

Generative Artificial Intelligence (GenAI)

Senate, November 4, 2023

Dr. Susan Bens

Dr. Wendy James

Dr. Nancy Turner

Dr. Scott Tunison

Dr. Jane Alcorn

Overview

- What is "GenAI" and how is it used?
- What is happening at USask regarding developments in GenAI?
- Questions and discussion



What is Artificial Intelligence (AI)?

- Machines designed to perform tasks typically requiring human intelligence

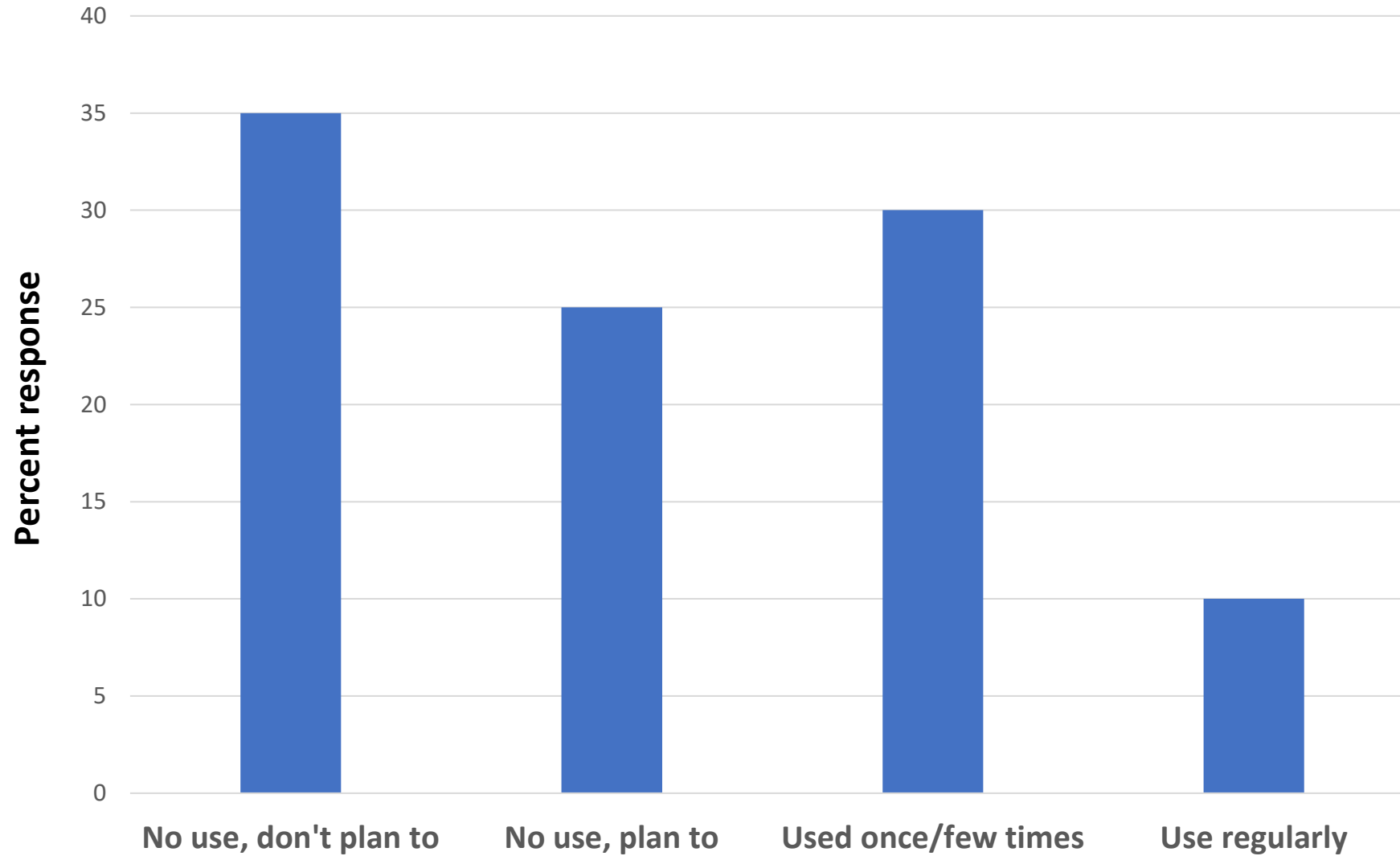
What is Generative AI?

