



Land acknowledgment

McGill University is on land which has served and continues to serve as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous peoples whose footsteps mark this territory on which peoples of the world now gather.





(Re)Designing assessments in the age of generative AI or What the @#\$% do we do with assessment now?

Adam Finkelstein, Associate Director, Learning
Environments

Carolyn Samuel, PhD, Associate Director, Teaching
Success



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Teaching and
Learning Services

August 20, 2025

Teaching strategy choice

LEARNING OUTCOME By the end of this course, you should be able to ...	ASSESSMENT STRATEGY	TEACHING STRATEGY
Apply concepts to solve problems	Short answer exam	?

(1)

Weekly quizzes

(2)

Short written assignments every two
weeks written in pairs or 3s

(3)

Analyze problems



Assessment strategy choice

LEARNING OUTCOME By the end of this course, you should be able to ...	ASSESSMENT STRATEGY	TEACHING STRATEGY
Illustrate processes	?	Concept (mind) mapping

(1)
Infographic

(2)
Weekly problem
quizzes

(3)
Oral presentation



Constructive alignment (Biggs, 1996)

Backward
design

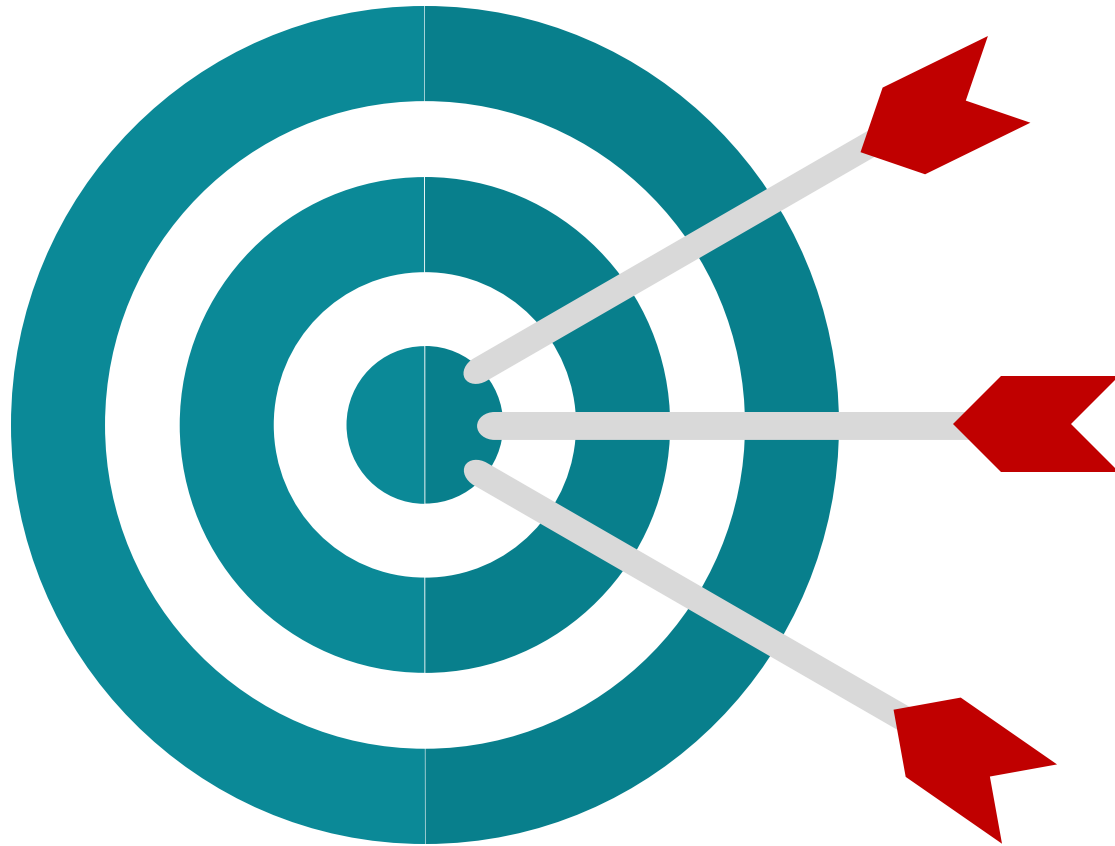
LEARNING OUTCOME By the end of this course, you should be able to ...	ASSESSMENT STRATEGY	TEACHING STRATEGY
Illustrate processes	Infographic	Concept (mind) mapping
Apply concepts to solve problems	Short answer exam	Analyze problems



Hold this thought: validity



Session outcomes



Make informed decisions about designing gen AI in or out of assessment tasks

Apply constructive alignment to assessment tasks where gen AI use has been designed in or out

Work with a framework to build gen AI into assessment design

What is assessment?

“**process** of gathering data to better understand the strengths and weaknesses of student learning” ([Harris & Hodges, 1995](#), p. 12)



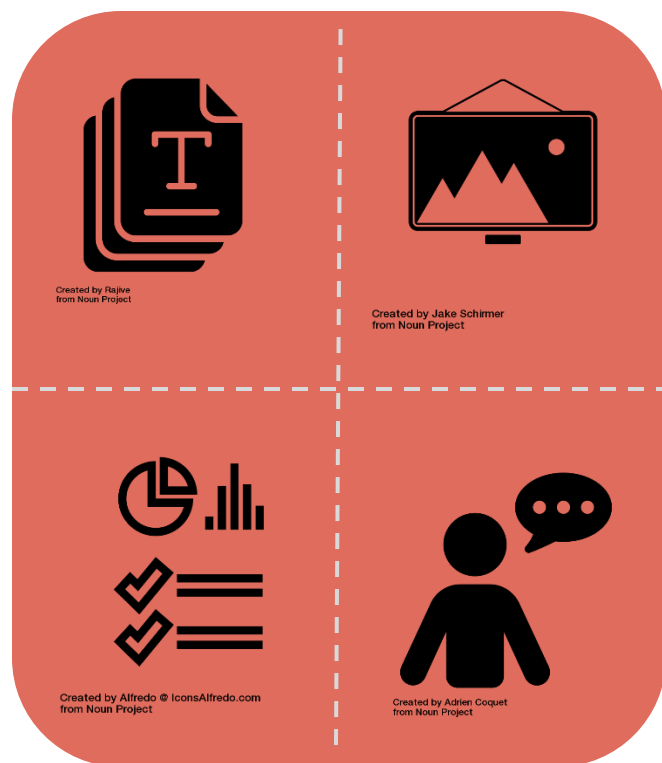
Assessment has power to motivate students to engage in learning ...

