



Rethinking Assessment in the Age of Artificial Intelligence

Celina Costa

Centre for Preparatory and Liberal Studies, George Brown College

June 6, 2025



Agenda

1. AI in the Workplace & Higher Ed: Context & Trends
2. AI & Academic Integrity: Key Considerations
3. Why We Assess: Purpose in Higher Ed
4. What AI *Can* and *Can't* Do in Assessment
5. Frameworks for AI-Integrated Assessment
6. Real-World Examples
7. Final Reflections
8. Q&A

Session Objectives

By the end of this workshop, you will:

- understand why generative AI requires a rethinking of assessment practices in higher education;
- leave with foundational frameworks and practical examples to help you begin rethinking and redesigning your own assessments.

Do you see AI more as a threat or a tool when it comes to assessing student learning?



- Mostly a threat
- Mostly a tool
- Both
- Neither/I am not sure



The State of AI in the Workforce

AI and the Canadian Workforce

83% of all surveyed Canadian organizations plan to use AI-powered solutions across their organizations by 2028.

66% of employers in Canada say hiring AI-skilled talent is a priority.

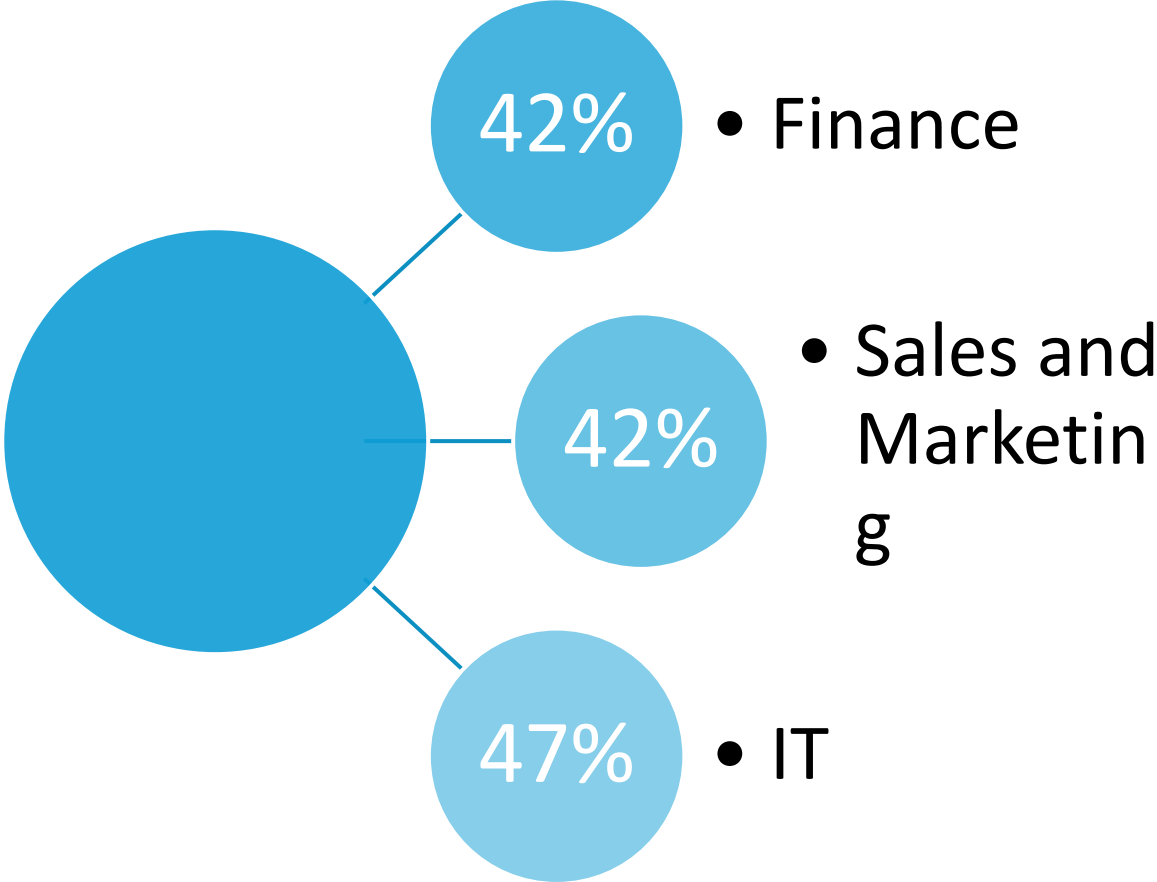
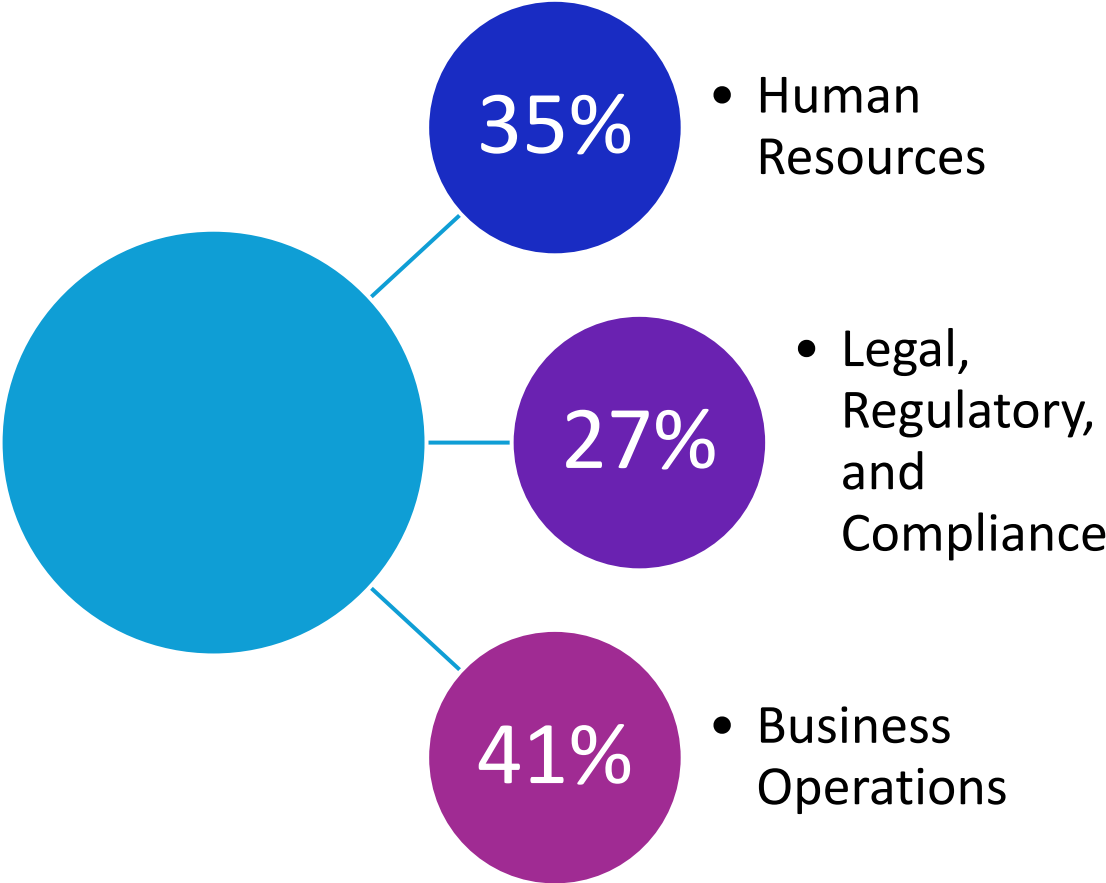
75% of Canadian employers say they cannot find the AI-skilled talent they need.

