BT Group

AI & Customer Service:

Lesson 1

Resources

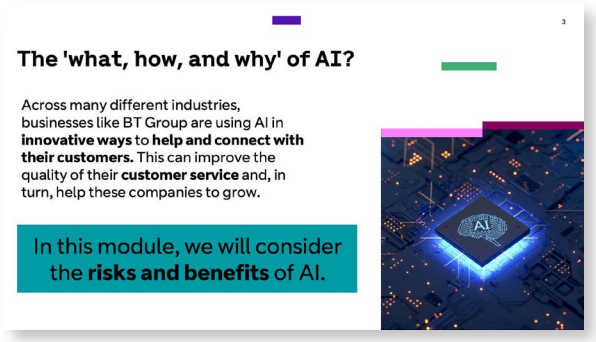
- PowerPoint presentation

Intro (5 mins)
Slides 2-8

Introduction

First ask students what they already know about AI and how it works. Gather answers from volunteers before comparing responses to the information on slides 2-3.

Make sure to highlight the 'Big Thinking' question on slide 4 which will be revisited throughout the module as a point of discussion. Use slides 5-8 to introduce the module overview and learning objectives of this lesson.



Resources

- PowerPoint presentation
- Internet connected device (tablets, computer/laptop or smartboard)

Icebreaker (15 mins)
Slides 9-12

Working with AI

Check students' knowledge and understanding around the following terms, before showing the definition of how AI works on slide 10:

- Data (facts and statistics that computers and humans use to inform decisions)
- Machine learning (the way that computer systems learn and adapt by using algorithms)
- Algorithms (a set of instructions that computers use to carry out tasks and solve problems)

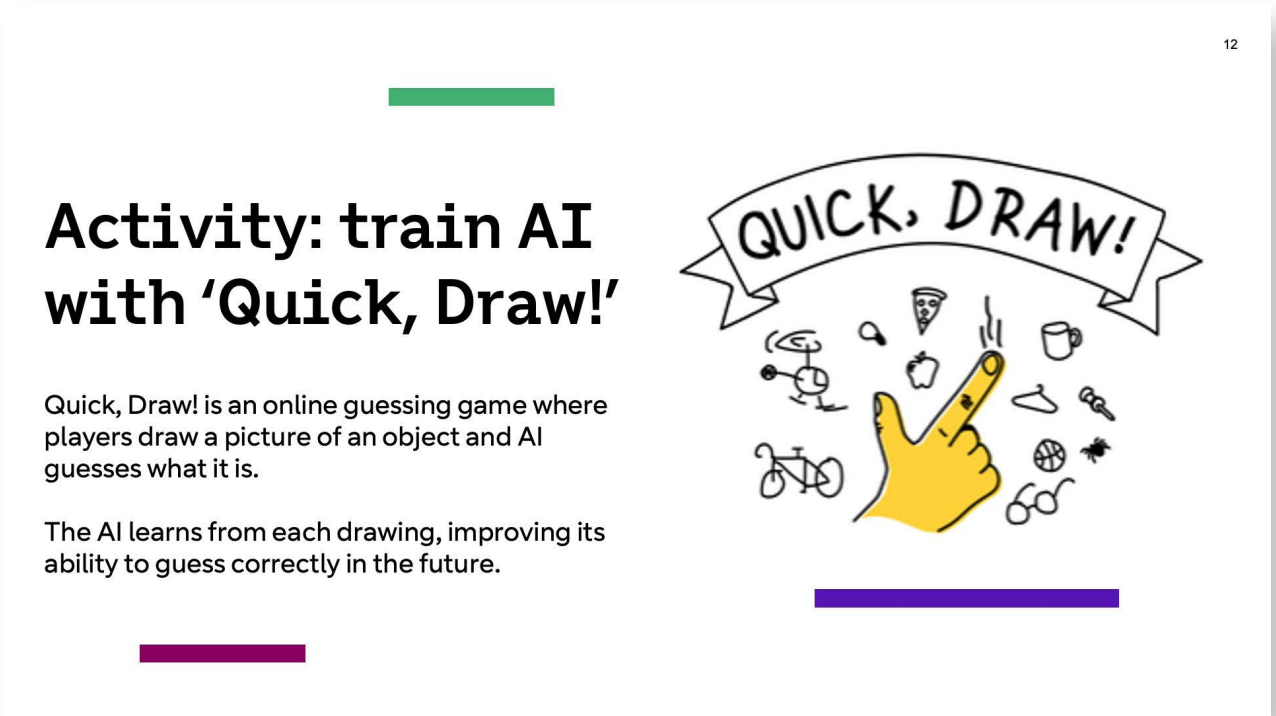
Explain that we are constantly processing data from everything we see, read, watch, hear, smell, taste and touch. In just the same way, AI systems gather and process data from sources such as sensors, databases, or people's online search terms. They then analyse this to learn patterns and relationships within the data. This is called Machine Learning.

