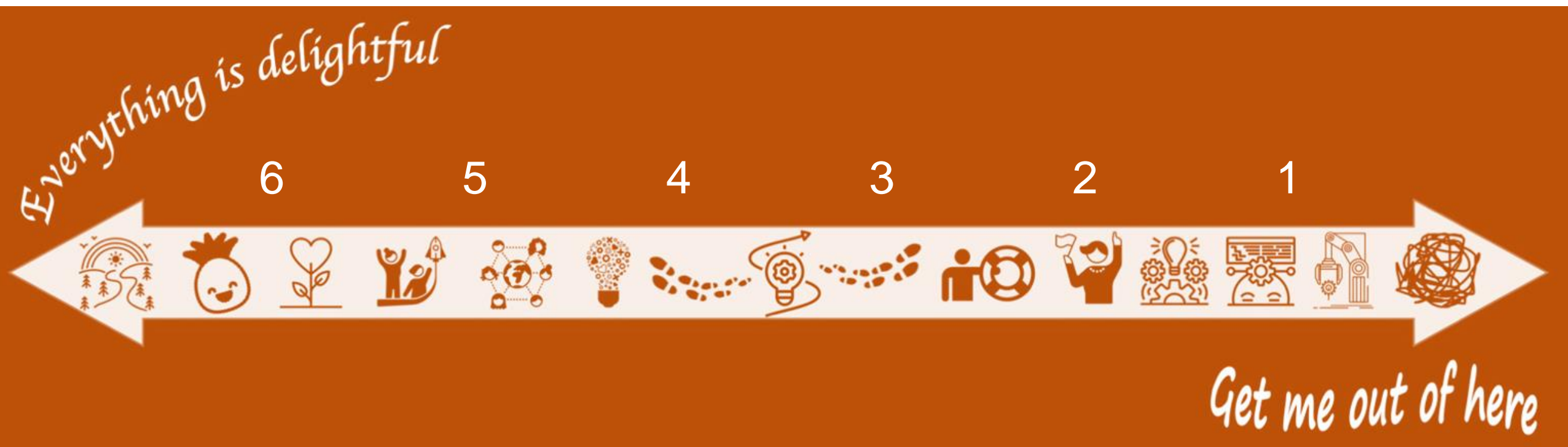


Group discussion

Question 8



How are you feeling now?





Detailed Dialogue

- Start the conversation with a detailed description of your goal.

I am an adult basic education teacher and I want to create a quiz for an upcoming assessment for learners reading at an intermediate level. The quiz will be based on this essay about climate change.



Detailed Dialogue

- Start the conversation with a detailed description of your goal.
- Tell the chatbot to ask you questions.

What questions do you have about the assignment?



Detailed Dialogue

- Start the conversation with a detailed description of your goal
- Tell the chatbot to ask you questions.
- Iterate and refine as you go.

Write the descriptions of the criteria in simpler language.



Detailed Dialogue

- Start the conversation with a detailed description of your goal.
- Tell the chatbot to ask you questions.
- Iterate and refine as you go.



Copy or export the output to keep working on it in a document.

You can end the conversation with a first draft or a near-to-final product.



Chain of Thought

- Enables models to break down multi step processes into intermediate steps.
- Gives depth and explains not just the answer, but how it arrived at the answer.

Formula:
(Your Question)
(Your Question) Let's
go step by step.

Try it:
What is the diameter
of the sun? Explain
how you arrive at your
answer step by step.



Tree of Thought

- A technique used to mimic human brainstorming.
- Works with algebra, arithmetic, and logic (things AI was not originally created to do).
- Helps the model to pursue diverse lines of thinking.

Step	Purpose
Thought Decomposition	Break down a problem into smaller thought steps.
Thought Generator	Generate potential next steps.
State Evaluator	Determine which branches of thought are promising.
Search Algorithm	Limits the breadth and depth of the search



Detailed dialogues: Tree of Thought example A

Simulate three brilliant, logical experts collaboratively answering a question.

Each one explains their thought process in real-time, considering the prior explanations of others and openly acknowledging mistakes.

At each step, whenever possible, each expert refines and builds upon the thoughts of others, acknowledging their contributions.

They continue until there is a definitive answer to the question.

For clarity, your entire response should be in a table. The question is...

Step	Purpose
Thought Decomposition	Break down a problem into smaller thought steps.
Thought Generator	Generate potential next steps.
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Search Algorithm	Limits the breadth and depth of the search



Detailed dialogues: Tree of Thought example B

Imagine three different experts are answering this question.
They will brainstorm the answer step by step reasoning carefully and taking all facts into consideration
All experts will write down 1 step of their thinking, then share it with the group.

They will each critique their response, and the all the responses of others
They will check their answer based on science and the laws of physics
Then all experts will go on to the next step and write down this step of their thinking.
They will keep going through steps until they reach their conclusion taking into account the thoughts of the other experts

If at any time they realise that there is a flaw in their logic they will backtrack to where that flaw occurred
If any expert realises they're wrong at any point then they acknowledges this and start another train of thought
Each expert will assign a likelihood of their current assertion being correct

Continue until the experts agree on the single most likely location
The question is...

Step	Purpose
Thought Decomposition	Break down a problem into smaller thought steps.
Thought Generator	Generate potential next steps.
State Evaluator	Determine which branches of thought are promising.
Search Algorithm	Limits the breadth and depth of the search

Question 9



How are you feeling now?