Employers see higher education as key in meeting the AI skills demand.

(AWS and Access Partnership, 2023)



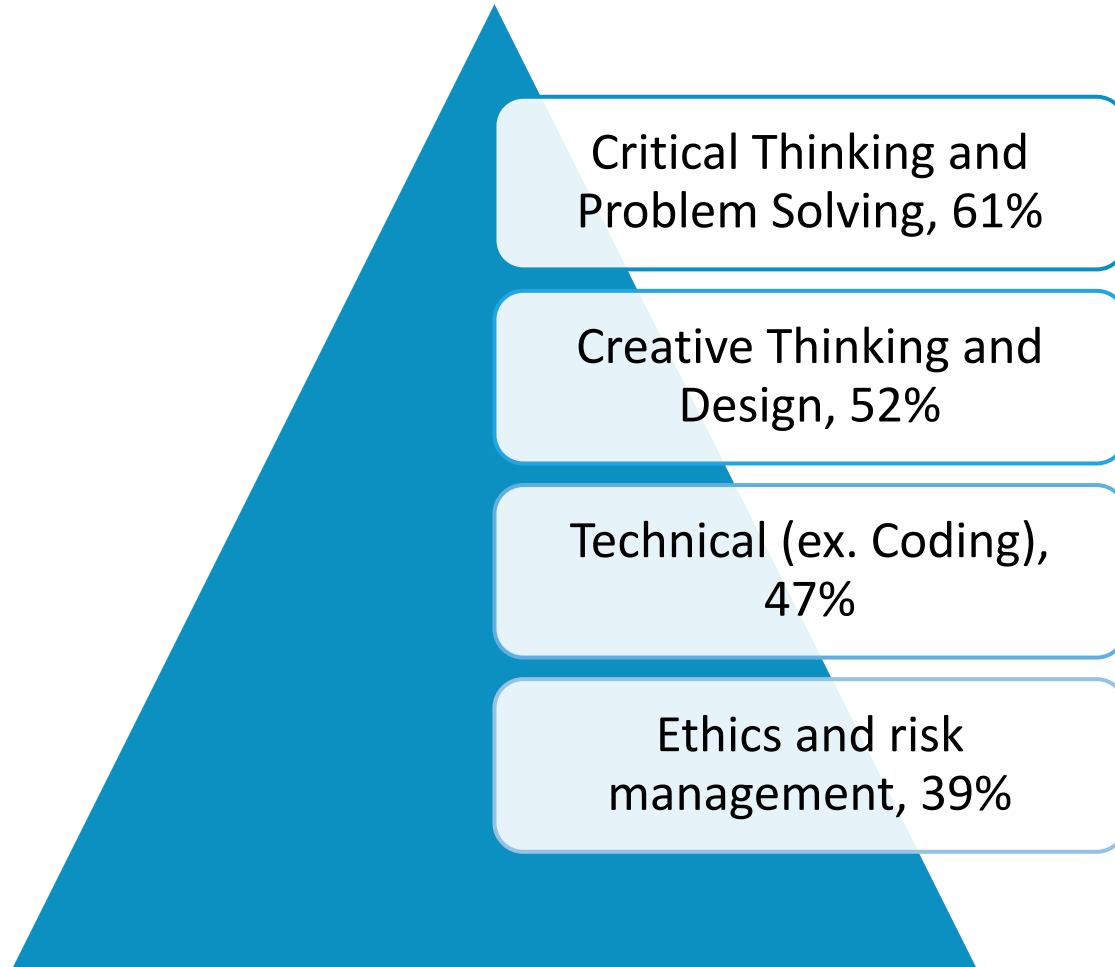
AI Skills and Future Boost in Salaries



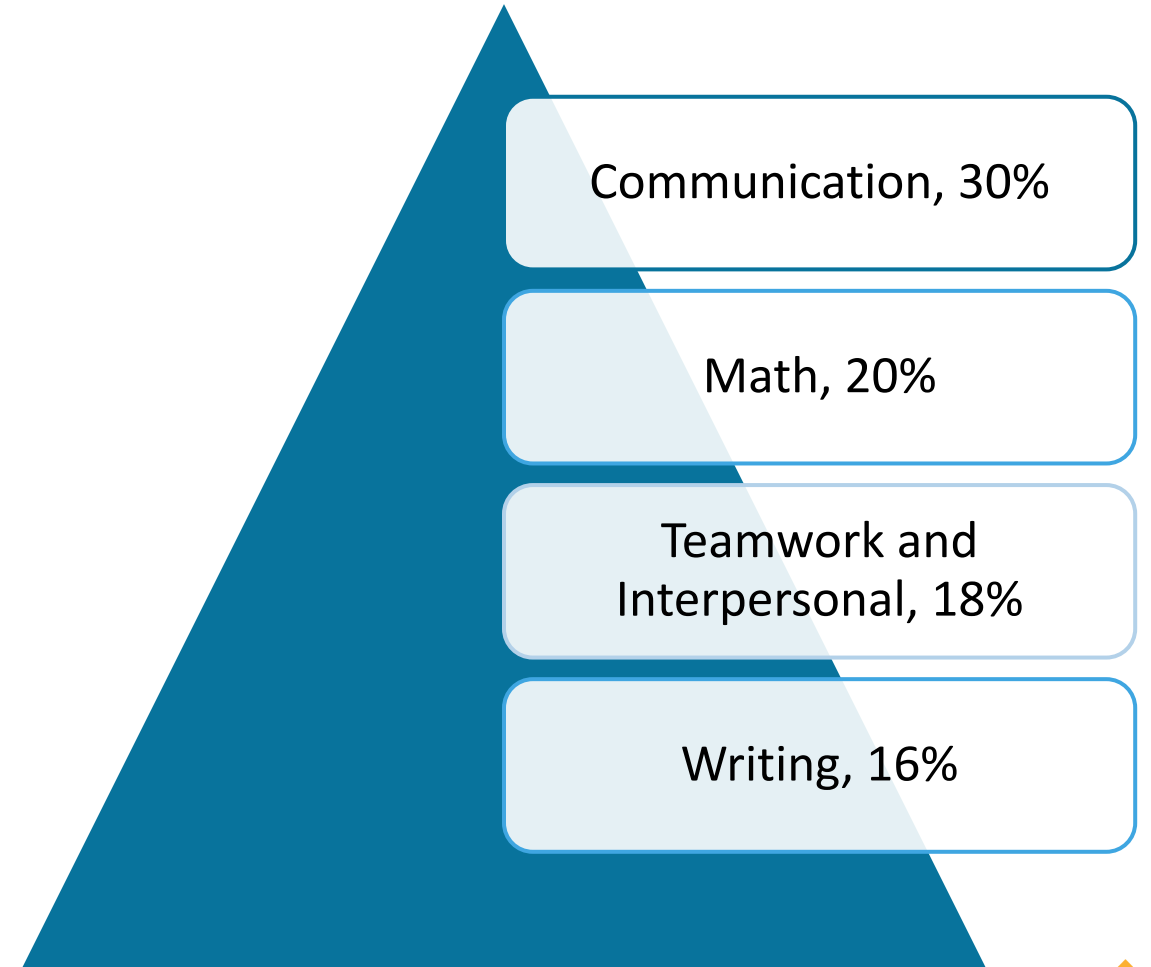
(AWS & Access Partnership, 2023)



Skills Needed to Use AI in the Future



(AWS & Access Partnership, 2023)



Skills
Expected
to
Grow
in
Importanc
e

Core Skills in 2030

AI and Big
Data

Resilience,
Flexibility,
Agility

Curiosity
and
Lifelong
Learning

Systems
Thinking

Self-
Awareness
and
Motivation