“We may not like it, but students can and do ignore our teaching; however, if they want to get a qualification, they have to participate in the assessment processes we design and implement” ([Brown, 2005, p. 81](#)).

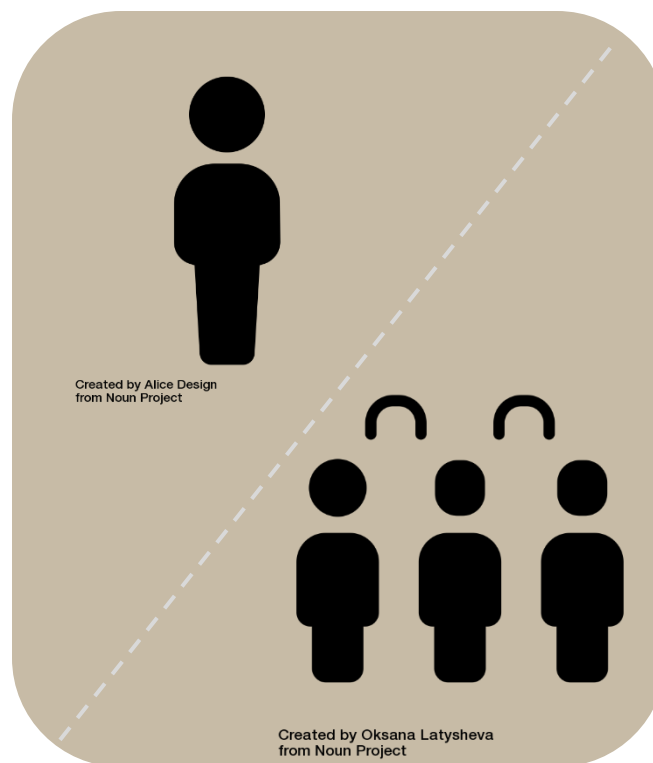
“In the minds of our students, what we test and how we test says more about our educational goals, values, and philosophy than anything else we do or say during the term” ([Whetten, 2007, p. 347](#)).



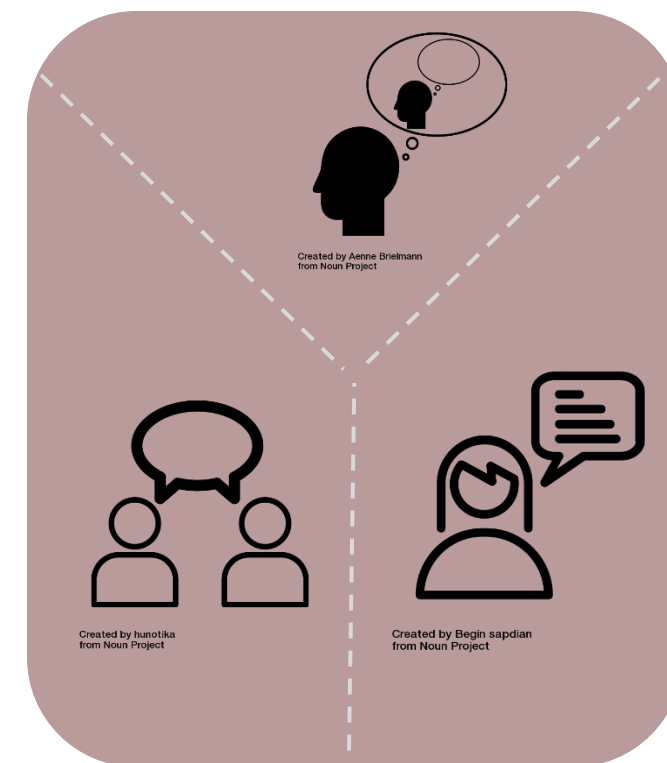
Demonstrate learning in a variety of ways



Artifact



Interaction



Feedback

(Adapted from [Fenwick & Parsons, 2000](#); [Suskie, 2018](#))

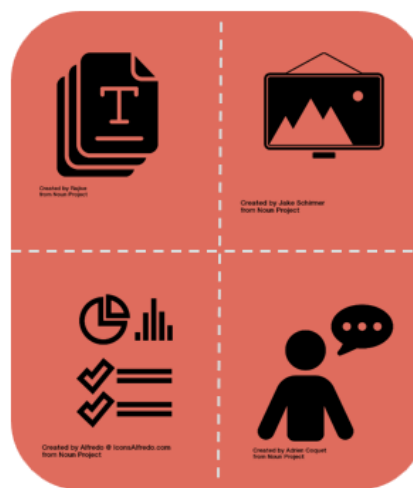
Activity: Think and share

Learning outcome: Students will be able to critique assumptions, biases, and perspectives in (your context).

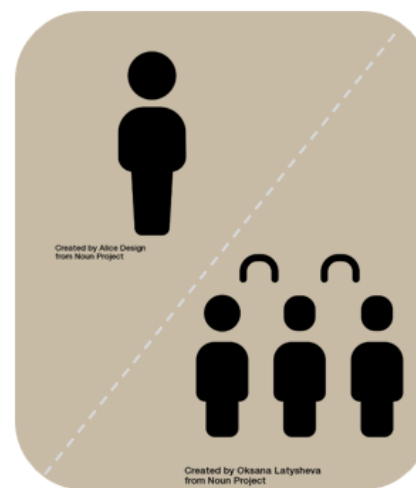
How will students demonstrate their learning?

Constraints:

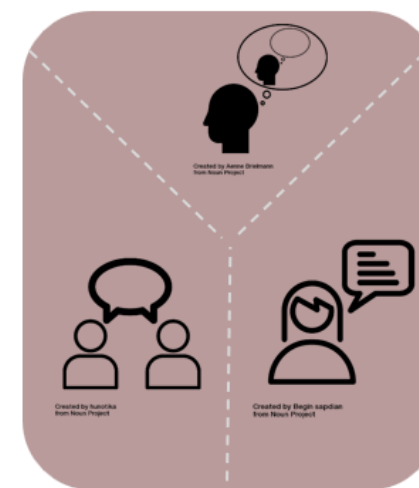
- no essays
- no gen AI



Artifact



Interaction



Feedback

Adapted from [Fenwick & Parsons, 2000](#); [Suskie, 2018](#)



What is generative AI?



