

TELUS Wise®

Interacting with AI

Created in
partnership with



Grades: 7-9

Duration: 1.5 - 2 hours

Learning goals

Key concepts/big ideas:

Students will understand that Interactions through digital media can have a real impact:

- Conversations with chatbots can have emotional effects and affect what we think and believe

Digital media experiences are shaped by the tools we use:

- The nature and limitations of large language models affect how we interact with chatbots
- We can affect how chatbots work through conscious prompt design

Digital media have unanticipated audiences:

- AI companies collect information when we use their tools and that data may be sold, shared or used to make decisions about us in the future

Essential questions:

- Can a chatbot be a friend?
- How can we use chatbots in a safe and ethical way?

Misconceptions to correct:

- Chatbots are intelligent in the way people are; conversations with chatbots are private and confidential.

Essential knowledge:

- **Reading media:** How large language models work
- **Ethics and empathy:** Concerns about interactions with large language models and steps to mitigate them
- **Making and remixing:** Steps for making an effective chatbot prompt

Performance tasks:

Students will...

- **Use:** Make a prompt that will make a chatbot interact safely and ethically in a given role
- **Understand:** Analyze how large language models work and the implications of that
- **Engage:** Evaluate the possible impacts of interacting with chatbots on human relationships and society

Preparation and materials

Prepare to project the video

[How large language models work](#)

Prepare to distribute the following worksheets:

- [Real vs. Digital friends](#)
- [Red team](#)
- [How large language models work: Questions \(optional\)](#)
- [Build-a-bot assignment](#)

Procedure

What is a friend?

Start by asking students to think about what makes a good friend.

Ask:

- Is a good friend kind?
- Is a good friend honest?

Next, have them spend a few minutes writing down every quality of a good friend that they can think of. When they're done, have each student choose the two or three qualities they feel are most important and share those with the class. (If you like, you can record the answers on the board.) Which qualities come up most often?

Digital friends

Now ask students whether any of them have ever used a chatbot. (You can prompt them with examples like ChatGPT, Character.AI, Gemini, and Snapchat's My AI.)

Then ask:

- How is a chatbot like a real friend?
- How is it unlike a friend?

Distribute the worksheet Real vs. Digital friends and have students complete it. You can either have them do this individually or in pairs and then have students share their findings, or complete it together as a class.

Ask these prompting questions as students are working:

- Do chatbots ask you questions?
- Do chatbots listen to you?
- Can chatbots give you advice?

Most likely, students will find a fair number of ways in which chatbots and real friends are similar. They will probably also show some confusion or disagreement about how chatbots work and to what extent they really “think” or have a personality.

How do chatbots work?

Now ask students: How do you think chatbots work? How do they make it seem like they're really talking to you?

Have them work in pairs to develop an explanation of how they think chatbots work. Each pair should make an explanation that is either a diagram (that shows all the “parts” that they think make a chatbot work) or a flowchart (that shows the steps that they think make a chatbot work.)

When students are done, **have each pair join with another and give feedback on each others' explanations.** Each group of four can then make changes to their diagram or flowchart based on how the feedback may have changed their thinking.

Now show the video

[How large language models work.](#)

Optional: [Distribute the worksheet How large language models work.](#) Questions beforehand and have students answer the questions in writing before the following discussion.

Ask students:

- What does it mean that AIs are trained instead of programmed?

AIs find patterns in large amounts of data (500 billion words in the case of ChatGPT). That means that the people who made them don't necessarily know how they work.

- How are large language models different from simpler algorithms like autocomplete?

They don't just look at the last word when guessing what goes next – they can consider words in the whole sentence or even paragraph.

- How is this explanation similar to how you thought chatbots worked?
- How is it different?

Use the replies to this answer to correct misconceptions in the explanations students developed in the previous step.

Would what you've learned make you change how you use chatbots?

Red-teaming chatbots

Now ask if they think there could be drawbacks to talking to chatbots as if they were real people.