The State of AI Usage in Higher Education

Horseless Carriage

"...faculty are at the 'horseless carriage' state of adoption – AI is used to do what we have always done slightly faster, easier, and with some modest quality issues."

(Murgatroyd, 2025)

AI Use in Higher Education

30%-40%

- Faculty have not used AI in any meaningful way

75%

- Faculty use AI occasionally

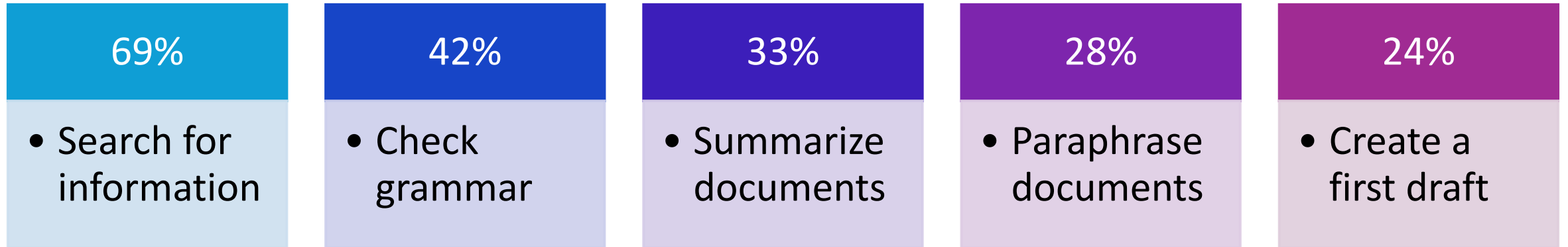
91%

- Students use AI once a week or more often

66%

- Use ChatGPT

Student AI Use Cases



(Digital Education Council, 2024)

