AI FOR EDUCATION

Lesson 1: Interview a Chatbot

Digital & Print Learning Packet

Pilot: Version 1.4

Lesson Plan

Length:	90 mins	**Grade range:**	6 – 12
Subject areas:	English (ELA), Computer Science (ICT), Humanities,		
Delivery method:	In-person; hybrid; remote/distance		

Core Components

Lesson Overview

In this hands-on lesson, students will be introduced to the functions, opportunities, and risks of large language model (LLM) chatbots and broader artificial intelligence (AI).

After identifying AI and chatbots they already interact with, students will draft questions and 'interview' a chosen LLM chatbot. At the end of the lesson, students will peer review and reflect on their interviews.

Resource Requirements

Lesson requires 1:1 computers or laptops with an internet connection.

Students require Google or Microsoft accounts (e.g., emails) for ChatGPT sign-in.

Learning Intentions

By the end of the lesson, students will be able to:

- ☐ Identify AI and chatbots they already interact with.
- ☐ Create and use prompts to interview a chatbot about its function and the opportunities and risks of its use and further development.
- ☐ Peer review one chatbot interview and reflect on the opportunities and risks of the technology.

Success Criteria

During the lesson, students:

1. Share and record examples of AI and chatbots they already know and/or interact with.
2. Draft questions on the power and potential of artificial intelligence (AI).
3. Use questions and prompt engineering to conduct, record and share a chatbot interview.
4. Peer review one other student's chatbot interview.
5. Produce a written or oral reflection on the risks and opportunities of LLM chatbots and AI.

Curriculum Standards

Common Core Standards (US)		International Standards		
ELA/Humanities	Computer Science	ISTE Standards	British Standards	AUS Standards
CCSS.ELA-Literacy.CCRA.R.7 CCSS.ELA-Literacy.CCRA.W.1 CCSS.ELA-Literacy.CCRA.SL.3	CSTA.CS.K-2.CT.1 CSTA.CS.3A.IC.1 CSTA.CS.2DL.CT.2a	ISTE.S.DC.2a ISTE.S.DC.1b ISTE.S.DC.2a	CO3: Digital Literacy ENG: Key Stage 3	AC9E8LY05 AC9TDE8K02 AC9HE8S01

Learning Sequence

Section	Timing	Session Activity
Hook	5 mins	◻ Artificial intelligence brainstorm to connect with student prior knowledge. Done independently (or in pairs) before group share.
Learning Intentions	2 mins	◻ Share learning intentions and success criteria. ◻ Outline norms and expectations of the lesson.
Definitions & Prior Knowledge	15 mins	◻ Pre-reading vocabulary: 'What is a chatbot?' ◻ Read: 'What is a chatbot?' ◻ Multiple choice: 'What is a chatbot?' Followed by answer review.
Chatbot Interview: Prompt Creation	15 mins	◻ Outline of chatbot interview task and prompt engineering examples. ◻ Students use BINGO template to create questions that cover key areas on the development, function, risks, opportunities of chatbots.
Chatbot Interview	30 mins	◻ Students follow steps to sign up to ChatGPT. ◻ Students conduct chatbot interviews using prepared questions and prompt engineering. ◻ Differentiation: high-level students are encouraged to use follow-up questions. Prompt engineering to allow multiple entry points.
Peer-Review	10 mins	◻ Students swap and peer review chatbot interviews. ◻ Students complete peer review scaffold.
Reflect & wrap up	5 mins	◻ Compass reflection on the task and learning as exit ticket. ◻ (If time) Use the compass reflection to spark a broader discussion of the risks and opportunities of AI chatbot technology.

Digital Resource Links & Instructions

The digital resources are accessed via links to the student packet and teacher (exemplar) packet.

To use the digital versions, first 'save a copy' of the file into your Google Drive. From your Drive you can easily assign the work packet to students using Google Classroom.
Alternatively, you can download and distribute the digital files as PowerPoints to use with MS Office.

The digital materials mirror the print activities, with formatting optimized for digital delivery.

Print Exemplar

A completed teacher exemplar is available for the print resource via the link. The exemplar includes sample answers and additional teaching points.

INTERVIEW A CHATBOT

Name:	Class:	Date:

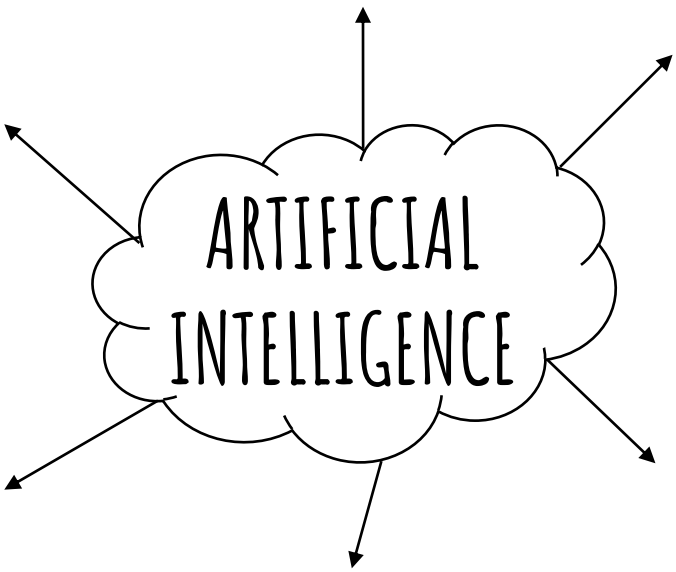
Learning Intentions

By the end of this sequence, I will be able to:

- ❑ **Identify** artificial intelligence (AI) and chatbots I already interact with.
- ❑ **Create** and **use** prompts to interview a chatbot about its processes, risks and opportunities.
- ❑ **Peer review** one chatbot interview and **reflect** on the opportunities and risks of the technology.

