

INSPIRATION SESSION: AI LITERACY IN THE CLASSROOM

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WEEK OF EDUCATION
THE HEARTBEAT
OF LEARNING 

19-22 MAY, UT CAMPUS

REGISTER: [UT.NL/EDWEEK](https://ut.nl/edweek)

UNIVERSITY OF TWENTE





TODAY'S *INSPIRATION* SESSION



Reflect on the role of AI literacy in our education



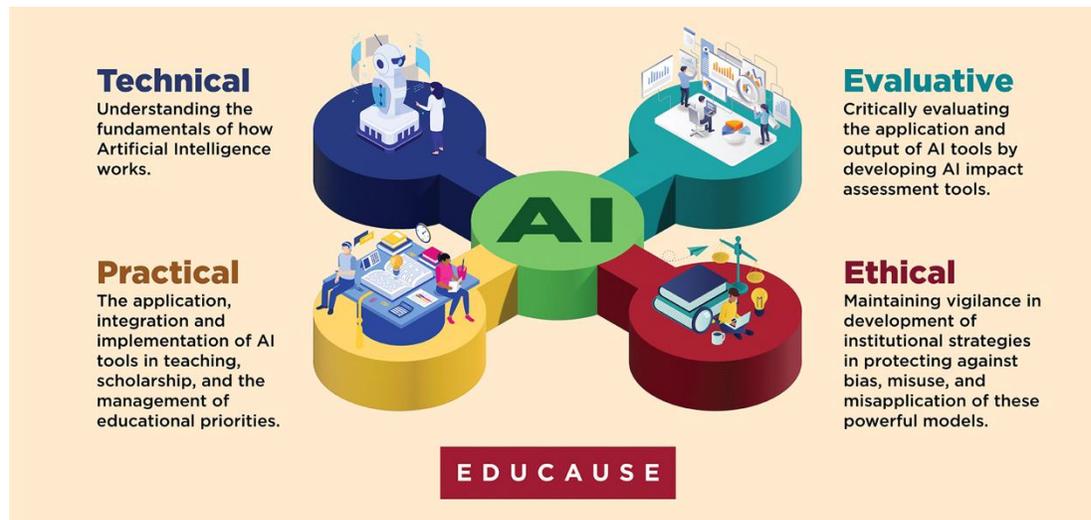
What AI literacy *can* look like in the classroom
Examples and resources
Share your experiences



Possible next steps

WHAT IS 'AI LITERACY'?

The *knowledge, skills, and attitudes* that enable people to use, create, and evaluate AI technologies effectively and responsibly.

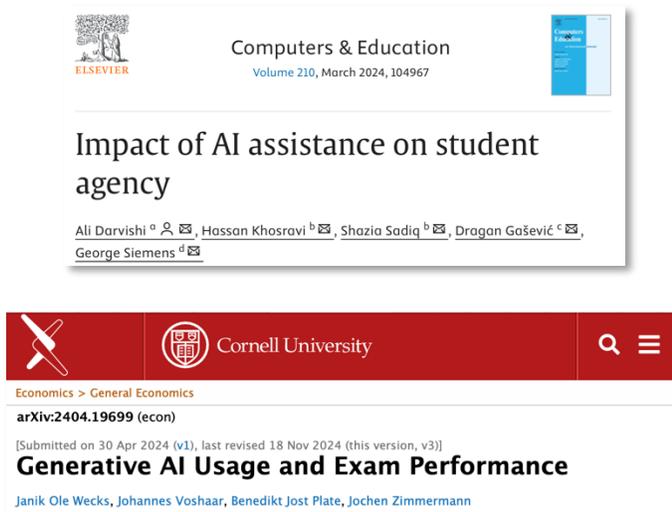


 Community
AI & Data
<https://npuls.nl/en/ai-and-data/>

<https://www.educause.edu/content/2024/ai-literacy-in-teaching-and-learning/defining-ai-literacy-for-higher-education>

WHY AI LITERACY?