- Branch of AI focused on creating machines capable of generating human-like content

Why is USask paying attention?

- Requires anticipation: Impact on education is game changing

What Senate Members told us



What Senate Members told us

Concerns

- Loss of intellectual skill/abilities
- Ethical concerns
- Environmental
- 'Fake' or mis-information
- Intellectual property theft

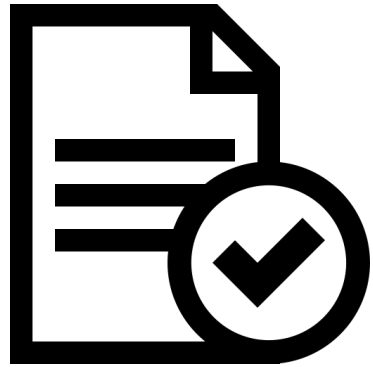
Opportunities & Implications

- Ease/speed of task completion
- Ability for humans to off-load certain tasks to AI
- Advancing knowledge and outcomes in many fields



DEMO:
Openai.com
(ChatGPT 4)

3 “buckets” of GenAI work in teaching & learning



Immediate:
Assessment

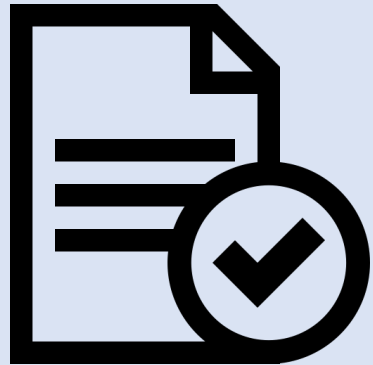


Medium term:
Teaching design



Longer term:
Curriculum for GenAI
literacy and ethics

Assessment Bucket



Immediate:
Assessment



Medium term:
Teaching design



Longer term:
Curriculum for GenAI
literacy and ethics

About Academic Misconduct



Faculty set expectations and requirements for their assessments



Identify academic misconduct

- unpermitted assistance
- misrepresentation of authorship



Follow process outlined in regulations

Detection tools for GenAI are not reliable and are not approved for use

Assessment design question:

Does GenAI ...