Brainstorm

1. What do the words **Artificial Intelligence (AI)** mean to you? Fill in the brainstorm with any words, images, products or media (including movies and videogames) that AI brings to mind.



Finished? Share ideas with a peer nearby. Add new ideas, drawing extra arrows if needed.

What is a chatbot?

2. Before reading the passage, *'Have you been hearing about chatbots and ChatGPT?'* Draw a visual representation and/or write a sentence using each of the key vocabulary words.

Word and Definition	Visual	Sentence
Simulate *(v): to imitate or copy the appearance, character or responses of something.*		*E.g. Pilots train using a flight simulator.* Your turn:
Program *(v): to provide a computer or machine with coded instructions to automatically perform a task.*		*E.g. I programmed a new mod for Minecraft.* Your turn:
Generate *(v): to cause or create something new.*		*E.g. Let's generate song ideas.* Your turn:
Personalized *(adj): something that is designed for a person's unique preferences or needs*		*E.g. I want a personalized bike with LED lights!* Your turn:

Have you been hearing about chatbots and ChatGPT? Wondering what a chatbot is? You're not alone. In 2023 it seems like everyone is talking about chatbots. In the simplest terms, a chatbot is a computer program that is designed to **simulate** human conversation.

If you've ever asked Siri a question, ordered McDonald's online, or tried to check when a pair of sneakers you ordered will arrive, you've interacted with a chatbot. Chatbots work by taking user input, in the form of text or voice, processing it, and then **generating** a response.

For many years, companies have been competing to build chatbots that are as human-like as possible. Unlike humans, chatbots can work 24/7 and don't need to be paid an hourly wage. Early chatbots were **programmed** to identify common words or phrases, and then generate the most likely answer from a selection of pre-written responses.

If you ordered a burger, the chatbot might automatically be **programmed** to ask, "would you like fries with that?" If you typed "sneaker return" the chatbot might direct you to a product returns form. These "rule-based" chatbots are useful but limited and often get things wrong.

To address this, newer more advanced chatbots use artificial intelligence (AI) to generate original responses that no human has written before. AI chatbots examine each word in a question and look for patterns and connections to words it has seen before. These chatbots train on all of the text available on the internet, so have lots of examples to learn from!

The ability to **generate** original responses as well as learn from conversations, means AI-powered chatbots provide more advanced, creative and **personalized** responses. Many people believe these AI-powered chatbots will change the way we work, learn and play.

3a. Use the explanation on pg. 2 to answer the multiple-choice questions below.

1. Based on the explanation in the article, a chatbot is:

a) An online space where people can communicate with each other by sending messages in real-time.
b) A computer program that can answer questions and simulate human conversation with users.
c) A platform where people can watch or host live-streams of video games, art, music or conversation.

2. Based on the article, which of the following is not a chatbot?

a) Siri
b) ChatGPT
c) McDonald's online ordering assistant
d) Twitch

3. Why do companies use chatbots rather than hiring humans for customer service?

a) Chatbots perform better than humans.
b) Chatbots are cheaper than humans.
c) Customers prefer talking to bots.
d) All of the above.

4. A key difference between "rule-based" and AI-powered chatbots is:

a) AI-powered chatbots are free to do anything they want including break laws and rules.
b) Rule-based chatbots are personalized and free to use while AI-powered chatbots can only be used with a subscription.
c) Rule-based chatbots have pre-written answers while AI-powered chatbots can generate original responses.

5. What material is used to train AI chatbots?

a) Carefully reviewed online sources.
b) All the text on the internet.
c) Free weights and cardio machines.
d) Wikipedia.

6. Compared to rule-based chatbots, AI-powered chatbots can deliver:

a) creative responses.
b) personalized responses.
c) more advanced responses.
d) all of the above.

3b. Where do you use or see chatbots in your life? Do they add value? Why or why not?

Prompt Engineering & ChatGPT BINGO

4. To learn more about chatbots and artificial intelligence (AI), we're going to be interviewing one of the most powerful chatbots available, ChatGPT.

To get a BINGO, you need to have written down 8 questions **with prompt engineering**, that match horizontally **and** vertically. Note: Maximum of two wildcards!

Prompt engineering refers to the process of carefully crafting the instructions which help an AI model to answer a question or prompt in a way that is most helpful.