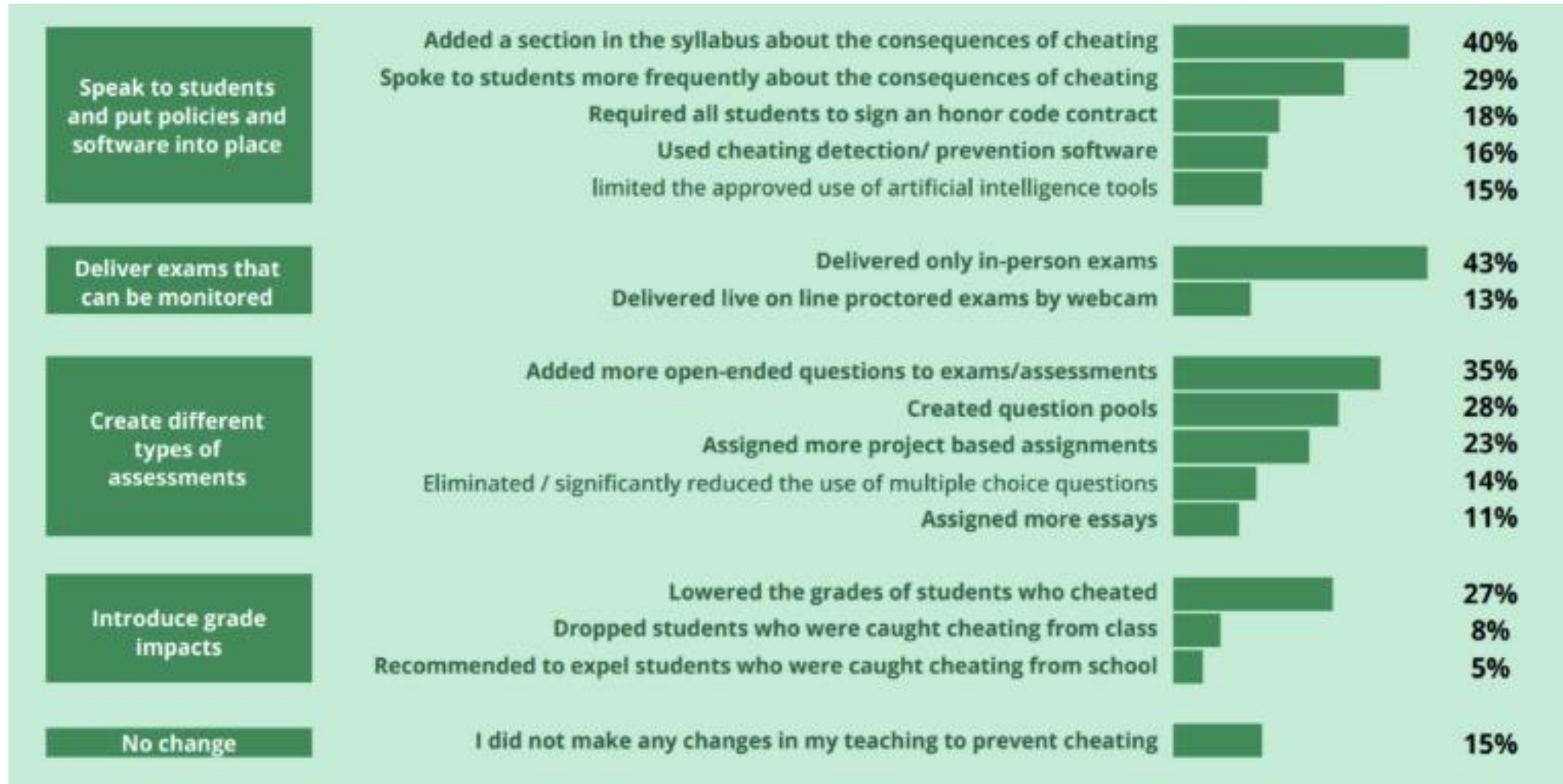
Academic Integrity and Artificial Intelligence AI²

Playing Defense

"...faculty are so preoccupied with 'playing defense' against cheating and academic misconduct that this is sucking up all the time, energy, and oxygen and distracting us from innovation and reimagining the work of teaching, learning, and assessment."

(Murgatroyd, 2025)

Instructors and Cheating Mitigation



(Wiley Network, 2024)

“Cheating correlates with mental health, well-being, sleep exhaustion, anxiety, depression, belonging,” said Denise Pope, a senior lecturer at Stanford and one of the world’s leading student-engagement researchers.”

(Walsh, 2025)

Reasons Students Cheat (A)

1. Pressure and Workload

- Get good grades/Pressure to pass
- Workload is too much
- Work-life balance challenges
- Ongoing negative mental/emotional impact of pandemic

2. Easy to Cheat/Lack Dedication

- Increase in online classes makes it easier to cheat
- GEN AI makes it easier to cheat
- See cheating as a behaviour that will impact future success
- Don't have the skills/preparation to succeed at desired level

Reasons Students Cheat (B)

3. Irrelevant classes or modules

- Class not relevant to their major
- Content not relevant to students

(Wiley Network, 2024)

Most professors have come to the conclusion that stopping rampant AI abuse would require more than simply policing individual cases and would likely mean overhauling the education system to consider students more holistically.

(Walsh, 2025)

Ban AI for Student Assessments?

Banning AI for student assessments

It turns a blind eye to the reality that generative AI is here to stay and is rapidly transforming both the workplace and education.

(Dartmouth Center for the Advancement of Learning, 2024)



End Assessment?

Why we need assessments in HE

- Show that people have the skills and qualifications they claim to have
- Inform decisions about grades, placements, and promotion
- Evaluate what we're doing in education and help us adapt our teaching strategies
- Help students evaluate their own progress

(Contact North, 2024)

What assessments in HE need to be (1)

- Authentic, based in actual practice, not merely theoretical or artificial
- Aligned with genuine employer or workplace needs
- Future-oriented and constructive; more than just evidence of memorization

What assessments in HE need to be (2)

- Reflexive, enabling students to gain understanding and make their own judgements about their learning
- Based on actionable feedback showing how learning can be improved
- Holistic, evaluate a broad and meaningful range of student knowledge and skills, not just the aspects that are quick or convenient to grade

(Contact North, 2024)

What types of assessments do you use in your classes?