6

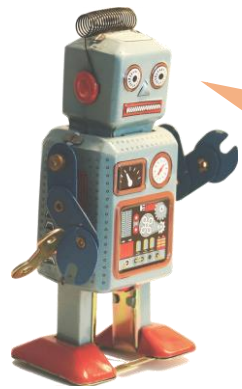
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4

3

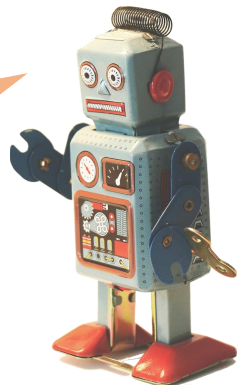
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1



I am excited to keep exploring and creating using generative AI tools.

That's it for me and generative AI for now.



Choose an objective

Scaffold worksheet

Foundation worksheet

Choose a goal (an action)

Choose a tool

Choose an engineering method

Tinker until you get a good result

Share your tinkering results



Padlet



<https://docs.google.com/document/d/1yHSEkuLFiarDsJ51ot2uRzoGRYrKTfIT/copy>

https://docs.google.com/document/d/1KF_ckHGcnCdGhWj8P3Okjcha63MYL_JP/copy

https://padlet.com/traceyehm/ai_sandbox_C

Objectives reminder



	 Scaffold for practitioners	 Foundation for learners
Objective	Enhance your craft using a chatbot	Create activities for learners
Possibilities for Goals or Actions	<ul style="list-style-type: none">• Create a lesson plan, learning pathway or curriculum for a subject, topic or theme.• Write a grant proposal.• Generate or summarize a report.• Summarize an article relevant to your work.	<ul style="list-style-type: none">• Create a reading activity for people with different reading levels.• Create a vocabulary or grammar activity based on a reading.• Create a quiz.• Create an exit ticket for a topic you are working with learners.



Don't enter personal information

Always fact check

Check for bias and harmful stereotypes

Thank You

Guyline Vinet

gvinet@alphaplus.ca

alphaplus.ca

416-322-1012 x 121

1-800-788-1120 x 121



Tracey Mollins

tmollins@alphaplus.ca

alphaplus.ca

416-322-1012 x 108

1-800-788-1120 x 108





What is ChatGPT? from AlphaPlus:
a resource for teachers/instructors with explanations
and ideas for how to use ChatGPT for learning and
program administration in an adult literacy setting.

<https://alphaplus.ca/resources/what-is-chatgpt/>



The RACEF framework is explained in the Neuron's **Introduction to ChatGPT**
→ Prompt Engineering 101
→ Your Go-To Prompt Framework

www.theneuron.ai/courses/intro-to-chatgpt-training-course



It popped up on my screen on Bing and I decided to start asking questions. I did it because I was stuck on something. I was putting a presentation together on values and I was looking for just a short two-minute video that would make it simple, and there is nothing. So I asked it to give me a brief presentation on lining up values with motivation and employment. It gave me a five point presentation with all the resources and a bibliography at the end of it.

Community Gabfest: ChatGPT

We asked three questions:

- What are the best things about AI for educators and learners?
- What are the things that worry you most about AI for educators and learners?
- What do we want to learn next?

I asked it to explain what literacy is. I got the best explanation I have ever heard in my life and I've been in literacy for 24 years. I don't know where they get all their information from but it was the best explanation.

Ideas: Goals for teachers - from Shawn



Lesson planning and writing learning objectives	Analyzing text.	Break down complex issues and concepts.	Find research sources.	Ask to compare the idea in two sources
Create a glossary of terms	Example sentences for new vocabulary	Grading via a rubric in order to be consistent.	Generate test questions for specific learning objectives	Create discussion prompts
Pre-reading support	Get perspectives from historical figures	Clarify archaic language	Create flash cards	Generate a list of discussion questions
Solve technology problems in your classroom	As a thesaurus	Have students practice debate.	Making archaic language accessible.	



10 Practical Ways Faculty and Instructors Can Use AI from Contact North

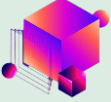


10 specific ways in which instructors can make effective use of AI tools in their own work.

- Create learning resources
- Create meaningful student projects
- Engage in collaborative learning
- Undertake research
- Design and deliver assessment
- Create presentations for use in class
- Keep up with AI tools - [There's an AI For That](#)



Tools for lesson planning: Shawn's list



	Eduaide		Limited Free Pro \$\$
	Magic School AI		Basic Free Advanced \$\$
	Alayna.ai		Limited Free Pro \$\$

<https://www.eduaide.ai>

<https://www.magicschool.ai>

<https://www.alayna.us>

ChatBots Behaving Badly: Gemini



Gemini has been producing some weird results.

What is happening?

Google has invested into building up teams devoted to AI bias and fairness. They produce a lot of cutting-edge research about how to actually make these models less prone to old-fashioned stereotyping.

And they did a bunch of things in Gemini to try to prevent this thing from just being a very essentially fancy stereotype-generating machine.

We don't know what yet, but some possibilities are...

www.nytimes.com/2024/03/07/podcasts/the-daily/gemini-google-ai.html?

ChatBots Behaving Badly: Possibilities for fixes



1

You can try to fix the biases of an AI model during the building of the model by using the **reinforcement-learning-from-human-feedback** method: You take a model that you've trained, and you hire a bunch of contractors to poke at it, to put in various prompts and see what the model comes back with. And then you have the people rate those responses and feed those ratings back into the system.

2

You can try to fix it afterwards by asking it not to be offensive. You can **tell the model to obey a set of principles**: Don't be offensive. Don't stereotype people based on race or gender or other protected characteristics. Etc.



3

You can make an AI system's responses less biased is by changing the prompts: **prompt transformation**. This is unseen editing of our prompts to make sure we get more accurate results. Gemini may have used this method to not just ensure accuracy, but also a higher degree of diversity, equality and inclusion.