“Create a painting representing the concept of a generative AI,”
by Copilot, 2024

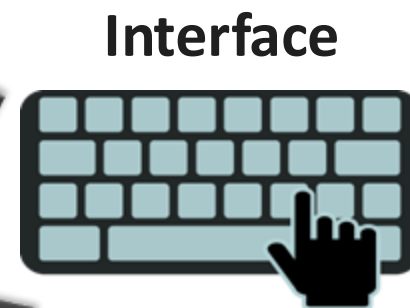
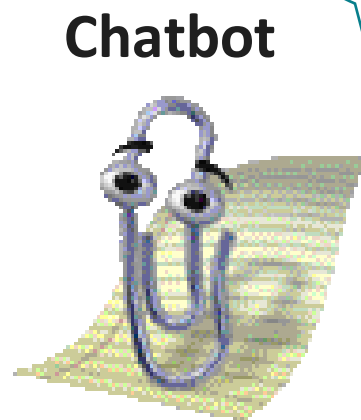
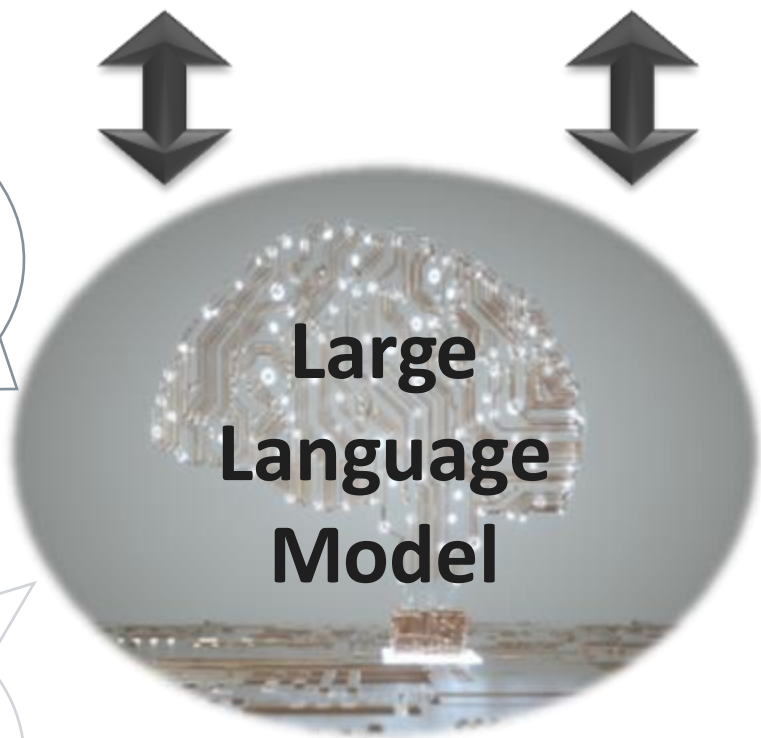
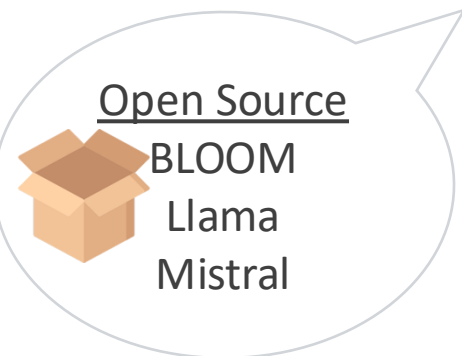
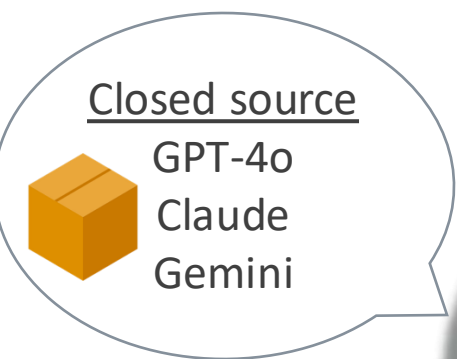
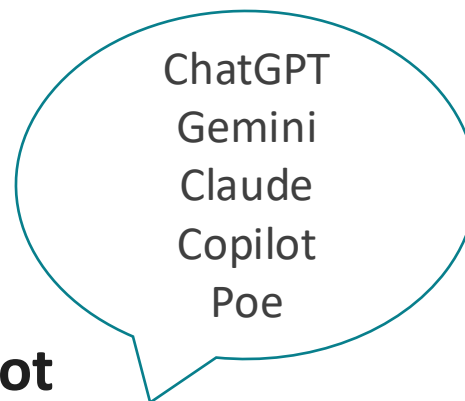
“Generative AI is artificial intelligence (AI) that can **create original content**—such as **text, images, video, audio or software code**—in **response to a user’s prompt** or request. Generative AI relies on sophisticated machine learning models called deep learning models—algorithms that simulate the learning and decision-making processes of the human brain.”

– [IBM](https://www.ibm.com/topics/generative-ai)

Narrow

General

How does it all fit together?



Gen AI is getting really good ... take 1

“Create a photorealistic photo of two students on the McGill University campus. One male student aged 18 is wearing a McGill t-shirt and smiling. One black female student is wearing a sweatshirt with the Montreal Impact logo on it. The background should be the McGill Arts building in September.”



Gen AI is getting really good ... take 2

“Redo the image but make it a fisheye selfie style. Give the female student a nose ring and have the male student wearing a baseball hat backwards.”



What should we be concerned about?

Dataset access

Bias

Normativity

Transparency

Human/Environment cost

Hallucinations

Commercialization/Access

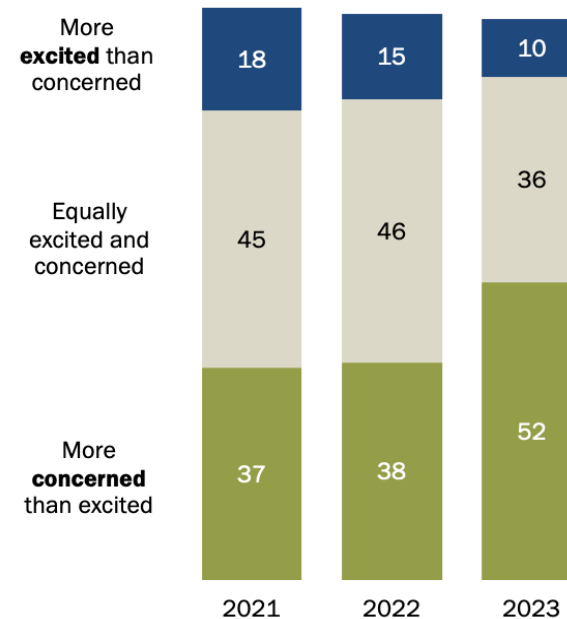
Privacy/Security

Academic integrity

Hype

Concern about artificial intelligence in daily life far outweighs excitement

% of U.S. adults who say the increased use of artificial intelligence in daily life makes them feel ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted July 31-Aug. 6, 2023.