All responses to your question will be shown here

Each response can be up to 200 characters long

Turn on voting to let participants vote for their favorites



Assessments AI Can and Can't Do

Assessments AI can do **really well** (A)

- Essays (e.g., argumentative, analytical, reflective)
- Reports (e.g., lab reports, business reports, case study reports)
- Research Papers
- Literature Reviews
- Annotated Bibliographies
- Reflections and Personal Journals
- Case Study Analyses
- Problem-Solving Tasks (e.g., math problems, coding exercises, logic puzzles)

Assessments AI can **partly** help with

- Oral Presentations
- Group Projects
- Exams and Quizzes

Assessments AI **cannot** help with (A)

- Portfolios
- Practical or Hands-On Assessments (e.g., science labs, clinical practice, art projects)
- Debates and Discussions
- Peer Reviews and Critiques

Turn to a Partner and Share

Notice

- What stands out to you about what assessments AI can and cannot do?

Think

- Where do you need to make changes to assessments immediately?

Wonder

- How do your other assessments need to evolve considering AI?

Frameworks to Support AI Integration in Assessment

Updated AI Assessment Scale (AIAS)

1	NO AI	<p>The assessment is completed entirely without AI assistance in a controlled environment, ensuring that students rely solely on their existing knowledge, understanding, and skills</p> <p>You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.</p>
2	AI PLANNING	<p>AI may be used for pre-task activities such as brainstorming, outlining and initial research. This level focuses on the effective use of AI for planning, synthesis, and ideation, but assessments should emphasise the ability to develop and refine these ideas independently.</p> <p>You may use AI for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.</p>
3	AI COLLABORATION	<p>AI may be used to help complete the task, including idea generation, drafting, feedback, and refinement. Students should critically evaluate and modify the AI suggested outputs, demonstrating their understanding.</p> <p>You may use AI to assist with specific tasks such as drafting text, refining and evaluating your work. You must critically evaluate and modify any AI-generated content you use.</p>
4	FULL AI	<p>AI may be used to complete any elements of the task, with students directing AI to achieve the assessment goals. Assessments at this level may also require engagement with AI to achieve goals and solve problems.</p> <p>You may use AI extensively throughout your work either as you wish, or as specifically directed in your assessment. Focus on directing AI to achieve your goals while demonstrating your critical thinking.</p>
5	AI EXPLORATION	<p>AI is used creatively to enhance problem-solving, generate novel insights, or develop innovative solutions to solve problems. Students and educators co-design assessments to explore unique AI applications within the field of study.</p> <p>You should use AI creatively to solve the task, potentially co-designing new approaches with your instructor.</p>



The DEER Approach

D

- Clearly **define** the stages of the project and describe how each stage will affect student learning outcomes.

E

- **Evaluate** a specific AI technology to pair with the learning activity in each stage.

E

- **Encourage** students to explore that technology for that stage.

R

- Allow space for student **reflection**.

(University of Mississippi Libraries, 2025)

Bloom's Taxonomy Revisited

Bloom's and AI

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.



Attribution 4.0 International (CC BY 4.0)

(Tennessee State University, 2024)

	RECOMMENDATION	AI CAPABILITIES	DISTINCTIVE HUMAN SKILLS
CREATE	Review	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases	Formulate original solutions incorporating human judgement, collaborate spontaneously
EVALUATE	Review	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
ANALYZE	Amend	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, & choices
APPLY	Review	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea & solution development
UNDERSTAND	Review	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
REMEMBER	Amend	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible



Rethinking Assessments -Examples-

(University of British Columbia)

Industrial Microbiology

- Students must critically evaluate and verify the accuracy of the information provided by the AI tools, and they are required to document their usage of the tools throughout their project development.
- The professor provides an academic integrity checklist and a reflective survey for students to complete and submit.
- This process not only ensures adherence to academic standards but also promotes deep reflection on the role and reliability of AI in scientific research and presentation.

(University of British Columbia, n.d.)

Social Institutions of Adult Learning

- Students explore the future of adult education through AI-generated art on Padlet. They envision their ideal learning environments, considering key aspects of adult learning discussed in class.
- After describing their visions on Padlet, the AI generates six versions of their environments, from which students select their favorite.
- They then explain the symbolism and connection to course readings.

(University of British Columbia, n.d.)

Rethinking Assessments

-Examples-

(Professor Curtis Bonk, Indiana University)

Emerging Learning Technologies Course (1)

- 1. Discussion Forum:** Students can choose to participate in a human-human or human-AI augmented discussion board.
- 2. Video Reflection Paper:** Students use ChatGPT to generate starter text or 2-3 quotes and must cite it properly.
- 3. Critique:** Students put the readings into ChatPDF, ChatGPT, or other GenAI tool and have the tool do a critique or a book review. Then students write a 2–3-page single-spaced reflection paper or critique of what GenAI produced.

Emerging Learning Technologies Course (2)

4. Analysis of Issues:

Students are encouraged to use ChatGPT or other GenAI tool to develop their issues and challenges. These will go in a table in their paper. Then they write a paper using this starter list by conducting research on each of the items. If students utilized an AI tool to support their efforts, they must use appropriate citations.

5. Historical Trends Analysis:

Track the history of this course over time. Students turn in a 4–5-page single-spaced paper on what they discovered (6-8 pages with a human partner or GenAI partner) not counting references and appendices. Students colour code or highlight contributions from ChatGPT or other AI partners. (Bonk, 2024)

Rethinking Assessments

-Examples-

(College of Letters and Science, University of Wisconsin-Madison)

Geoscience

- Students are expected to identify a viable research topic relevant to course content, and then select and gather information from traditional reputable sources on their own.
- Once they have completed these research steps, they plan and execute prompts for ChatGPT that obtain additional explanation, clarify complex concepts, hypothesize potential scenarios, or further explore the topic and its implications.
- After engineering their prompts for the AI chatbot, students annotate and critique the exchange based on their background research and then reflect on the experience overall.

(Schmidli, Klein, & Harris, 2024)



American Art and Architecture

- The professor asks students in an intermediate-level Frank Lloyd Wright class to use AI to create the “first draft” of their text for their research projects.
- They pick a building designed by Wright and ask the free version of Chat GPT to write a paper about that building relative to one of six course themes.

