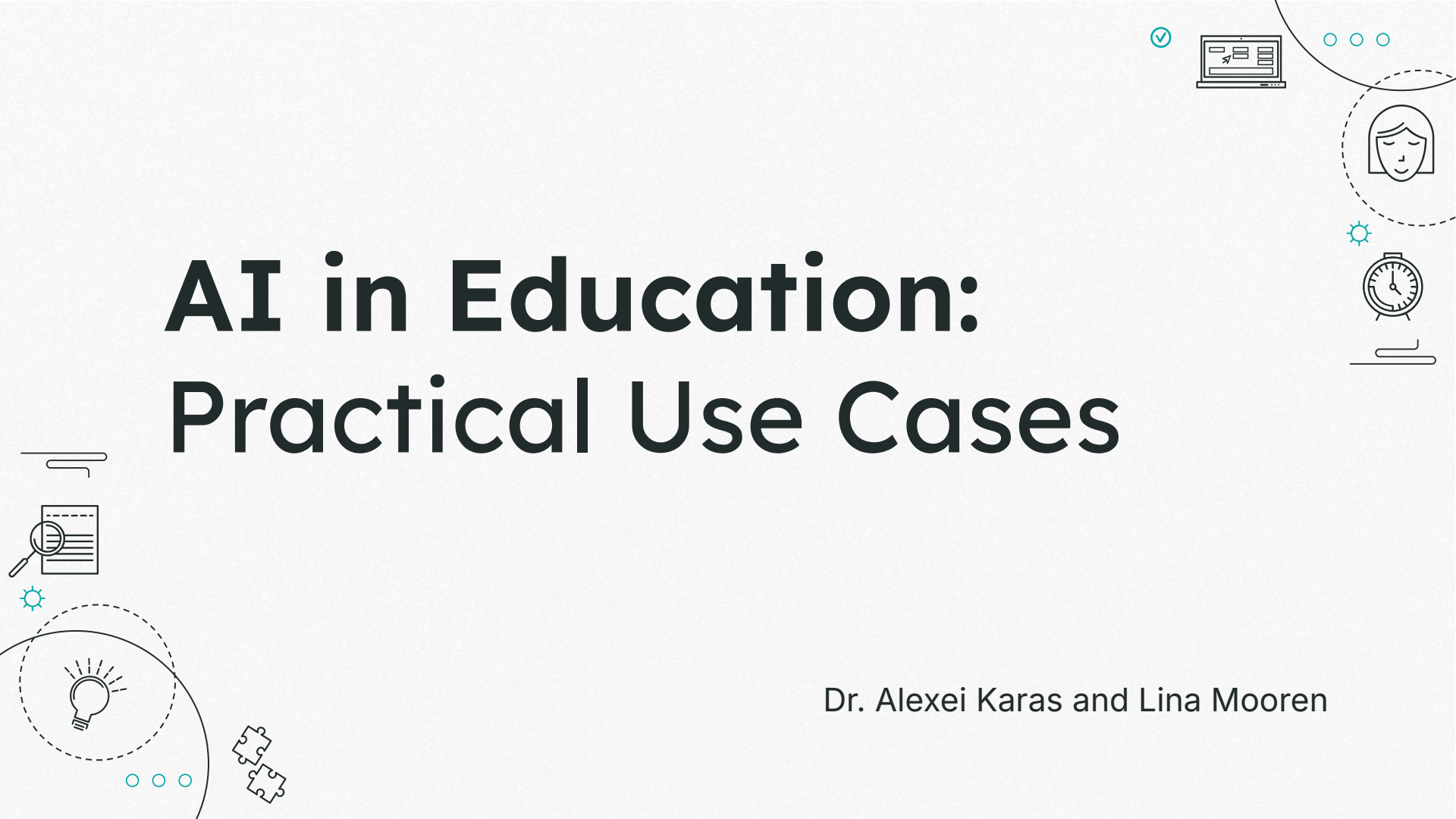


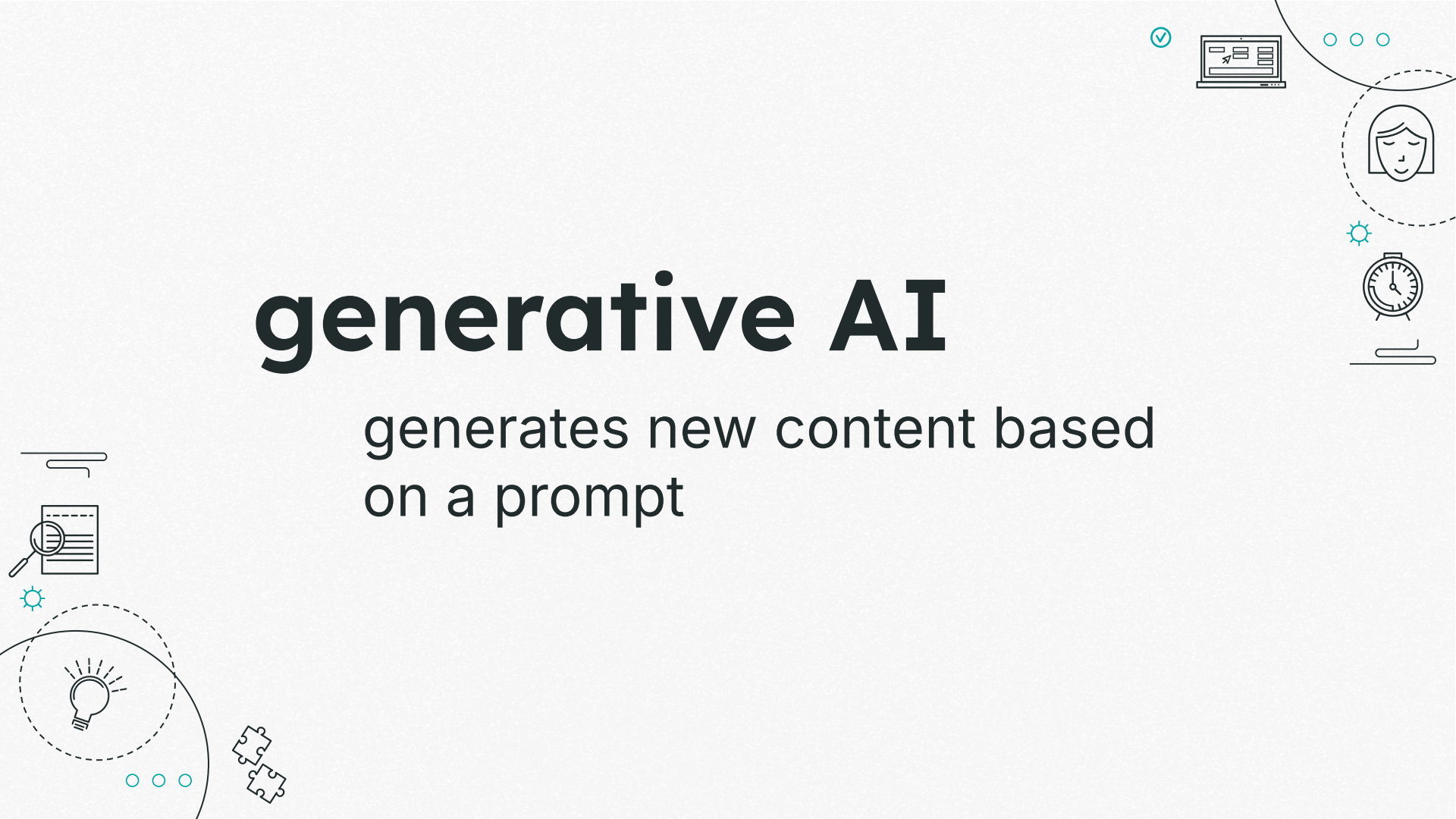
AI in Education: Practical Use Cases

Dr. Alexei Karas and Lina Mooren