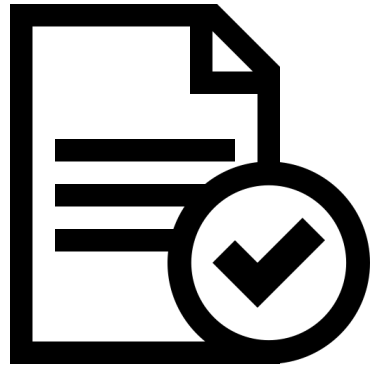
Replace

Hinder

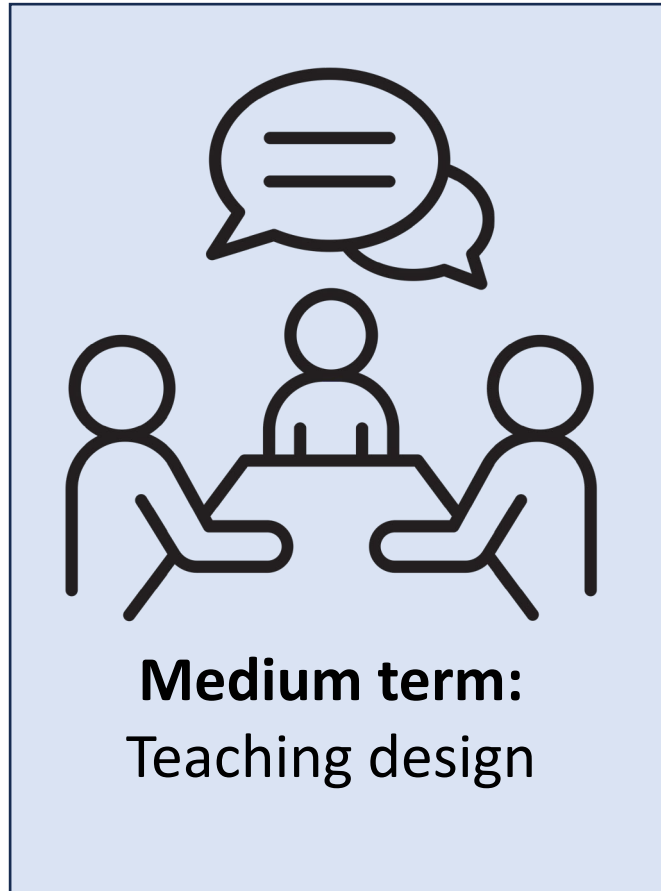
Help

... the intended learning?

Use in Teaching Bucket



Immediate:
Assessment








Medium term:
Teaching design



Longer term:
Curriculum for GenAI
literacy and ethics

Learning Science suggests

-  **Students learn best when:**
-  **Learning destination** is clearly articulated at the start of the learning
-  **Multiple opportunities** for guided feedback and practice are provided
-  **Regular reflection** about progress is embedded in the learning and that learning is **applied/transferred** to novel situations
-  **Technology is leveraged** authentically to enhance the teaching and learning process

Verso Learning



Australia-based educational technology company focused on leveraging power of AI to enhance educator use of high-impact practices identified through Learning Science



Granted free access to its tools and platform for research purposes at USask

College of Pharmacy & Nutrition

Premise:

Today's student is different. Do higher education institutions meet the learning needs of today's student?

College of Pharmacy & Nutrition

Value to Student Learning

- Immediate ability to tell instructor “I am getting it/not getting it”
 - Allows instructor to be more targeted with instruction
- Greater engagement/ownership of learning
 - Students want to feel instructors are responsive to them
- Builds relationship with instructor
 - Mutually honest relationships improve student outcomes

College of Pharmacy & Nutrition

Value to Faculty/Staff

- Is instruction improving student learning?
- Allows instructor to be more targeted/student-centric with instruction
- Resolve misunderstandings earlier in the learning process
- Students appreciate it when instructors are responsive to their needs
- Builds confidence with using technology to enhance teaching/learning
- Embed in tenure/promotion process as more authentic student feedback

College of Pharmacy & Nutrition

Value to program

- Quality improvement in our teaching and learning environment
- Makes obvious that intention of program is to improve student outcomes
- Encourages student engagement in their own thinking and involvement in their learning
- Essential for competency-based curricula

6 Student Feedback Prompts

What are you learning today?

Think about the learning objective for today's lesson and finish the sentence, "We are learning to..."


These verbs might help


Analyze	Compare	Summarize	Explain	Evaluate	Develop
Design	Identify	Estimate	Calculate	Create	Predict
Recognize	Hypothesize	Describe	Understand	Solve	


We are learning to

Your learning progress

Which of the following describes how you're going with your learning?

 I'm confused

 I'm almost there

 I got it!

Tell me more

In order of importance, share the main 3 things you learned from today's class.

Type here to respond

1. Think about the learning objective(s) for today's class and finish the sentence, "We are learning to ..."

2. Which of the following describes how your learning is going?

3. What were the 3 main things you learned from today's class? * *

6 Student Feedback Prompts

4. What could we do differently next time?

What could we do differently next time?

Select the option that you would find most helpful.

▼

Where are you on your learning journey?



I can list several new ideas but I'm not yet sure how they are all connected

5. Where are you on your learning journey?

How are you feeling about today's learning?