(Schmidli, Klein, & Harris, 2024)

French

- The professor assigns groups of 2-3 students to engage with ChatGPT.
- Students ask ChatGPT to use the Socratic method to question the basis of their claims and challenges.
- The students are expected to make interpretative claims about Balzac's novel 'Le Colonel Chabert' that they analyze in class.

(Schmidli, Klein, & Harris, 2024)

*Rethinking Assessments -Examples-

(Marc Watkins, University of Mississippi)

First Year Writing Course

- Instructor articulates difference between AI-assisted and AI-generated writing through developing and using **AI Standards of Conduct**.
- Students use their [AI Writing Assistant](#) to develop a thesis statement that answers the prompt question and to explore opposing opinions that contradict the students' thesis.
- Students use their [AI Writing Assistant](#) to explore claims rebutting the opposing opinion.
- Students complete reflection questions (250 words long).

AI-Assisted vs AI-Generated Writing

AI-Generated Writing

- Little or no involvement from the student as an author
- The majority of the writing is generated by an AI

AI-Assisted Writing

- Can include brainstorming, outlining, and drafting
- Substantial writing, research, and composing done by the student

Assignment Reflection Questions

1. Identify one area of the brainstorming assignment that was helpful to your learning process. Why did you select this area and how was it helpful to your learning?
2. **Was using the AI-Writing assistant helpful in completing the assignment? Why or why not?**
3. Was it difficult finding evidence to support your thesis?
4. **What new information did you learn about your topic by generating counterarguments using our AI assistant?**
5. What information do you feel like you still need to know in order to write your essay?

(Watkins, n.d.)



AI as Catalyst for Assessment Innovation

Fitting AI into your Course: Big Picture (A)

What do you want your students to learn?

- Reflect on your primary course goals, the most vital takeaways from the course, and the types of thinking students need to do to accomplish them.
- These goals should guide your choices surrounding AI use in your course.
- Whatever you choose, be sure to design assignments and communicate your policies to students according to the ways you expect students to use or not use AI.

(University of Pennsylvania, n.d.)



Fitting AI into your Course: Big Picture (B)

What type of work is essential to achieving your learning goals?

- For example, the idea-generation phase of a project may sometimes be more critical than the final written product, while at other times, crafting polished academic or discipline-specific writing is fundamental.
- Design your assignments to emphasize vital knowledge and skill development.

(University of Pennsylvania, n.d.)



Fitting AI into your Course: Big Picture (c)

How might AI support or detract from students' engagement in your course?

- AI has countless applications, such as serving as a dialogue partner to engage with course material, but certain uses may impede vital community-building and human interaction.
- Develop your AI policy around the knowledge and skills students should build without AI assistance.

(University of Pennsylvania, n.d.)



Fitting AI into your Course: Concrete Action (A)

When designing or adapting an activity or assignment used to assess learning, whether you integrate AI or not, consider these two questions:

1. Why is this assessment meaningful, and
2. What are students supposed to learn from it?

(Stanford University, 2025)



Fitting AI into your Course: Concrete Action (B)

Integrate these three approaches:

1. Support students in the responsible use of AI tools
2. Redesign types of assessment: look for higher-level skills
3. Redesign assessment rubrics (embed AI into assessment)

(Stanford University, 2025)

Eaton's 6 Tenets of Post-Plagiarism

Hybrid Human-AI Writing Will Become Normal

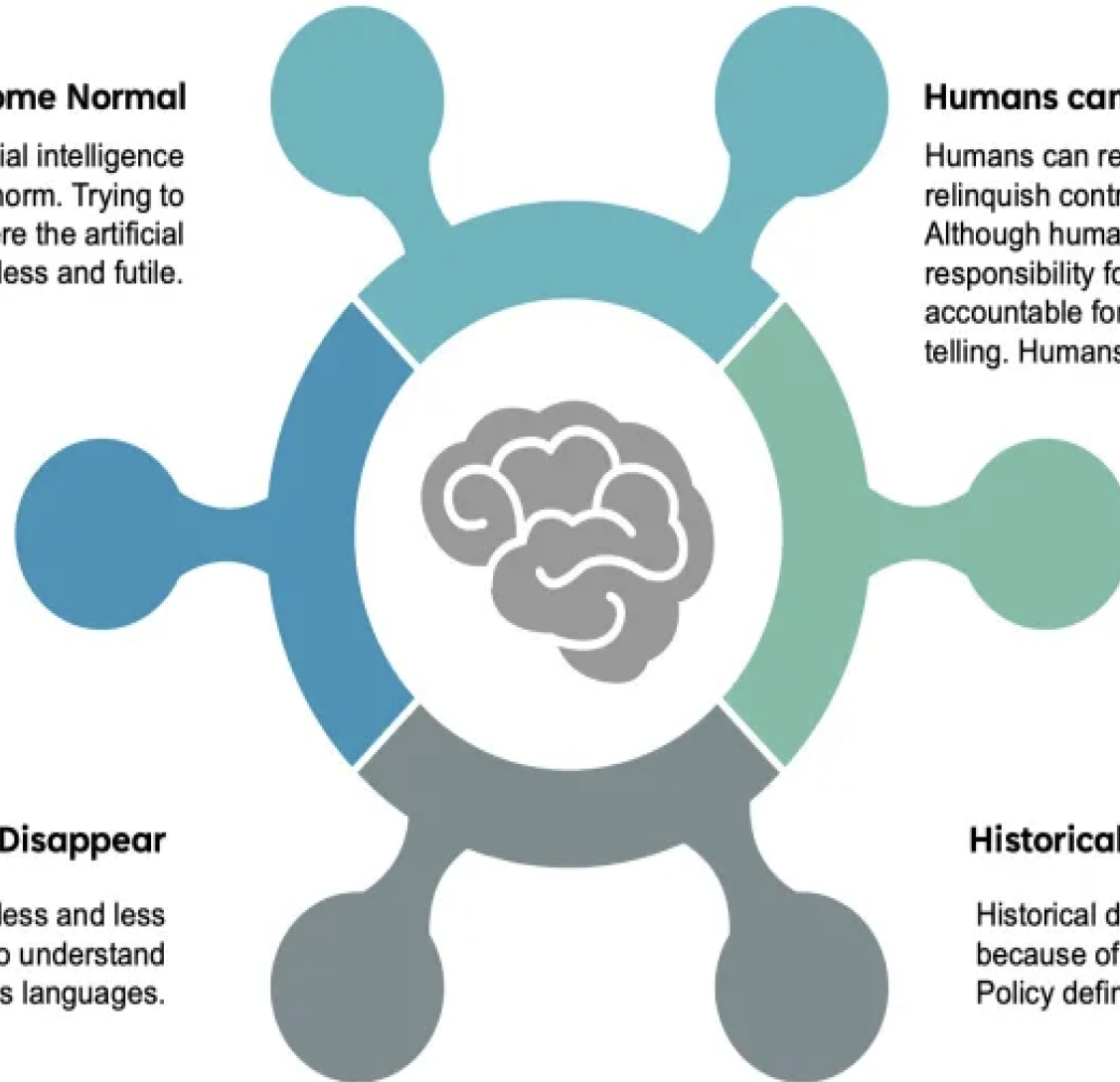
Hybrid writing, co-created by human and artificial intelligence together is becoming prevalent. Soon it will be the norm. Trying to determine where the human ends and where the artificial intelligence begins is pointless and futile.

