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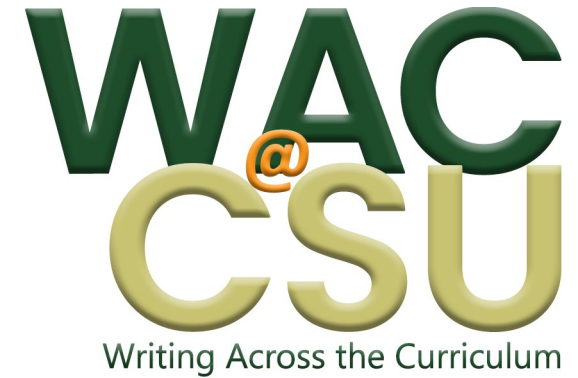
Writing Across the Curriculum

WAC Week Nov. 6-10

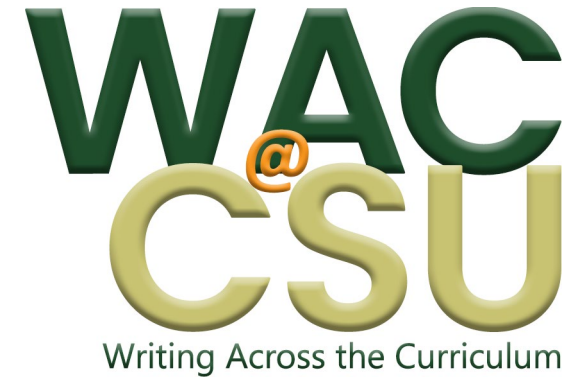
Welcome to WAC Week

All of our workshops will be available online in the coming weeks.

Learn more at writingcenter.colostate.edu/wac.



Welcome to WAC Week




Small Grant Applications

Goal: Develop one or more writing activities or assignments

Support:

- Consultation with an experienced writing instructor
- Materials development
- Outcomes assessment appropriate for demonstration of teaching effectiveness

Learn more at writingcenter.colostate.edu/wac/grants.



Using Generative AI to Enhance Student Engagement with Course Content

Tim Amidon and Mike Palmquist
Colorado State University

A Quick Overview



Some observations on reactions to using generative AI



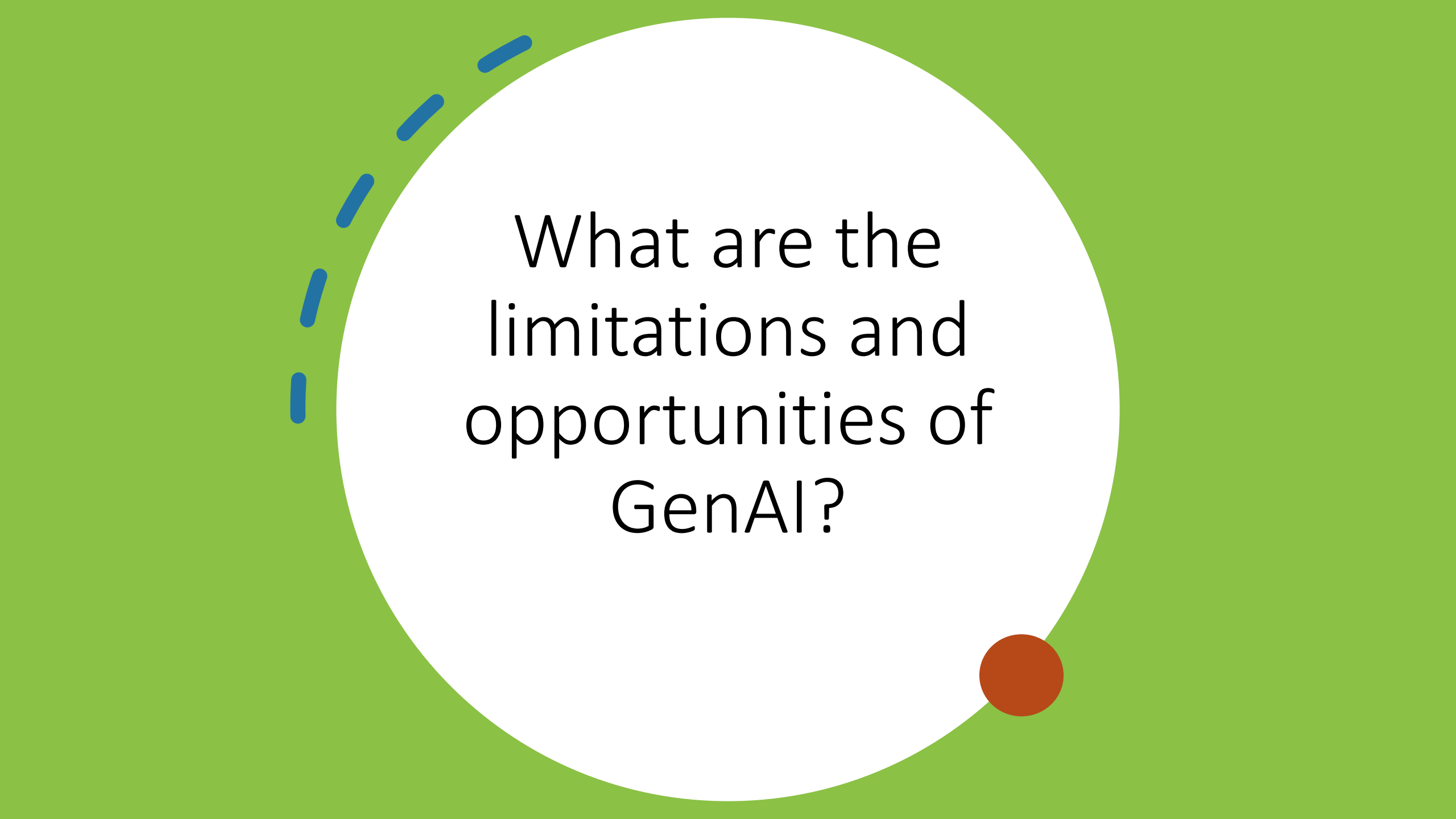
Some observations on its use as to support inquiry