PEW RESEARCH CENTER

Source: [Growing public concern about the role of artificial intelligence in daily life](#), Pew Research Center



The need for ethical frameworks for AI

Transparency

Justice and fairness

Non-maleficence

Responsibility

Privacy



< >
Montréal Declaration
Responsible AI_
< / >

**MONTRÉAL
DECLARATION
FOR A RESPONSIBLE
DEVELOPMENT
OF ARTIFICIAL
INTELLIGENCE
2018**

Source: [Montreal Declaration](#)

Perspective | Published: 02 September 2019

The global landscape of AI ethics guidelines

[Anna Jobin](#), [Marcello Ienca](#) & [Effy Vayena](#)

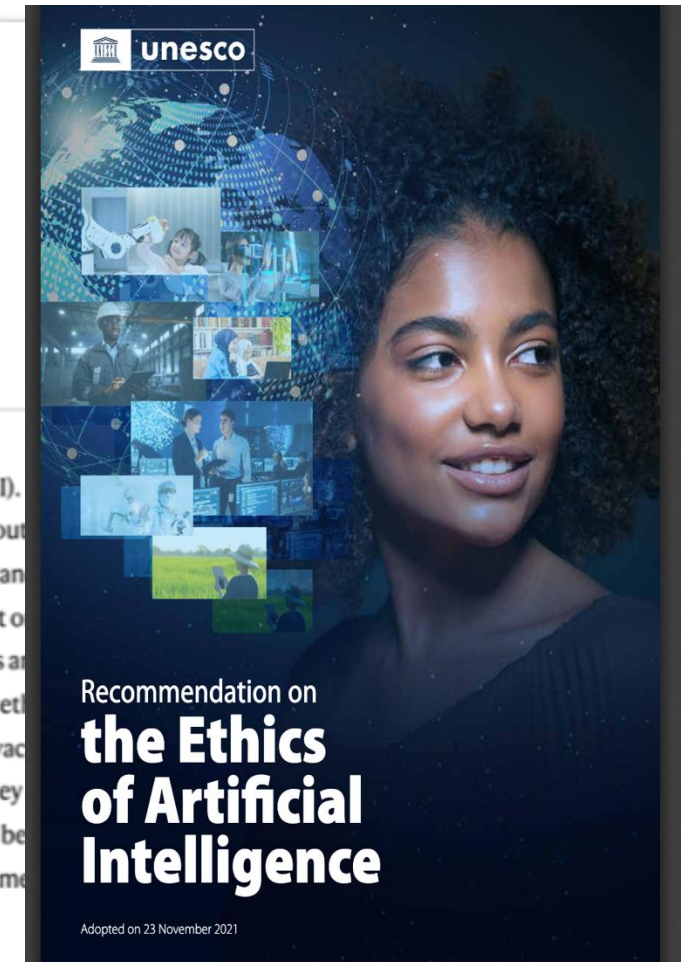
[Nature Machine Intelligence](#) 1, 389–399 (2019) | [Cite this article](#)

49k Accesses | 1030 Citations | 872 Altmetric | [Metrics](#)

Abstract

In the past five years, private companies, research institutions and public sector organizations have issued principles and guidelines for ethical artificial intelligence (AI). However, despite an apparent agreement that AI should be 'ethical', there is debate about both what constitutes 'ethical AI' and which ethical requirements, technical standards and best practices are needed for its realization. To investigate whether a global agreement on these questions is emerging, we mapped and analysed the current corpus of principles and guidelines on ethical AI. Our results reveal a global convergence emerging around five ethical principles (transparency, justice and fairness, non-maleficence, responsibility and privacy) with substantive divergence in relation to how these principles are interpreted, why they are deemed important, what issue, domain or actors they pertain to, and how they should be implemented. Our findings highlight the importance of integrating guideline-development efforts with substantive ethical analysis and adequate implementation strategies.

Source: ([Jobin, Ienca & Vayenna, 2019](#))



Source: [Unesco](#)



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Activity: Explore assessment strategies with AI in or out

Individual reading

Explore some strategies: [Assessment ideas for an AI enabled world](#)

Minute paper

Select one strategy you would like to try in your course.

- a) Why did you choose that one?
- b) How would you implement it?



Buzz groups

In groups, share your strategies and ideas for implementation so that you expand your repertoires.



Assessment the day
after ChatGPT was
launched ...



Thanks go Giphy



Planning assessment in the age of generative AI



Avoid

Focus on ways to prevent use



Design (in/out)


Make use central

Make use irrelevant



Almost all your students are using gen AI

“In 2025, we find that the student use of AI has surged in the last year, with almost all students (92%) now using AI in some form, up from 66% in 2024, and some 88% having used GenAI for assessments, up from 53% in 2024.” ([Freeman, 2025](#))



Higher Education Policy Institute

Student Generative AI Survey 2025

Josh Freeman

Kortext

HEPI Policy Note 61

February 2025

Foreword

Professor Janice Kay CBE, Director, Higher Futures

It is a pleasure to introduce this 2025 study, a welcome repeat of the 2024 AI survey of how full-time undergraduate students are currently using AI tools. It shows that use has soared over the past year, demonstrating that AI tools are used in varied ways in learning and assessment.

It is a positive sign overall: many students have learned more about using tools effectively and ethically and there is little evidence here that AI tools are being misused to cheat and play the system. Students see a range of benefits of using AI tools, from saving time to improving the quality of their work in ways they consider to be personalised, especially outside study hours.

And yet, there are quite a lot of signs that will pose serious challenges for learners, teachers and institutions and these will need to be addressed as higher education transforms. Policies on AI use for assessment are generally clear but, at the same time, students are uncertain about what acceptable AI use looks like, with less than a third stating that their institution encourages them to use it and nearly a third reporting that their institution bans its use. Some students report that they are 'being warned about the potential risks of AI, but [staff] are actively incorporating AI as a creative tool into some of their modules'.

Students want more of the latter. They want more support in their courses to increase their skills in using and managing AI tools, and they also perceive that while more staff are well-equipped to support them than previously, this needs to improve substantially. Peppering through the study is clear evidence of a digital divide, whether women are using AI tools less and for less confident reasons or those with greater means are more able to access premium products.