Human Creativity is Enhanced

Human creativity is enhanced, not threatened by artificial intelligence. Humans can be inspired and inspire others. Humans may even be inspired by artificial intelligence, but our ability to imagine, inspire, and create remains boundless and inexhaustible.

Language Barriers Disappear

One's first language will begin to matter less and less as tools become available for humans to understand each other in countless languages.



Humans can Relinquish Control, but not Responsibility

Humans can retain control over what they write, but they can also relinquish control to artificial intelligence tools if they choose. Although humans can relinquish control, they do not relinquish responsibility for what is written. Humans can – and must – remain accountable for fact-checking, verification procedures, and truth-telling. Humans are also responsible for how AI-tools are developed.

Attribution Remains Important

It always has been, and always will be, appropriate and desirable to appreciate, admire, and respect our teachers, mentors, and guides. Humans learn in community with one another, even when they are learning alone. Citing, referencing, and attribution remain important skills.

Historical Definitions of Plagiarism No Longer Apply

Historical definitions of plagiarism will not be rewritten because of artificial intelligence; they will be *transcended*. Policy definitions can – and must – adapt.

Assessing with Integrity in the Age of AI (A)

1. Provide clear guidelines on when and how AI tools can be used
2. Educate students on the ethical use of AI tools
3. Redesign assignments to require critical thinking
4. Implement process-oriented assessments (e.g. drafts, outlines, presentations)
5. Encourage open discussion about AI use in coursework

(Eaton, 2024)

Assessing with Integrity in the Age of AI (B)

6. Focus on developing skills that AI cannot replicate (e.g. creativity)
7. Incorporate in-class writing and presentations
8. Teach information literacy and source evaluation
9. Emphasize the value of original thought and personal growth
10. Create a culture of integrity through positive reinforcement

(Eaton, 2024)



Elevating Assessment: A Recap

- Focus on more complex tasks
- Focus on improving the quality of assessments
- Create more meaningful assessments that mirror the real world
- Model and promote academic integrity
- Develop an AI policy for each assessment, if necessary
- Teach digital and AI literacy
- Provide reasonable workloads for students
- Be flexible

(Watson, 2024)



Closing Thought

We will serve our students better by exploring these [AI] tools with them critically, defining their potentially supporting role in student learning, and being transparent and deliberate about how we structure our students' learning for maximal growth.

(Dartmouth Center for the Advancement of Learning, 2024)

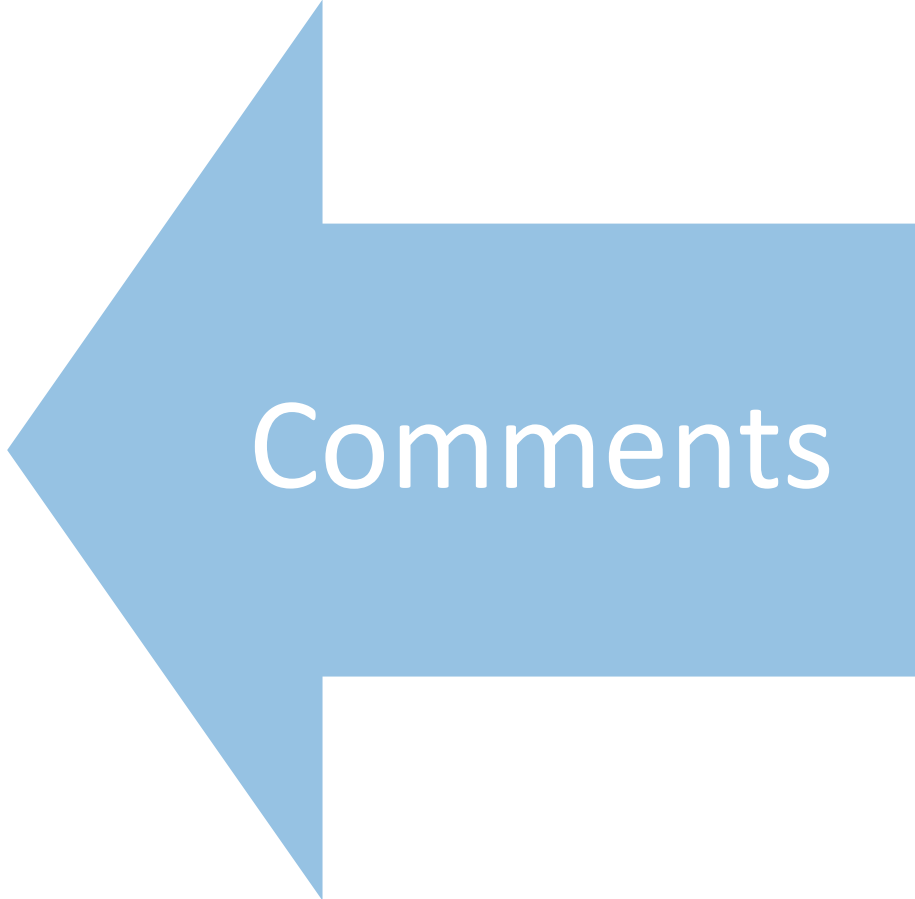


2. Do you see AI more as a threat or a tool when it comes to assessing student learning?

- Mostly a threat
- Mostly a tool
- Both
- Neither/I am not sure



Share one takeaway from this session.



evolved → →

Thank you!