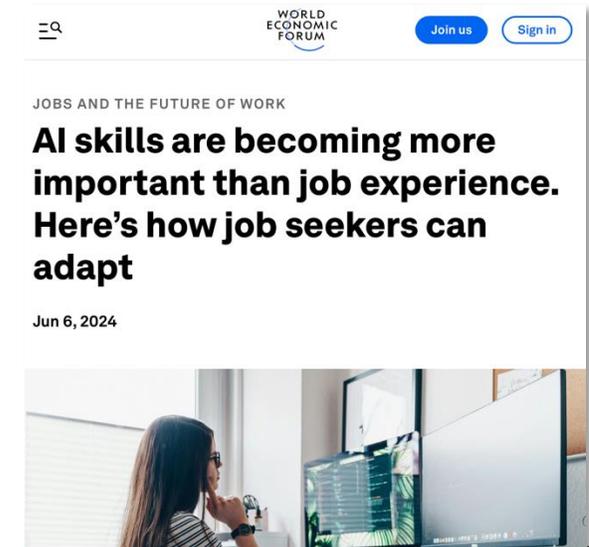
AI offers benefits, but students may use it **ineffectively** without guidance



Promoting **academic integrity**

"We are not sure of what is permitted and what is not"
BMS Input Session
Mar 2025

Pervasiveness in human life



TWO POSSIBLE FUTURES

(A)
**WE DON'T TEACH AI
LITERACY**

(B)
**WE TEACH AI
LITERACY**

Learners':

- Employability
- LLL and adaptability
- Workplace decision-making, implementation, design
- Civic agency

WHAT DOES IT MEAN TO 'TEACH' AI LITERACY?

CELT RESOURCE HUB 'AI IN EDUCATION'



Artificial Intelligence (AI) has a pervasive and lasting impact on education. This resource hub compiles essential information and resources to help UT teachers navigate the changes brought about by AI in education.

Structure of the Hub

The hub is organised around the following thematic areas. Click on the icon to go to the relevant section.

 Fundamentals <i>The basics of (Gen)AI and its safe and responsible use</i>	 AI as a Teaching Assistant <i>Increase your productivity with AI</i>	 Teaching AI Literacy <i>Integrate AI literacy in the curriculum and the classroom</i>	 AI and Assessment <i>Preserve assessment quality in times of AI</i>
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▼ AI Literacy in the Curriculum and the Classroom

-  What are the arguments and research evidence for and against the inclusion of AI in educational programmes?
-  What is 'AI literacy' and what does it mean for students?
-  How to incorporate AI literacy into the curriculum?
-  How to incorporate AI literacy into individual courses?
-  Activities dedicated to AI literacy
-  Activities fostering AI literacy in conjunction with skill/knowledge development
-  Activities fostering AI literacy by using AI as a learning assistant
-  Incorporating AI into assessment activities
-  AI literacy: discussion and sharing

IMPARTING AI-SPECIFIC KNOWLEDGE AND SKILLS

E.g. What is (Gen)AI? How does it work? How to prompt it effectively? What are the possible sources of bias?



Implication of data set selection in generative AI

Dr. Maryam Amir Haeri
Assistant Professor
BMS / CoDE Section

https://canvas.utwente.nl/courses/15815/pages/activities-dedicated-to-ai-literacy?module_item_id=549650



<p>9:00 am to 10:00 am</p> <p>Introduction to Generative AI</p> <p>Learning Outcomes:</p> <ul style="list-style-type: none"> • How neural networks and Large Language Models (LLMs) function. • The complexity involved in crafting effective prompts for AI. • Critical insights into the limitations and potential biases of these models. • Strategies for assignments that help students develop AI literacy, including analyzing and producing machine-made stories, and writing assignments that critically engage with AI capabilities. 	<p>Institute Introduction: 5 minutes</p> <p>Introduction to Generative AI 10 minutes Let Us Show You How GPT Works</p> <p>Train Your Own Neural Network 10 minutes</p> <ul style="list-style-type: none"> • Activity: Google's Quick Draw <p>Introduction to Prompting 15 minutes</p> <ul style="list-style-type: none"> • Activity: Say What You See <p>A Pedagogical Approach to Build AI Literacy with Students 15 minutes</p> <ul style="list-style-type: none"> • Assignment: From Consumer to Creator: Analyzing and Producing Machine-Made Stories • Assignment: Writing Against Generative AI
<p>10:00 am to 11:00 am</p> <p>Ethical Challenges Posed by Generative AI</p> <p>Learning Outcomes:</p> <ul style="list-style-type: none"> • Understanding the broader scope of generative AI beyond text generation, including its ethical, legal, and societal implications. • Recognizing the potential for AI to be used in spreading propaganda and 	<p>PPT of Ethical Challenges 20 minutes</p> <p>Developing AI literacy for Images 10 minutes</p> <ul style="list-style-type: none"> • Activity: Which Face is Real? <p>Consider How Misinformation is Spread Online 10 minutes</p> <ul style="list-style-type: none"> • Activity: The Bad News Game <p>Explore an Ethical Challenge 20 minutes</p> <ul style="list-style-type: none"> • Activity: Ethical Challenges