There are gaps then for higher education institutions: how AI tools are used effectively to support students' learning and engagement, how students become better skilled, how staff are trained to have a deeper working understanding of AI tools and how divides in the use of AI are not allowed to develop and persist. I urge you not only to mull through the data presented here but also to take time to reflect on the conclusions and policy recommendations. I look forward to seeing what happens in the 2026 report.

Executive summary

Building on our 2024 AI Survey, we surveyed 1,041 full-time undergraduate students through Savanta about their use of generative artificial intelligence (GenAI) tools.

In 2025, we find that the student use of AI has surged in the last year, with almost all students (92%) now using AI in some form, up from 66% in 2024, and some 88% having used GenAI for assessments, up from 53% in 2024. The main uses of GenAI are explaining concepts, summarising articles and suggesting research ideas, but a significant number of students – 18% – have included AI-generated text directly in their work.

When asked why they use AI, students most often find it saves them time and improves the quality of their work. The main factors putting them off using AI are the risk of being accused of academic misconduct and the fear of getting false or biased results. Women are more worried about these factors than men, and men report more enthusiasm for AI throughout the survey, as do wealthier students and those on STEM courses. The digital divide we identified in 2024 appears to have widened.

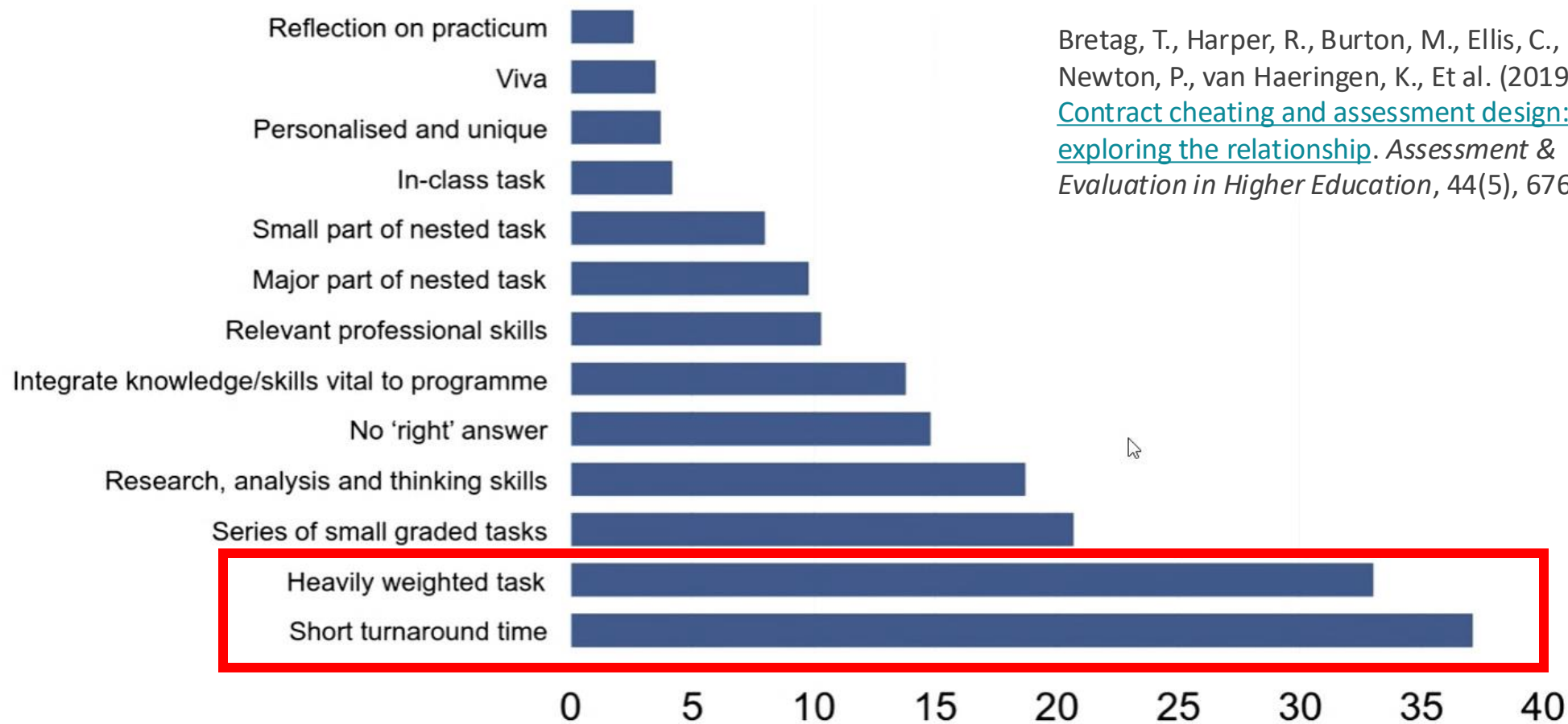
February 2025

1



Supporting academic integrity: Considerations

Students' perceptions of the likelihood of contract cheating (%)



Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., van Haeringen, K., Et al. (2019). [Contract cheating and assessment design: exploring the relationship](#). *Assessment & Evaluation in Higher Education*, 44(5), 676-691.

AI detectors are not the solution

1. Efficacy

available detection tools are neither accurate nor reliable ([Elkhatat et al., 2023](#); [Foltynek et al., 2020](#); [Weber-Wulff et al., 2023](#); [Wiggers, 2023](#))