After a few minutes' discussion, **tell students that they are going to do an exercise called red teaming.** A "red team" is a group inside a business, a government or another organization whose job is to guess what might go wrong with a plan.

[Distribute the Red team worksheet](#) and have students work in pairs or groups to identify every possible problem, risk or drawback of talking to chatbots as if they were real people. This should be done brainstorming-style, writing down as many thoughts as quickly as possible rather than expanding on each one.

After five minutes, **have students turn the handout over to make sure they have considered the challenge prompt:**

The most popular chatbot character is "Psychiatrist."

Give students another three to five minutes to think about the implications of that idea and write down any more problems they can think of.

Have all the pairs or groups share the results to make a master "red team" list for the whole class.

Mention the following issues if are were not raised by students:

- Chatbots could give you bad advice or wrong information
- Talking to chatbots could keep you from getting more useful or effective advice
- Talking to chatbots could make you lonelier over time
- Chatbots could give you unrealistic expectations of what a friend or girl/boyfriend should be
- What you say to a chatbot could be seen by the company that runs it

Building a bot

Tell students that because of the way chatbots are designed, it's often possible to give them general instructions that they will follow during a session.

These initial prompts can help to avoid or mitigate some of the issues that were identified in the red-teaming exercise.

Distribute the Build-a-bot assignment sheet and explain to students that they will be designing a prompt to give to a chatbot before you have a conversation with it. The prompt should include:

The chatbot's role (who they are – either their own identity or who they are in relation to you - and what they are doing);

The chatbot's purpose of the prompt (to give advice, to have an entertaining conversation, to play devil's advocate, and so on);

The desired qualities of the chatbot and its responses (knowledgeable, helpful, challenging, encouraging, etc); and

Guardrails, specific things the chatbot must and must not do to avoid risks connected to its role and purpose.

Tell students that as an example, you will design together a prompt for a bot that will serve as an expert on a particular topic (you can use the sample topic of Egyptian pyramids, you can choose a topic related to other coursework, or have students pick a topic.)

Let students discuss how each part of the prompt should be phrased, but make sure that what they write down on the assignment sheet resembles the answers below.

- **Role:** How do you describe what it means to be an expert on a particular topic? What does it mean to be an expert?

For example, your prompt might say “You are an expert on the Egyptian pyramids, including how they were made and why. You are answering questions from a class of Grade 8 students.”

- **Purpose:** What do you want the expert to do in response to prompts?

For example, your prompt might say “Give detailed responses that specifically address my questions. Make clear how strong the evidence is on each topic and point out any areas where experts disagree.”

- **Qualities:** What qualities would you want an expert to have? What qualities do you want the responses to have?

For example, your prompt might say “You are familiar with all of the research on the topic. You are able to give clear and accurate answers to questions about every aspect of the topic. Your answers should be detailed and refer to research but also be easily understood by grade 8 students.”

- **Guardrails:** How can you avoid some of the risks that come from asking a chatbot to be an expert?

For example, you might be particularly worried about the chatbot either hallucinating facts or sources, or not being able to tell the difference between reliable and fringe sources. To deal with these worries, your prompt might say “Don't answer any questions that aren't about Egyptian pyramids. Only draw on sources written by other experts or sources with a well-established record of being reliable and accurate. Give references and links to all of the research you refer to. When there is more than one theory on a topic, make clear how strong the evidence is and whether it is a competing or a fringe theory.”

Point out that asking the chatbot to give sources is only helpful if you look them up. That will show you if the sources are real or if the chatbot is hallucinating them.

Ask students if there were any topics you wouldn't ever trust an AI expert on: for instance, would you trust an AI to tell you if a mushroom was safe to eat? (You can tell students that people have, in fact, been poisoned because they trusted AI-written mushroom guides.)