Some observations about its use to support writing



Discussion





What are the
limitations and
opportunities of
GenAI?



Generative AI: The Landscape

Reactions to GenAI have been mixed...

- Visions of futures where GenAI leads to utopian and revolutionary changes to society
 - Bland and/or inconsistent output that reflects biases of training corpus
 - IP/copyright, authorship, and ownership issues
 - Concerns and fears regarding academic integrity and GenAI's impact on learning
 - Useful and exciting results when prompts are well engineered
 - Hallucinations
 - And let's not forget the singularity
- 



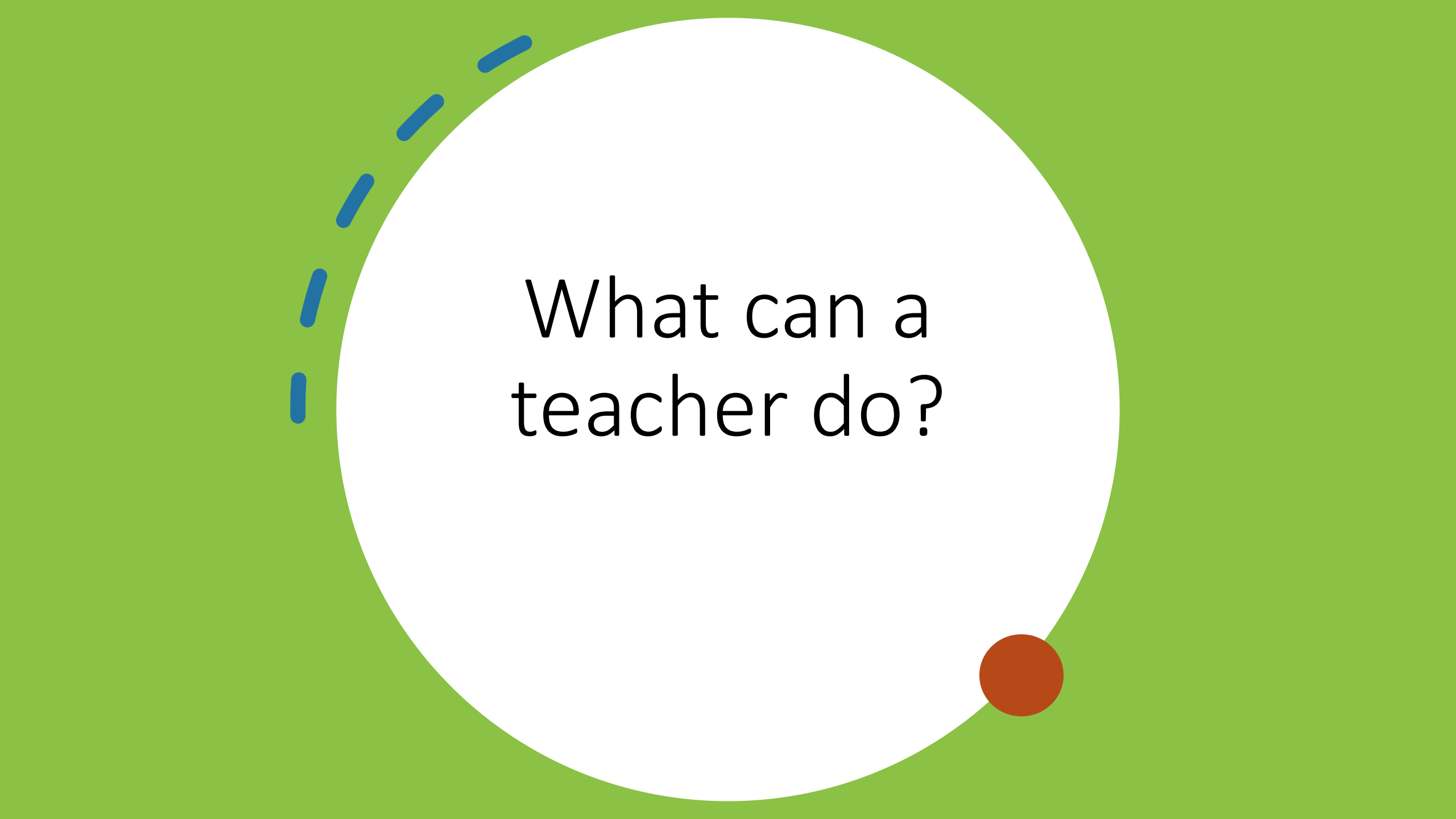
Generative AI: The Landscape

Broader factors informing our stance...

- There's a lot of hype and misinformation surrounding discussions of GenAI
- Only some of it is justified
- Early versions of these tools have been in use in industry for more than a decade
- And productivity packages and computer operating systems are building it into their toolsets (e.g., Microsoft 365 Copilot; Google Workspace Labs; Adobe Firefly).

In other words, it's not going away (yet).





What can a
teacher do?



Using AI to
Advance
Your Course
Goals

Don't ban or ignore GenAI.

Educators have a responsibility to students to help negotiate this moment with students. Banning and/or ignoring GenAI is not a useful pedagogical approach.

Instead, consider your teaching goals.

Are you focusing on writing to learn, writing to engage, or writing in the disciplines?

Are you grading the activity or assignment?





Use AI to support
inquiry.



Using AI as a Tool for Inquiry

If you are focusing on writing to learn ...


- Treat it as a tool for search, synthesis, and reflection.
- **Example:** Ensure that students engage deeply with the tool. They should ask follow-up questions and develop a refined answer. Then they should include their own take on the usefulness of the response they've received. This moves the assignment from seeking information to one in which they seek and reflect on what they learn.

Collect and review the assignment. Grading is optional, but some sort of response—such as a check mark, a brief comment, or an in-class overall comment—will be helpful.



Using AI as a Tool for Inquiry

If you are focusing on writing to learn ...

- **Example:** Use the AI response from an out-of-class assignment as a starting point for in-class discussion, group work, or additional writing. Students can bring their work on the assignment into class and the instructor can use it as a springboard for in-class work.
- 




Using AI as a Tool for Engagement


If you are focusing on writing to engage ...

- Treat it as a starting point for a more substantial assignment. Use it to collect information and then use the information as a launch point for application, analysis, or evaluation.
- **Example:** Ask students to evaluate three approaches to a specific issue. They can use GenAI tools to identify the approaches. Encourage them to use follow-up questions to create useful overviews of each approach. Then ask them to apply one of the approaches to the issue.


Finally, ask them to explain why they did not choose one of the other approaches and/or detail the limitations they saw within responses, after bringing in additional source material beyond GenAI.