generative AI

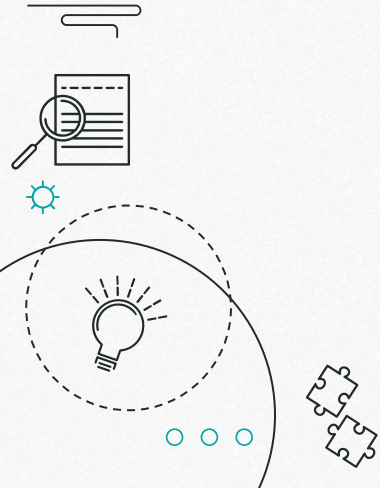
generates new content based
on a prompt



there are many kinds of **generative AI**

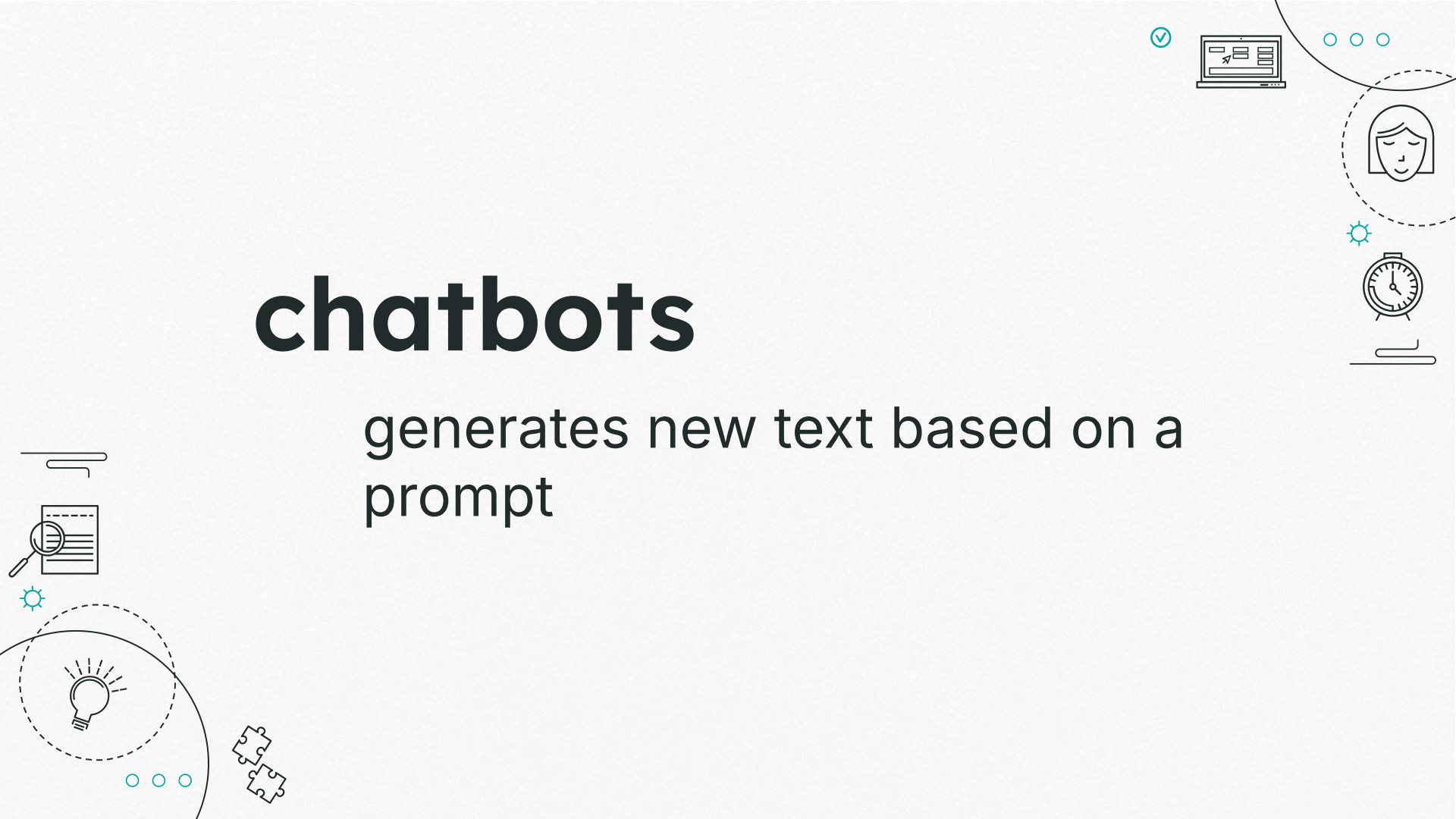
for example:

- DALL·E/Adobe Firefly for images
- Replit for code
- Soundraw for music
- Pictory for videos