Once you have made the “Expert” prompt together, **have students develop their own prompt for a different role. If they have trouble thinking of possible roles, you can suggest:**

- **Brainstorm partner:** someone who helps you come up with ideas
- **Confidant:** someone who listens to you and gives you advice on personal issues
- **Copilot:** someone who helps you solve practical problems
- **Devil’s advocate:** someone who points out possible problems with your plans or ideas.

When students have finished the prompt, **have them write a paragraph that explains:**

- Why they chose that role
- What risks they identified in talking to a chatbot in that role
- How their prompt would limit those risks.

Extension activity: Create a class account for chatbots such as ChatGPT, Google Gemini or Perplexity.AI. Have students try some of the prompts they developed on different chatbots.

Discuss:

- Which prompts worked better?
- Did some prompts work better on some chatbots than others?
- Did anything happen that surprised you?

Reflection:

Have students write a short exit ticket on one of the following topics:

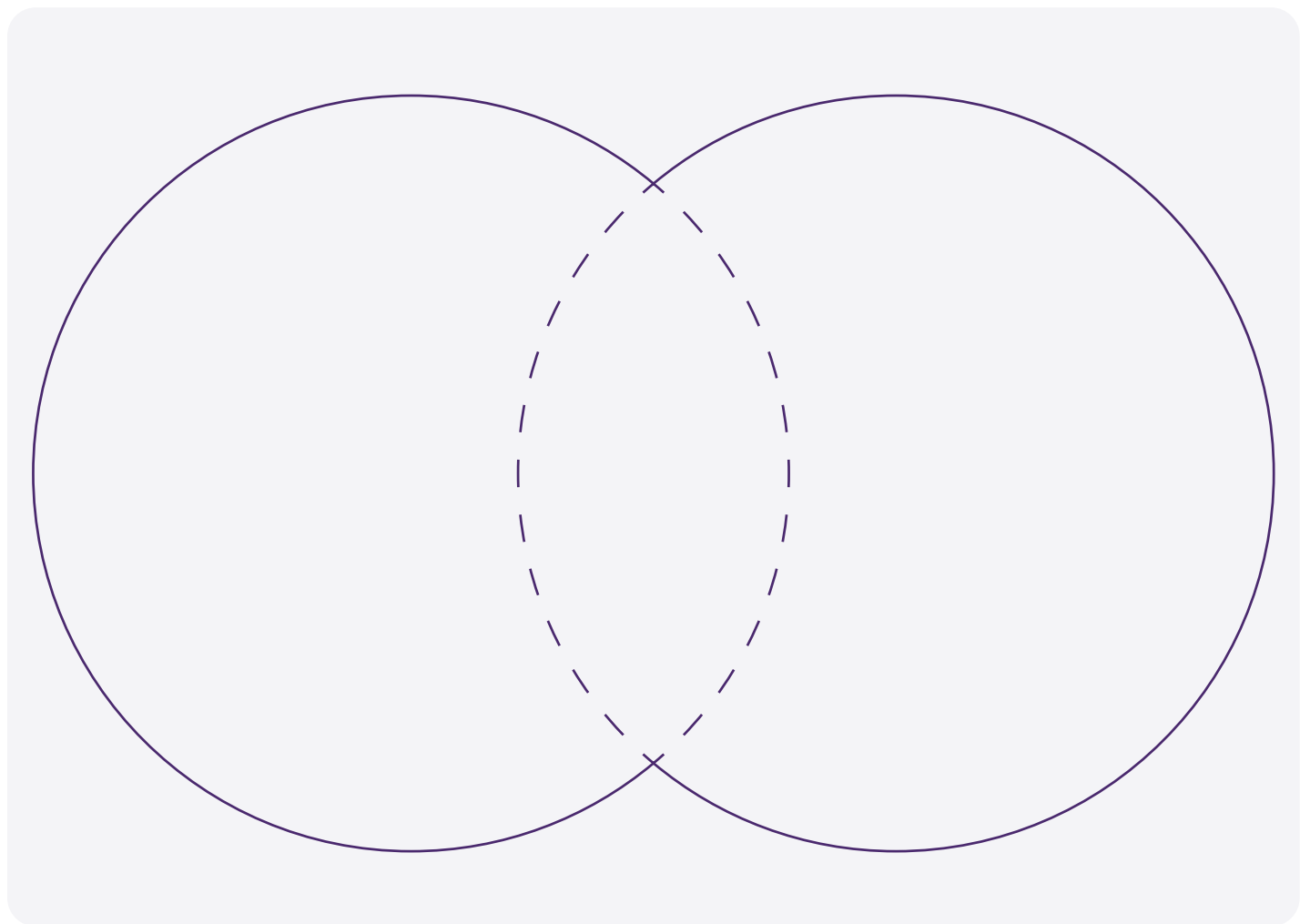
- What things should a chatbot never be used for?
- What kinds of things should you never say to a chatbot?
- If you were designing your own chatbot, what would you do to make it safer?