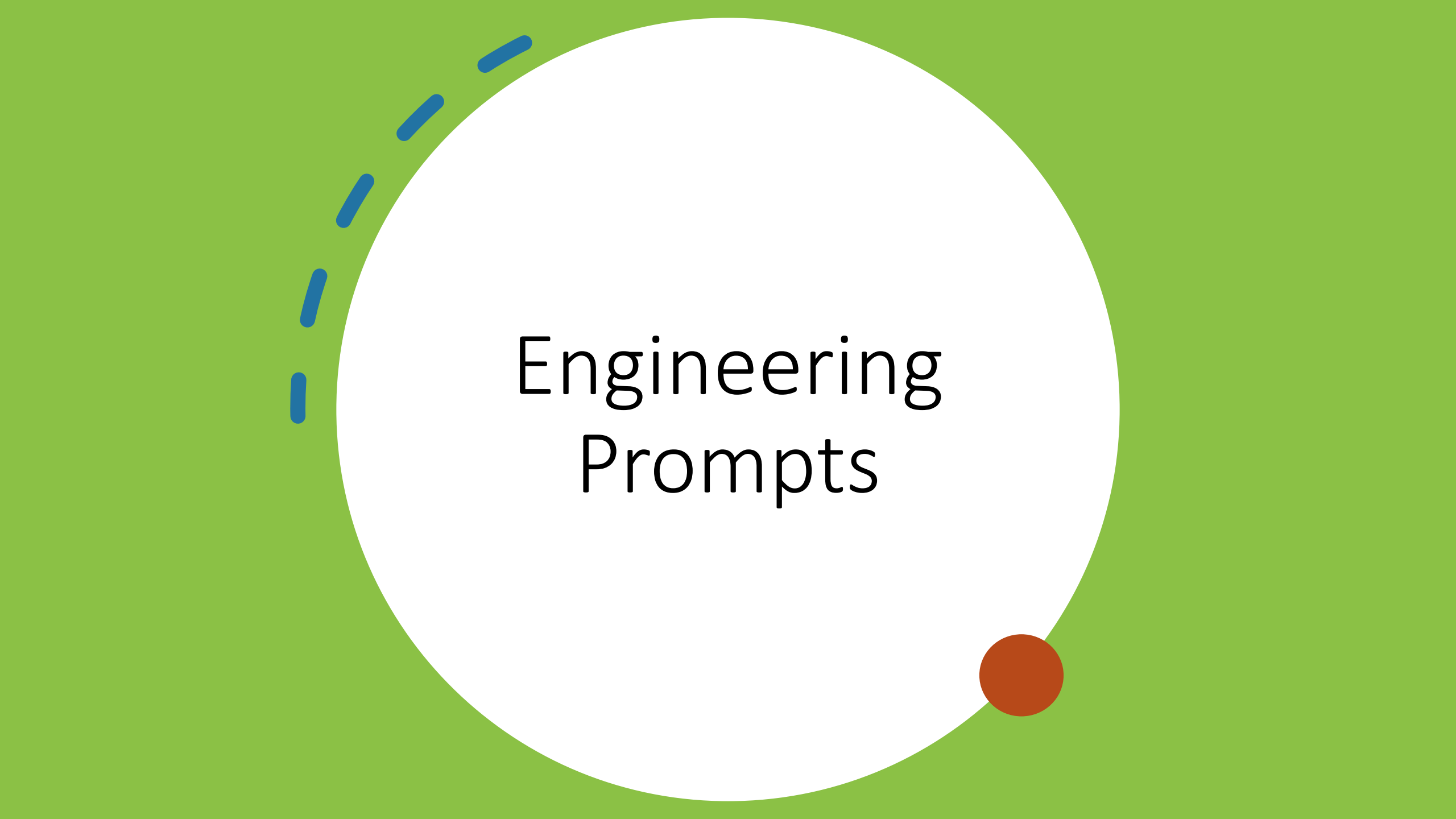


Using AI as a Starting Point for Disciplinary Writing



If you are focusing on writing in the disciplines ...

- Use it as a tool for getting started on a project.
 - **Example:** Ask students to use GenAI tools to identify related published work in a given area. Then ask them to see whether GenAI can assess the quality of three of the results it has found. You might suggest, for example, that they ask if an article is widely cited, if the journal in which it was published is reputable, and if the journal publisher is reputable. Suggest that students use this process to get started on a literature review or to gain an overview of the area.
- 




Engineering Prompts



Iteration

Dobrin (2023) offers five strategies for iterating toward an effective prompt...

1. Clarify details of the task.
 2. Identify any restrictions.
 3. Structure and order the prompt.
 4. Provide input/output examples.
 5. Use introductory cues (called “prefixes”). [We like to think of this as a way of priming the pump.]
- 



Activity

Build and refine a prompt...

Select a question you have related to a topic/project you are currently working on?

For example, see a prompt Tim asked ChatGPT regarding a project he's involved in:


<https://chat.openai.com/share/c607da53-48ba-4812-a45d-c6f3963b76b5>


Employ one or more of Dobrin's suggestions to improve the quality of response from a GenAI tool such as ChatGPT or BingChat.



Iteration

Revisiting Dobrin's (2023) five strategies for iterating toward an effective prompt...