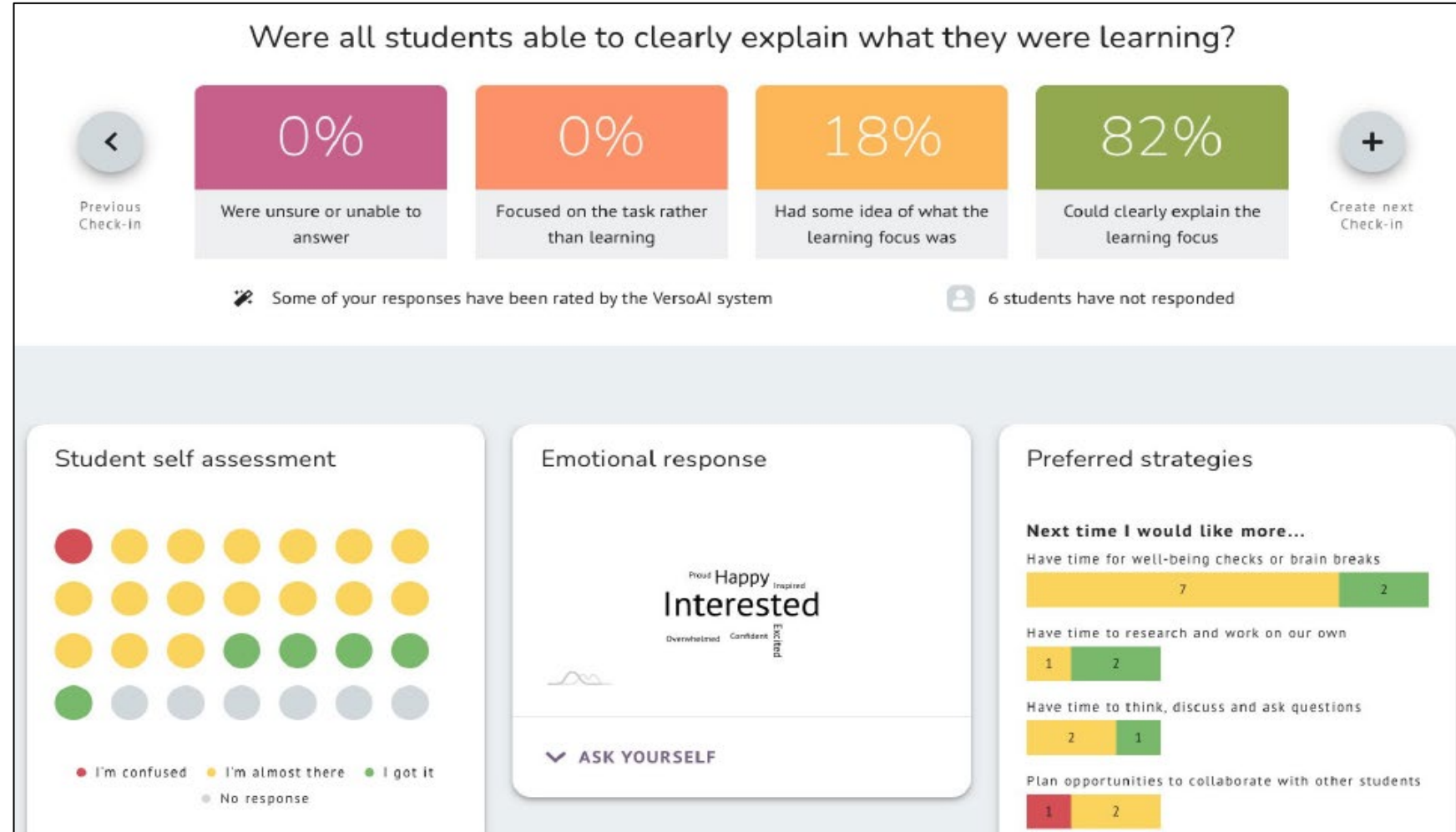
Select the word that best describe how you feel.

Anxious	Confident	Disheartened	Excited
Bored	Interested	Stressed	Happy
Energised	Frustrated	Hopeless	Inspired
Overwhelmed	Upset	Proud	Relieved

6. How are you feeling about today's learning?

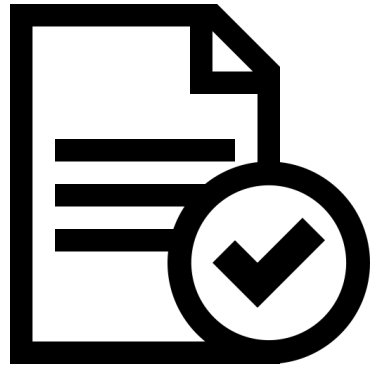
Educator Dashboard

- AI codes student responses to provide easily accessible insights for educators (and programs)