https://docs.google.com/document/d/1yP74rO9IWwtmHq3xw_fN_CasZ7ScPSFlIQ5w5BIYX_Gg/edit?tab=t.0

EXAMPLES AND ACTIVITIES

Making concepts and principles tangible in the context of students' learning tasks and the professional domain.

AI Limitations: “AI can provide a generic output but struggles with the specifics”

Example: How AI fails to summarise the conclusions of your paper

Activity: Ask students to use ChatGPT to write a short paragraph comparing two niche theories from their course.

Responsible Use: “If you use AI in a non-critical way, you might become overreliant”

Example: AI-first vs human-first approach to brainstorming ideas for your seminar

Activity: Ask a group of students to start working on their assignment with AI and another group without AI. Compare their approaches through critical questions

EMBEDDING AI INTO TLAS

Integrate AI into classroom activities and guide their critical reflection.

File preview **AI & Peer Feedback Activity: (20 minutes)**

- In pairs
- Read each other's reflection paper and grade according to the rubric
- Based on your own reflection, come up with a prompt for ChatGPT to create a reflection paper for you. Compare your own writing to ChatGPT's
- Discuss what AI/you could have done better

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https://canvas.utwente.nl/courses/15815/pages/activities-fostering-ai-literacy-in-conjunction-with-skill-slash-knowledge-development?module_item_id=549651

GENERATIVE AI TEACHING ACTIVITIES

These activities were created or used by faculty and instructors at Washington University in St. Louis (WashU). The materials are based on using AI (Artificial Intelligence) as a teaching tool. [Contact the Center for Teaching and Learning \(CTL\)](#) with questions about this collection.

Jump to:
2024

Teaching Activities from 2024

[PDF](#) [Activity: Students find conceptual errors in AI output](#), Janie Brennan
Chemical Engineering | Chemistry | Engineering | Mechanical Engineering | Physics

Instructor asks ChatGPT questions related to a key concept to find one where ChatGPT has conceptual errors. Ask students to find the errors and explain them.

[PDF](#) [Employing AI to enhance in-class role playing scenarios](#), Eric Fournier
Arts and Humanities | Business | Education | Life Sciences | Physical Sciences and Mathematics | Social and Behavioral Sciences

Role playing can deepen student's engagement with course content and help them develop skills while learning course material. Students will use AI to develop their characters and help them craft compelling arguments in the role-play scenarios

https://openscholarship.wustl.edu/ai_teaching/

AI IN PROJECTS AND CBL

- Support organisational tasks, e.g. minute-taking, process tracking
- Supporting knowledge work
- AI-focused (and sustainable) problems/challenges
- Impact of AI technology on the domain

Incorporating Generative AI in Project-based Learning:
Case Study of How Students Utilise Generative AI in Tech-enabled Projects

cdtltd Paper Presentations

October 21, 2023 AI and Education, Generative AI, interdisciplinary learning, project-based learning, technology-enabled project

Kate Sangwon LEE* and KHOO Eng Tat
Engineering Design & Innovation Centre
*katelee@nus.edu.sg

<https://blog.nus.edu.sg/hecc2023proceedings/incorporating-generative-ai-in-project-based-learning-case-study-of-how-students-utilise-generative-ai-in-tech-enabled-projects/>

IMPLEMENTING CDIO STANDARDS THROUGH CHALLENGE-BASED LEARNING: A CASE STUDY IN AI ENGINEERING EDUCATION

Mourad Zérai, Sonia Mosbeh

Mathematical department, Computer science department, ESPRIT School of engineering

https://cdio.org/sites/default/files/documents/208_CDIO%202024%20Proceedings.pdf

PROVIDING SCAFFOLDS

Providing students with instruments that support effective (learning) behaviour and performance.