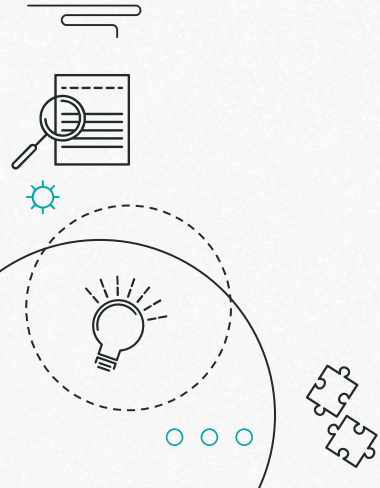
chatbots

generates new text based on a
prompt



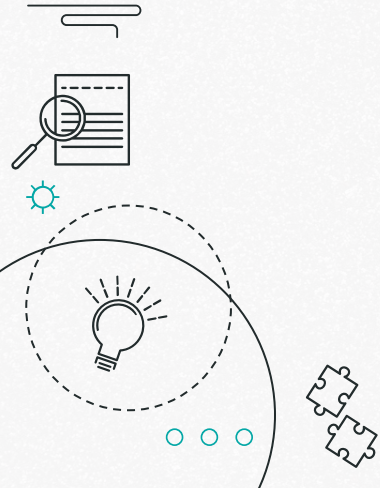
there are several chatbots

e.g. Copilot, Gemini, ChatGPT, DeepSeek



ChatGPT

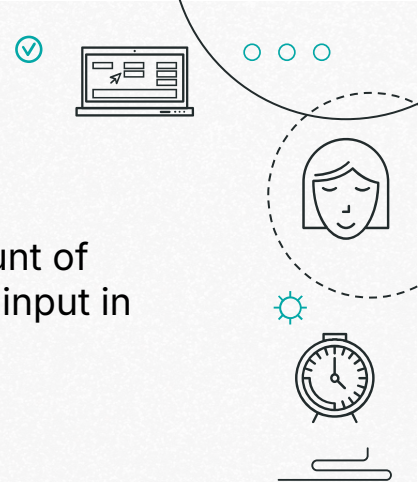
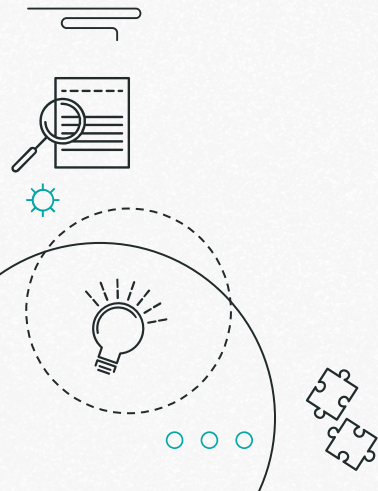
generates answers based on
probability



ChatGPT

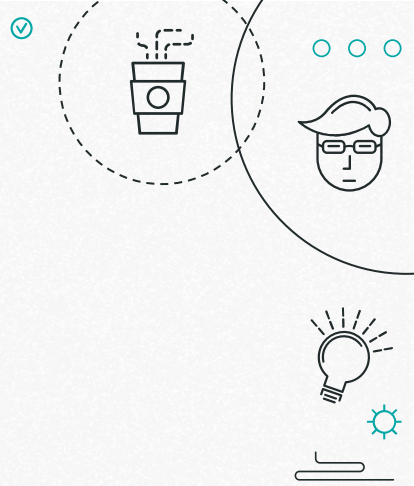
is a generative pre-trained
transformer

trained with a large amount of
internet data and human input in
different stages



Push AI to Lie

An introductory exercise (15m)



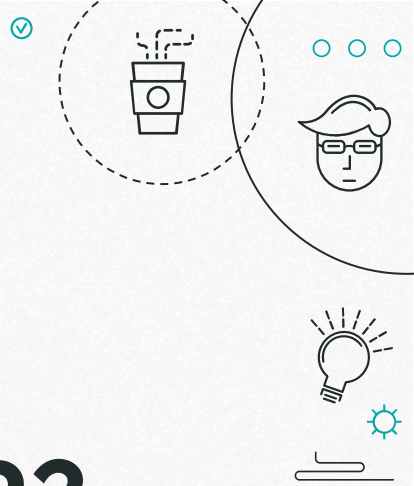
Push AI to hallucinate

1. Purpose: To build understanding around AI's tendency to hallucinate, especially with those less experienced with AI.
2. Try and convince AI of something that is not true. Try to figure out with what kind of 'truths' this is possible with.

Ex. "Almere lies on the North Sea" worked at first but not anymore.



What do we do at UCR?



The AI Assessment Scale

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 PLANNING	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 COLLABORATION	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	FULL AI	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 EXPLORATION	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.



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



WANT TO LEARN MORE ABOUT USING AI?
NOT SURE HOW TO MAKE THE MOST OF CHATGPT?