- Investigating whether inviting student input and responding to it in this manner enhances learning

Curriculum Bucket



Immediate:
Assessment

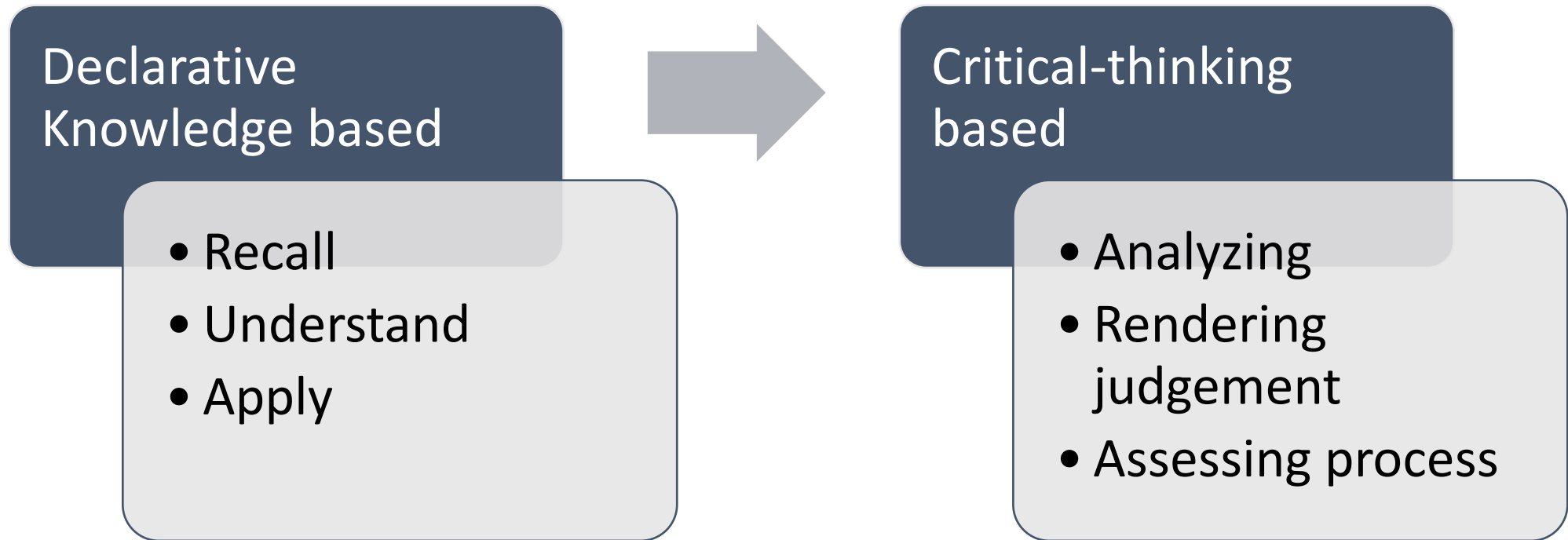


Medium term:
Teaching design



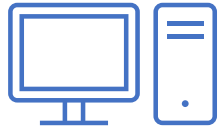
Longer term:
Curriculum for GenAI
literacy and ethics

Cognitive Escalation due to Cognitive Offloading

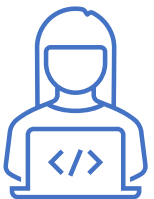


Development of literate and ethics capabilities

Capability: Perform cognitive work where AI is less capable



- Summarize
- Craft initial draft for audience and purpose
- Generate examples and non-examples



- Critique
- Recommend best approach based on context or ethics
- Validate

What is happening now?

Who	What
International Education Sector	Sharing tools and learning together on opportunities and challenges
	Sharing approaches and resources on response and support
Academic leaders	Understanding implications for assessment and need for academic leadership
	Support for considering integrity implications and proactive responses
Departments	Understanding implications for assessment and need for common and informed approaches
	Support for considering integrity implications and proactive responses
Faculty	Understanding implications for assessment and making changes to practice
	Using Generative AI to support instruction or assessment
Students	Considering integrity implications

Questions?

Senate, November 4, 2023