One example is specifying the **level** and **length** of your desired answer. For example:

"How does ChatGPT learn information? Answer at an 8th grade level in 100 words or less."

Another example of prompt engineering is giving a chatbot a **specific role** to answer from:

"What are the best courses to apply for at College if I love Sports and Computer Science? Answer as an experienced College Counsellor in 150 words or less."

How did ChatGPT get its name? What does GPT stand for?	*How does ChatGPT learn information?*	*What are 3 useful functions of ChatGPT for students?*	*How will AI and ChatGPT change education?*
How was ChatGPT invented?	*How does ChatGPT generate answers? Can it think?*	***WILD CARD:*** *Appropriate question on whatever you want!*	*Is it wrong to ask ChatGPT to do my homework? Why?*
WILD CARD: *Appropriate question on whatever you want!*	*What are the potential benefits of ChatGPT for society?*	*What are the potential risks and harms of ChatGPT for society?*	*What are the best skills for young people to learn today in a world of powerful AI?*
What will the jobs of the future look like 5, 10 and 20 years from today?	*Do the opportunities of AI and ChatGPT outweigh the risks? Why?*	*What advice would you give to young people today?*	***WILD CARD:*** *Appropriate question on whatever you want!*

Interview Questions

5. Draft eight questions to ask ChatGPT about itself and its technology. Use the prompt engineering examples and the BINGO question scaffold on pg. 6 to guide your work.

Q1:

Prompt Engineering:

Q2:

Prompt Engineering:

Q3:

Prompt Engineering:

Q4:

Prompt Engineering:

Q5:

Prompt Engineering:

Q6:

Prompt Engineering:

Q7:

Prompt Engineering:

Q8:

Prompt Engineering:

ChatGPT Login

6. With questions and prompt engineering ready, it's time to login and interview ChatGPT.

1. Go to: https://chat.openai.com/
2. Select 'Sign Up'.
3. Enter your school email address.
4. Create an easy to remember password.
5. Verify your account by opening your school email and selecting 'Verify'.
6. Return to: https://chat.openai.com/
7. Log in using your email and password.
8. Start asking your questions!

Peer Review

7. After completing your ChatGPT interview, read another student's interview and carefully complete the peer review below.

Review of:	Time:	
	Date:	

Two answers or questions which are **similar** in this interview and my interview are:	**Two** answers or questions which are **different** compared with my interview are:
1.	1.
2.	2.

One thing **I like** *or* **am surprised at** about this interview is:

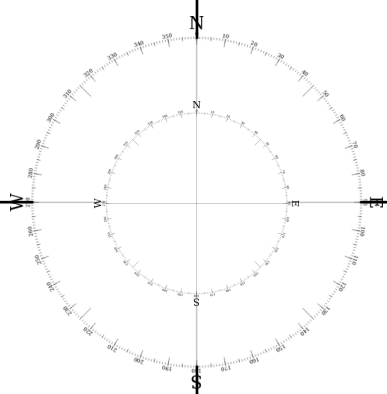
One **follow-up question** I would **love** this interviewer to ask is:	Shade the stars to rate the **overall quality** of ChatGPT's answers:

Exit Ticket

8. Write or draw responses to each of the prompts in the Compass Point reflection.

N = Need to know –
What else do you want to know or find out about AI or ChatGPT?

E = Excited –
What excites you about using ChatGPT and AI?



W = Worrisome –
What do you find worrisome about ChatGPT and AI?

S = Suggestion
What would you like to learn next about ChatGPT or AI?

Feedback & Credits

Enjoyed teaching this lesson with your class? Have suggestions or comments about how we could make it better? We'd love to hear from you.

Complete this form and join the mailing list to be notified when the next 'Introduction to AI' lesson is released.

About AI for Education

At AI for Education, we're passionate about making it easy for educators to apply AI into their practice.

We believe that AI, properly and ethically implemented, can be utilized to improve student outcomes and prepare students for the future while allowing teachers to focus on what matters: teaching.

To fulfil this vision, we create AI resources and training, and offer consultation and productivity tools to help educators and system leaders explore the power and potential of AI.

Learn more about our work at AI for Education here.

Lesson Creator:

Michael Kingston is the Curriculum Lead at AI for Education. He is an award-winning teacher and curriculum developer from Australia, now living and working in Atlanta. Since 2018 he has created educational resources under the name *Growth Through the Middle Years*. Michael is passionate about educational equity, teacher education and digital literacy.

Lesson Editor:

Amanda Bickerstaff is the Founder and CEO of AI for Education. She has over 20 years of experience in the education sector, and she has a deep understanding of the challenges and opportunities AI can offer. Amanda is a frequent speaker and writer on AI in education, student wellbeing, and student voice, and is committed to helping schools and districts adopt AI ethically and equitably.

What's next?

This lesson is the first in a 6-lesson sequence introducing middle and high school students to the power, potential and risks of generative AI with a focus on ChatGPT. Upcoming lessons explore how large language models are trained and generate answers (lesson 2), the risks of AI hallucination and bias (lesson 3) and debates around AI policy in schools (lesson 4). Lessons 5 and 6 take the form of an interactive ChatGPT project and presentation.

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