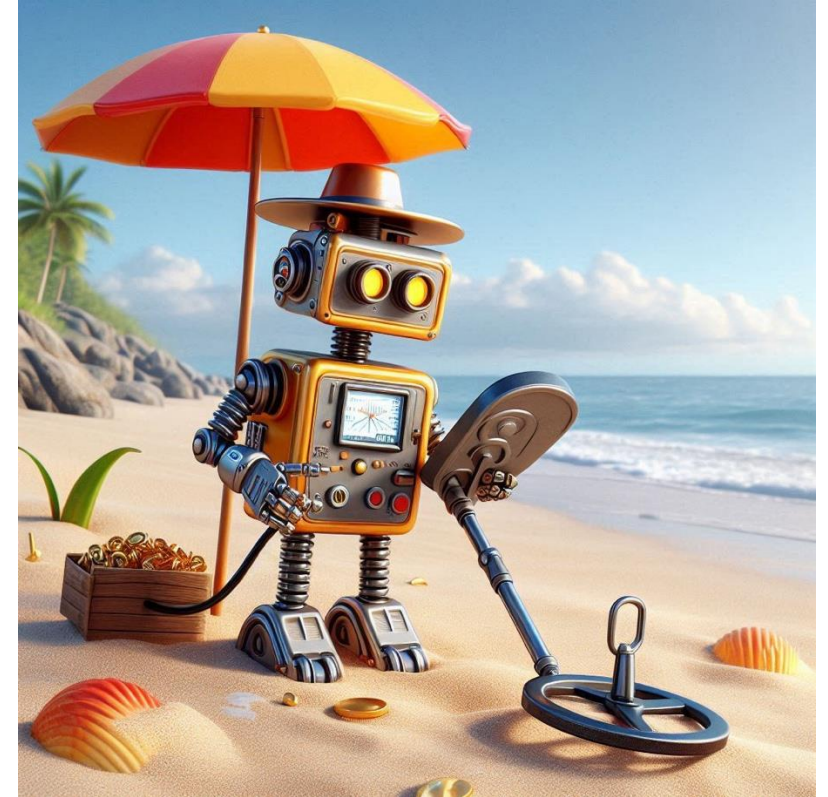
2. False positive rate

“We tested a new ChatGPT-detector for teachers. It flagged an innocent student.” ([Fowler, 2023](#))

“our classifier is not fully reliable” ([OpenAI, 2023](#))

3. Bias

“detectors consistently misclassify non-native English writing samples as AI-generated, whereas native writing samples are accurately identified” ([Liang et al., 2023](#))



“a cartoon robot using a metal detector on a beach,”
Copilot, 2024

New Technology

Excitement, confusion, eagerness, resistance, worry, and other reactions.

Teaching, Learning (and Cheating)

Teachers and students figure out how to use the new tech for teaching, learning, cheating, and more.

Academic Integrity Arms Race

Infographic designed by
Sarah Elaine Eaton
May, 2023

Students Find Workarounds

Students find hacks and share ideas about how to beat the anti-cheating technology.

Anti-Cheating Tech

More tech is developed to catch students using technology to violate academic integrity. Often marketed as a solution to academic misconduct.



It's not about cheating....

Research Article

Validity matters more than cheating

Phillip Dawson, Margaret Bearman, Mollie Dollinger & David Boud

Published online: 08 Aug 2024

Cite this article <https://doi.org/10.1080/02602938.2024.2386662> Check for updates

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Abstract

Cheating attracts a significant amount of attention in conversations about assessment, and with good reason: if students cheat, we cannot be sure they have met the learning outcomes of their course. In this conceptual article we question the attention given to cheating as a concept and argue that the broader concept of validity is a more important concern. We begin by questioning what cheating is, why it is wrong, and how justifiable the approaches used to address cheating are. We then propose a reframing of cheating as subsumed by assessment validity. In this view, cheating is addressed without moralising, as part of the broader positive mission of assurance of learning. This perspective highlights how attempts to improve validity by addressing cheating can sometimes make validity worse, for example when an anti-cheating technology reduces cheating but creates problems for inclusion. In shifting focus from cheating to validity, we hope to draw renewed attention to what matters most in assessment: that we know our graduates are capable of what we say they are.

Keywords: Academic integrity cheating assessment validity assessment security artificial intelligence

Key points:

- Cheating threatens assessment validity
- Shift focus to valid assessments
- Anti-cheating compromises inclusivity
- Design assessments to align with learning outcomes

(Dawson et al., 2024)

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Planning for assessment in the age of Generative AI



Avoid

Focus on ways to prevent use



Design (in/out)

Make use central

Make use irrelevant



Designing assessments: Design AI IN

1	NO AI	The assessment is completed entirely without AI assistance in a controlled environment, ensuring that students rely solely on their existing knowledge, understanding, and skills You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.
2		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. You may use AI for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.
3		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. 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.
4		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. 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.
5		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. You should use AI creatively to solve the task, potentially co-designing new approaches with your instructor.

“The Scale provides a nuanced framework for integrating AI into educational assessments.”

Read the description of each level. Name each of the descriptions with one of these labels:

- AI COLLABORATION
- AI EXPLORATION
- AI PLANNING
- FULL AI



Perkins, Furze, Roe & MacVaugh (2024). The AI Assessment Scale

<https://aiassessmentscale.com/>

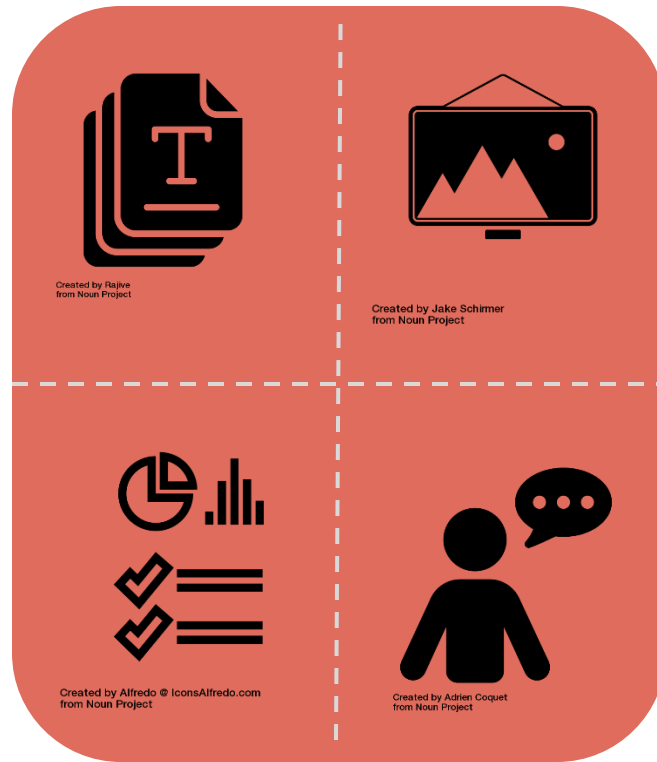


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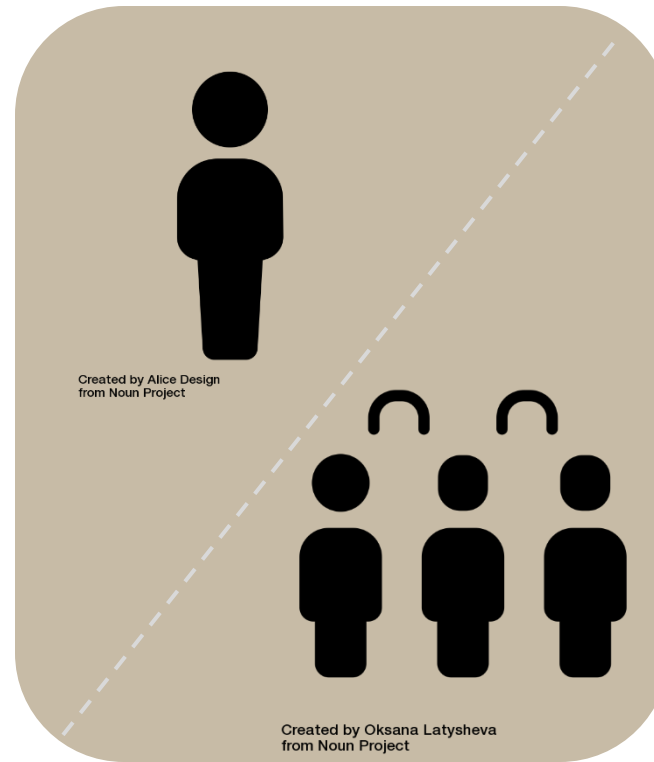
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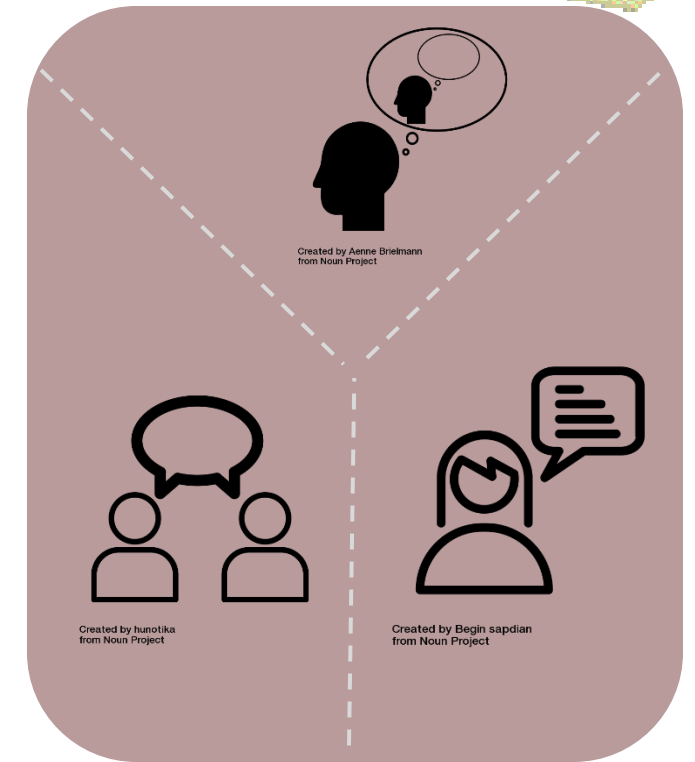
Demonstrate learning in a variety of ways



Artifact



Interaction

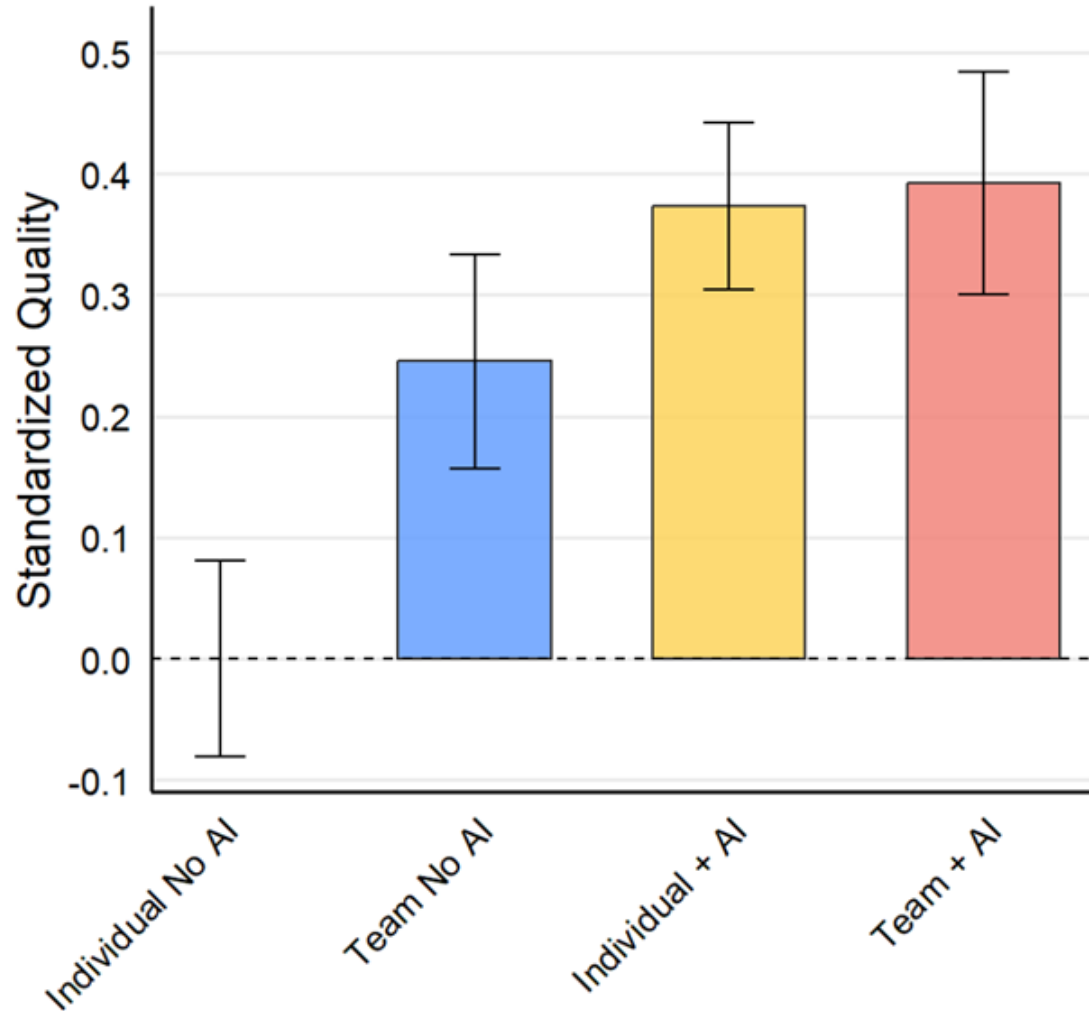


Feedback

(Adapted from [Fenwick & Parsons, 2000](#); [Suskie, 2018](#))