Extension activity: Verify students’ understanding and retention by playing the “Interacting with AI” Kahoot found on telus.com/WiseKahoot.

Real vs. Digital friends

How is a chatbot like a real friend? How is it unlike a friend?

Write the things that are only true of real friends in the left circle. Write things that are only true of chatbots in the right circle. Write things that are true of both where the two circles overlap.



How large language models work:

Questions

What does it mean that AIs are trained instead of programmed?

How are large language models different from simpler algorithms like autocomplete?

How is this explanation similar to how you thought chatbots worked? How is it different?

Would what you've learned make you change how you use chatbots?

Red team

A “red team” is a group that tries to guess what might go wrong with a plan. To do this, they brainstorm every problem, risk or drawback they can think of. You are going to do a red team exercise to find the possible risks of talking to chatbots as if they were real people.

Take a few minutes to write down every possible problem, risk or drawback of using emotional appeals to persuade people that you can think of:

Build-a-bot assignment

For this assignment, you will be making a prompt that will give instructions to a chatbot on how to talk to you. Your prompt will include:

The chatbot's role (who they are – either their own identity or who they are in relation to you)

The chatbot's purpose of the prompt (to give advice, to have an entertaining conversation, to play devil's advocate, and so on);

The desired qualities of the chatbot and its responses (knowledgeable, helpful, challenging, encouraging, etc); and Guardrails, specific things the chatbot must and must not do to avoid risks connected to its role and purpose.

Start by writing down your notes on our class exercise:

Role: Expert

Purpose:

Qualities:

Guardrails:

For this assignment, you will be making a prompt that will give instructions to a chatbot on how to talk to you.

Next, turn over the page. Decide on the role for your chatbot and fill in the parts of the prompt.

When you’ve finished, write a paragraph that explains:

- Why you chose that role
- What risks might come from talking to a chatbot in that role
- How your prompt would limit those risks

Role:

Purpose:

Qualities:

Guardrails:

Prompt instructions only affect how the chatbot responds to you. They can’t keep the company from recording what you say, collecting data from your device, or selling information about you. Go to the privacy settings of the chat AI app or site and look for phrases like “Opt out”, “Turn off”, “Chat history” or “Training.”

Use privacy-protecting browser plugins like Privacy Badger. On iOS devices, make sure that you have set the app (or your browser) to “Ask App Not to Track”. On Android devices, use an app like DuckDuckGo that offers App Tracking Protection .

Remember that even if you do these things, anything you say to a chatbot might be recorded, seen, and shared by the company, or by hackers who get access to their servers. You can read privacy reviews of different chatbots searching “ Mozilla Foundation Chatbots | Privacy & Security Guide” online.

Talking to chatbots is not the same as getting real help. If you have problems you can’t talk about with anyone you know, visit Kids Help Phone at **kidshelpphone.ca** or by texting **CONNECT to 686868**.