Checklist: Am I ready to use genAI?

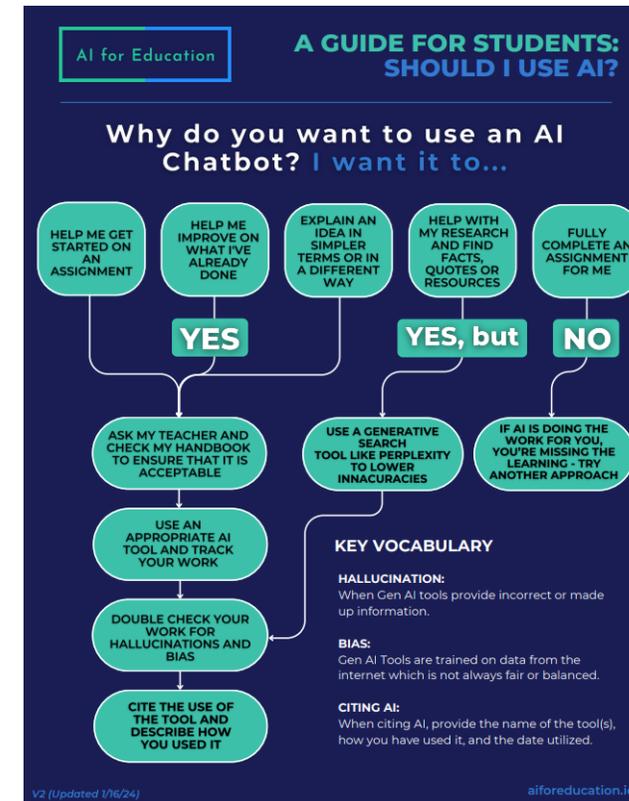
Before you use generative AI (genAI), first consider your purpose for using it and how it will benefit your learning. Ensure that you are aware of the genAI's capabilities, how to use it ethically, and some of the associated risks with using it.

The following checklist is for Deakin coursework students.

My learning

- 1 Am I allowed to use genAI in this unit, and how am I allowed to use it? Check my unit site instructions or ask my unit chair.
- 2 What are the capabilities of the tool and what are the requirements of my assessment? Is it the best tool for the job? Do I need to use genAI at all? Be clear on your purpose and the benefits.
- 3 Do I have a strategy for developing effective and iterative prompts? Quality output is dependent on quality prompts.
- 4 Is this tool saving me time or is it a distraction from my main task? Is it possible I am over-relying on genAI?
- 5 Am I using genAI actively, selectively, critically? How can I use genAI in a way that helps me to develop skills in critical thinking and writing?
- 6 Am I using genAI to explore and engage with discipline knowledges in new and creative ways that enhance my learning by:
- focusing on the learning experience and new creative and critical processes?
- working through obstacles, frustrations and mistakes as learning opportunities?
- 7 Have I reached out to my teaching staff, Study Support or the Library for further support in how to best use genAI?

<https://www.deakin.edu.au/students/study-support/study-resources/artificial-intelligence/checklist-am-i-ready-to-use-genai>



<https://libraryguides.uwsp.edu/c.php?g=1348337&p=9962892>

SUMMARISING: SOME GENERAL GOOD PRACTICES

- Embed AI literacy in the disciplinary context of your course.
- Facilitate the elaboration of key concepts and principles through examples and activities
- Provide performance supports (checklists, guidelines, prompts, etc.)
- Always guide reflection to ensure learners “get” what you want out of the activities
- Coordinate at the programme level to avoid redundancies and cover AI literacy aspects most relevant to students
- Learn *with* your students



AND NOW WHAT?

Some possible next steps:

- For basic AI literacy: Explore FutureLearn's free AI courses.
- Explore the resources on the AI hub
(please, *share your resources and examples!*)
- Innovation project support (consultations, grant applications, implementing new tools)
- Programme or team workshops and redesign support
- BMS AI Learning Community