1. Clarify details of the task.
 2. Identify any restrictions.
 3. Structure and order the prompt.
 4. Provide input/output examples.
 5. Use introductory cues (called "prefixes"). [We like to think of this as a way of priming the pump.]
- 




Use AI to support
writing quality.



A Caveat

It's a big caveat. If you are grading writing quality, use the following suggestions with caution.





Using AI as a Feedback Tool

Ask students to use GenAI to provide feedback on their writing.

- **Example:** How accurate and effective is the following text?

Photosynthesis is an important but not all that well understood process. It seems like scientists have been trying to figure out how to turn it into a process we can use outside of plants so that we can produce more energy and better food. But they haven't made it profitable yet. That's unfortunate.



Using AI as a Feedback Tool

Bing Chat: The text you provided is not entirely accurate. Photosynthesis is a well-understood process that occurs in plants, algae, and some bacteria. It is the process by which these organisms convert light energy into chemical energy, which is then used to fuel cellular activities¹. Scientists have been researching ways to harness this process outside of plants to produce more energy and better food. However, it is not a matter of making it profitable, but rather finding ways to make it efficient and cost-effective¹.

I hope this helps clarify the topic for you!


Learn more:

1. byjus.com2. nature.com3. nationalgeographic.org4. gettyimages.com



Using AI as a Revision Tool


Ask students to use GenAI to assess and improve the clarity of their writing.

- **Example:** Suggest that students might use GenAI to revise a paragraph they've written. Then ask them to compare their original paragraph with the GenAI-revised paragraph. Finally, ask them to write a brief assessment of whether the revision is accurate, whether it is clearer than the original, and whether it leaves anything out. When students turn in the assignment, ask them to include the original and GenAI-generated paragraphs.
- 



Using AI as a Revision Tool

An Example: Please improve the following passage of text: Photosynthesis is an important but not all that well understood process. It seems like scientists have been trying to figure out how to turn it into a process we can use outside of plants so that we can produce more energy and better food. But they haven't made it profitable yet. That's unfortunate.





Using AI as a Revision Tool

Bing Chat: Here's an improved version of the passage:

Photosynthesis is a well-understood process that occurs in plants, algae, and some bacteria. It is the process by which these organisms convert light energy into chemical energy, which is then used to fuel cellular activities¹. Scientists have been researching ways to harness this process outside of plants to produce more energy and better food. However, it is not a matter of making it profitable, but rather finding ways to make it efficient and cost-effective¹.

I hope this helps clarify the topic for you!

Learn more:

[1. byjus.com](#)[2. nature.com](#)[3. bbc.co.uk](#)






Using AI as a Style Checker

Bing Chat: Please improve the grammar and spelling in the following passage:

Photosynthesis is an importnat but not all that well understood process. It seems like scientists have been trying to figure out jhow to turn it into a process we can use outside of plants so that we can produce more energy and better food. But they haven't made it profitable yet. That's unfortunate.






Using AI as a Style Checker

Bing Chat: Here's an improved version of the passage:

Photosynthesis is an important but not all that well-understood process. It seems like scientists have been trying to figure out how to turn it into a process we can use outside of plants so that we can produce more energy and better food. However, they haven't made it profitable yet, which is unfortunate.

If you're looking for ways to improve your grammar and spelling, there are many resources available online. [For example, you can use online tools like LanguageTool ¹ or Grammarly ² to check your writing for errors. Additionally, you can review the basics of sentence structure, spelling, punctuation, and word roots ³. Reading a lot can also help you improve your vocabulary and grammar ⁴. Finally, taking courses or using language games and apps can make learning fun ³.](#)


- I hope this helps!



Other uses of AI for writing

GenAI can be useful in activities such as:

- Brainstorming
- Providing an overview of a topic or issue
- Answering questions
- Locating example documents (genre)
- Creating various forms of media (depending on the tool)




Other uses of AI for writing


GenAI is not particularly useful for:

- Coming up with new ideas

It is, after all, all about predicting the most likely words that follow one another on a given topic.

However, it can be pushed a bit by asking it to identify less common or unusual responses to a problem.





“Personalized AI, Everywhere You Write. Instantly generate clear, compelling writing while maintaining your unique voice.”

- Grammarly.com





Some Questions

- Will students engage in the kinds of thoughtful reflection and assessment we ask them to carry out?
- Or will they take shortcuts?
- How will generative AI evolve over time? To what extent, if any, will it erode (or get in the way of improving) the ability to produce well-written text?
- What are the most important questions we can ask about generative AI and learning, teaching, and writing?



Reaction Comments Discussion

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<https://writingcenter.colostate.edu/WAC>