JOIN OUR UPCOMING

AI WORKSHOPS

HOSTED BY DR. ALEXEI KARAS & LINA MOOREN

NEXT SESSION: FRIDAY 14/02
13:10-13:35 IN A-21



FOR MORE INFORMATION, CHECK OUT
@DATACENTERUCR

UPCOMING AI WORKSHOPS

14 FEBRUARY

RESEARCH QUESTION GENERATION

28 MARCH

COLLABORATIVE WRITING WITH AI

4 APRIL

MARKETING WITH AI

FOR MORE INFORMATION, SEE
@DATACENTERUCR



Practical Use Cases in Education



Brainstorming

Research question generation and brainstorming.

Role-playing

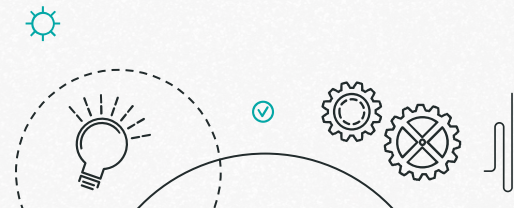
Role-play a conversation where you discuss an issue with someone with an opposing perspective.

Collaboration

Writing collaboratively with AI.

Question Generation

Create low-stakes test questions (e.g. using open-source learning materials).



Brainstorming with Research Applications

1. Upload 'requirements' or give a description of the research paper.
2. Ask for research gaps, perhaps with a specific focus (ex. "Research gaps related to climate change in econometric research").
3. Ask it to determine potential research questions (and data sources).
4. Once you narrow it down, ask for potential variables of importance and literature about those variables/your topic.



Role-play a conversation

1. Purpose: To practice holding a conversation with someone who has a different viewpoint on a controversial issue.
2. Ask "Could you help me practice talking with someone who has a different viewpoint? What do you need to do that effectively?"
3. Ask for feedback on your performance.

Example Prompt: *"I would like to do a role-play where we have a conversation about climate change, and you play the other person. I personally worry a lot about it and want more political action to be taken. I want to talk to someone who thinks climate change is nonsense and that no money should be spent on it. I want the other person to be open to a constructive conversation but not be convinced. I want to practice having a respectful discussion. It's an informal conversation with a stranger. I would like you to start the conversation so I can respond."*



Writing Collaboratively with AI

1. Use AI as a starting point for your writing.
2. Or, use AI as a writing coach.
3. Or, use AI to change the tone/audience/form of your writing.

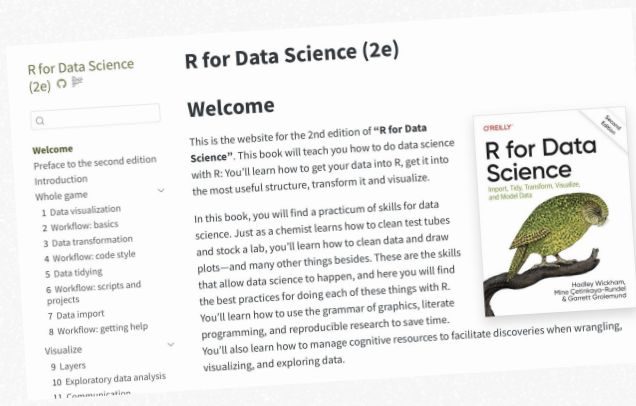


Generating Test Questions

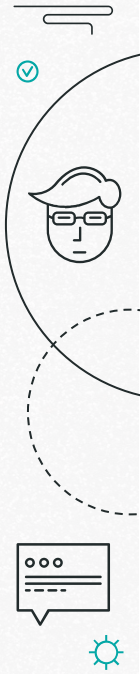
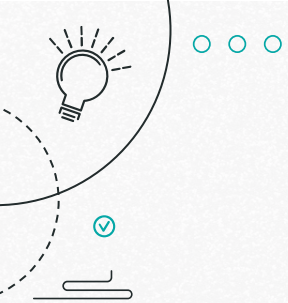
1. Upload either open-source content (ex. CORE textbook) or materials you created (ex. slides, notes, summaries).
2. Ask AI to generate questions on the basis of that content.

These can be based on Bloom's taxonomy.

These can be multiple choice, short-answer or long-answer.



Thank you!



Further research

- [Prompt Library](#)
- [Patient Simulator](#)
- [Ethan Mollick Blog](#)
- [AI Assessment Scale](#)