AI is best as a collaborator



The Cybernetic Teammate: A Field Experiment on Generative AI Reshaping Teamwork and Expertise

Fabrizio Dell'Acqua
Charles Ayoubi
Hila Lifshitz
Raffaella Sadun
Ethan Mollick
Lilach Mollick

Yi Han
Jeff Goldman
Hari Nair
Stew Taub
Karim R. Lakhani

Abstract

We examine how artificial intelligence transforms the core pillars of collaboration—performance, expertise sharing, and social engagement—through a pre-registered field experiment with 776 professionals at Procter & Gamble, a global consumer packaged goods company. Working on real product innovation challenges, professionals were randomly assigned to work either with or without AI, and either individually or with another professional in new product development teams. Our findings reveal that AI significantly enhances performance: individuals with AI matched the performance of teams without AI, demonstrating that AI can effectively replicate certain benefits of human collaboration. Moreover, AI breaks down functional silos. Without AI, R&D professionals tended to suggest more technical solutions, while Commercial professionals leaned towards commercially-oriented proposals. Professionals using AI produced balanced solutions, regardless of their professional background. Finally, AI's language-based interface prompted more positive self-reported emotional responses among participants, suggesting it can fulfill part of the social and motivational role traditionally offered by human teammates. Our results suggest that AI adoption at scale in knowledge work reshapes not only performance but also how expertise and social connectivity manifest within teams, compelling organizations to rethink the very structure of collaborative work.

Keywords: Artificial intelligence, Teamwork, Human-machine interaction, Productivity, Skills, Innovation, Field experiment.



**Harvard
Business
School**

(Dell'Acqua et al., 2025)



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Activity: Develop flexibility by designing AI in and out

OR

Learning outcome: Analyze quantitative and/or qualitative data using appropriate methods discussed in the course.

Assessment task examples:

- lab report
- analysis of interview transcripts
- observation report
- research brief
- case study analysis

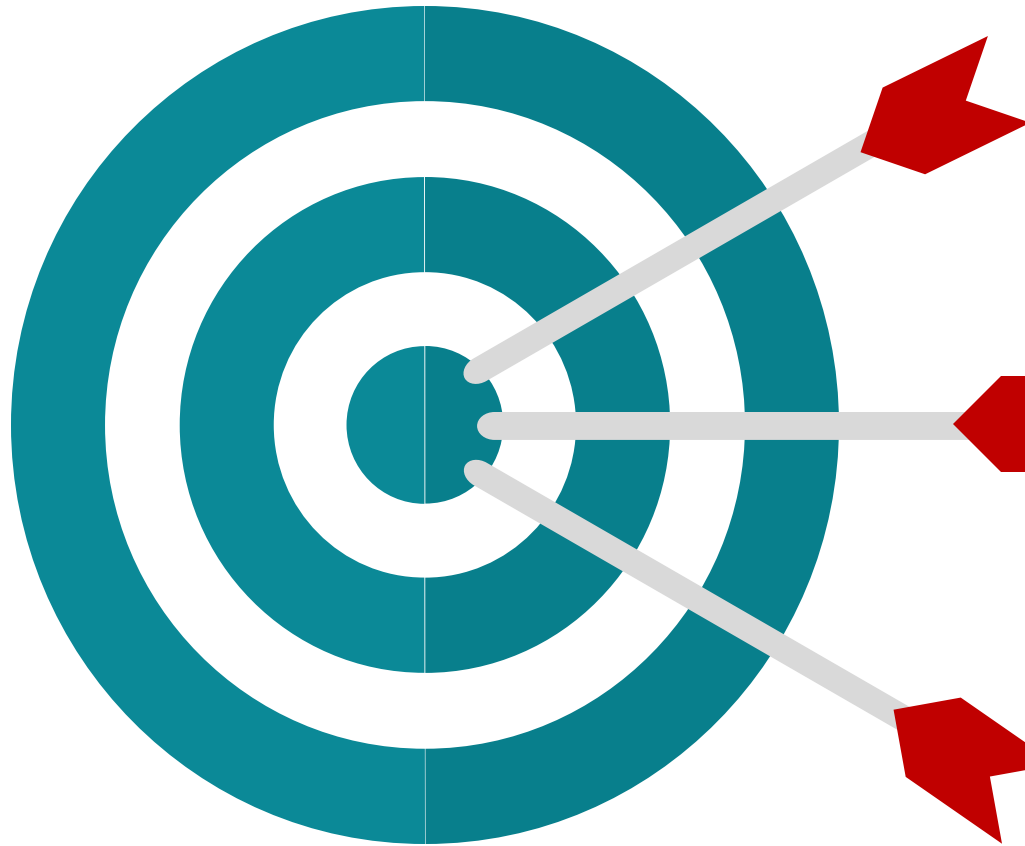
Learning outcome: Critique assumptions, biases, and perspectives

Assessment task examples:

- critical essay
- debate
- position paper
- blog post
- reflective journal



Session outcomes revisited



Make informed decisions about designing gen AI in or out of assessment tasks

Apply constructive alignment to assessment tasks where gen AI use has been designed in or out

Work with a framework to build gen AI into assessment design

What is one strategy or idea from today's session that you plan to implement?



In conclusion, courtesy of Copilot

Prompt:

Create a poem that articulates the main themes of the powerpoint file focusing on the importance of constructive alignment, backwards design and designing AI in and out of assessments. [UPLOAD FILE]
Shorten to only 4 stanzas.

Begin with outcomes, clear and true,
Let purpose guide what students do.
Align each task with goals in mind—
This is the heart of **design aligned**.

Backwards design—a thoughtful start,
From end to means, we chart the art.
Assessments shaped to show the way,
Not just to grade, but to convey.

AI now joins the learning space,
A tool, a threat, a mirrored face.
Design it in, or keep it out,
But let intention lead, not doubt.

Let students show their minds in full,
With varied forms, not just one rule.
Authentic tasks, with feedback wide—
Where learning lives, and truth can guide.

TAP is here to help!



[Register for upcoming events](#)



Access resources

[Copilot at McGill](#)

[Generative AI for Teaching and Learning](#) - myCourses module

[Using generative AI in teaching and learning](#) – TL KB article



Connect with a colleague



[Book a consultation](#)





References

A complete list of references is in the [handout](#).