Celina Costa

Email: ccosta@georgebrown.ca

LinkedIn: [celina-costa-93461a238](https://www.linkedin.com/in/celina-costa-93461a238)



References (1)

AWS & Access Partnership. (2023). *Accelerating AI skills: Preparing the workforce for jobs of the future*. <https://accesspartnership.com/global-ai-skills-study/>

Bonk, C. J. (2024, February 8). *How faculty can harness generative AI-enhanced learning (Part 2)* [Webinar]. Contact North. <https://teachonline.ca/webinar/how-faculty-can-harness-generative-ai-enhanced-learning-part-2>

Contact North. (2024, October 24). *No more tests? Working with, against and around AI*. <https://teachonline.ca/tools-trends/no-more-tests-working-against-and-around-ai>

Dartmouth Center for the Advancement of Learning & Learning, Design and Innovation. (2024, December 5). *Guidance for Dartmouth faculty on teaching with generative AI*. https://docs.google.com/document/d/15cFYWmsfqR83fvami1w7hG6hy1bvJ7eu8nRD61b_nOg/edit?tab=t.0

References (2)

Digital Education Council. (2024, August 2). *Global AI student survey 2024*. <https://www.digitaleducationcouncil.com/post/digital-education-council-global-ai-student-survey-2024>

Eaton, S. E. (2024, November 13). *Postplagiarism: Helping students maintain academic integrity in the age of artificial intelligence* [Webinar]. Contact North. <https://teachonline.ca/webinar/postplagiarism-helping-students-maintain-academic-integrity-age-artificial-intelligence>

Furze, L. (2024, August 28). *Updating the AI assessment scale*. <https://leonfurze.com/2024/08/28/updating-the-ai-assessment-scale/>

Murgatroyd, S. (2025, May 14). *What's next for artificial intelligence (AI) in colleges & universities?* [Webinar]. Contact North | ContactNord. [What's Next for Artificial Intelligence \(AI\) in Colleges & Universities? - Zoom](#)

References (3)

Schmidli, L., Klein, J., & Harris, M. (2024, February 16). *Revise assignments in response to generative AI*. University of Wisconsin–Madison. <https://idc.ls.wisc.edu/ls-design-for-learning-series/revise-assignments-genai/#original-thinking>

Stanford University. (2025, April). *Integrating AI into assignments*. <https://teachingcommons.stanford.edu/teaching-guides/artificial-intelligence-teaching-guide/integrating-ai-assignments>

Tennessee State University. (2024). *Bloom's taxonomy revisited*. <https://ai-tnstatesmartcenter.org/artificial-intelligence--a-i/ai-blooms>

University of British Columbia. (n.d.). *Assessment design using generative AI*. Centre for Teaching, Learning and Technology. <https://ai.ctlt.ubc.ca/assessment-design-using-generative-ai/>

References (4)

University of Mississippi Libraries. (2025, March 26). *Artificial intelligence: Faculty resources*. <https://guides.lib.olemiss.edu/c.php?g=1362389&p=10266256>

University of Pennsylvania, Centre for Excellence in Teaching, Learning, and Innovation. (n.d.). *Generative AI & your teaching*. <https://cetli.upenn.edu/resources/generative-ai-your-teaching/>

Walsh, J. D. (2025, May 7). Everyone is cheating their way through college: ChatGPT has unraveled the entire academic project. *Intelligencer*. <https://nymag.com/intelligencer/article/openai-chatgpt-ai-cheating-education-college-students-school.html>

Watkins, M. (n.d.). *AI in first year writing courses*. University of Mississippi. <https://wac.colostate.edu/repository/collections/textgenerated/ethical-considerations/ai-in-first-year-writing-courses/>

References (5)

Watson, C. E. (2024, April 29). *Implications of AI on higher education* [Video]. YouTube. <https://www.youtube.com/live/tEU7bBTrcro?si=qS8anfjKrTLel3EV>

World Economic Forum. (2025, January 7). *The future of jobs report 2025*. <https://www.weforum.org/publications/the-future-of-jobs-report-2025/in-full/3-skills-outlook/>

Wiley Network. (2024, July 26). *The latest insights into academic integrity: Instructor & student experiences, attitudes, and the impact of AI (2024 update)*. <https://www.wiley.com/en-us/network/education/instructors/teaching-strategies/the-latest-insights-into-academic-integrity-instructor-and-student-experiences-attitudes-and-the-impact-of-ai-2024-update>

Other Resources

[AI in Higher Education Resource Hub](#)

Find the latest trends, best practices, webinars, and teaching resources in AI for higher education from Contact North.

[Learning with AI](#)

Excellent ideas for student-AI collaboration from University of Maine.

AI in Education Thought Leaders to Follow:

1. Dan Fitzpatrick ([AI Educator](#))
2. Ethan Mollick ([One Useful Thing](#))
3. Philipa Hardman ([Learning Futures Digest](#))

Conference Schedule



Description	Time
Registration/Coffee/Breakfast	8:00 am - 9:00 am
Opening Remarks & Keynote	9:00 am - 10:50 am
Concurrent Session Block 1	10:40 am - 11:50 am
Lunch	11:50 am - 12:50 am
Round Table	1:00 pm - 1:50 pm
Concurrent Session Block 2	2:00 pm - 2:50 pm
Concluding Ceremonies	3:00 pm - 3:40 pm