Slide 11: Train an AI with Quick, Draw!

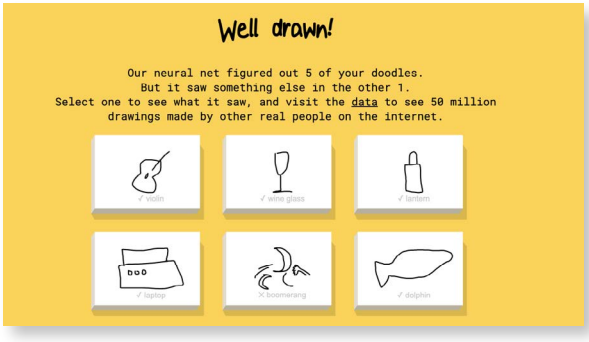
OPTIONAL: Show students the short video (linked on slide 11) from the creators of 'Quick, Draw!'. Explain that this will help them understand how machine learning works. It will also give them a sneak peek behind the scenes of interesting careers in digital and tech.

- How can the game inspire others and help us learn?
- Which careers are showcased here?
- - What skills did the writers require to produce the game?

Show slide 12. Tell students that they are going to put these concepts of AI training and machine learning into practice through the game 'Quick, Draw!' - the game they've just watched a video about. In the game, they will draw pictures, and the AI will guess what they have drawn, similar to Pictionary.



1. Open Quick, Draw! on a browser https://quickdraw.withgoogle.com/
2. Ask for 6 volunteers, they will need to line up in front of the mousepad or the interactive smartboard pen. The site will direct the user to create six drawings with 20 seconds per drawing, so the students will need to be able to swap quickly after their turn.
3. Explain to the students that they will be given a prompt word and will have to draw the world within 20 seconds and then swap to the next student.
4. Press 'Let's draw' and start the game.
5. After you finish, a screen similar to the below will pop up:



6. Click on one of the drawings and look at the three closest matches. What else did the AI think your drawing looked like? Then, scroll down and see the other images of the same prompt word that other people have drawn. Explain that this is the data that the AI has been learning from.
7. Click back and if there are any drawings that the AI did not guess, click on that drawing. Look at the closest matches and the drawings of the same prompt word that the AI did guess.

Slide 13: Reflect

Ask students to suggest some answers to the question: 'what are some similarities and differences between the way AI learns and the way humans learn?' Use the below prompts as needed:

Similarities:

- Learning from Experience: Humans learn by interacting with the world. AI systems, particularly machine learning models, learn from data, which can be thought of as their "experience."
- Pattern Recognition: Humans recognise patterns in their environment, like identifying objects, sounds, or faces. AI is designed to recognise patterns in data, such as identifying images, words, or sequences of actions.

Differences:

- Context: human learning involves emotions, reasoning and intuition. Humans can learn abstract concepts and understand context. AI learns through mathematical algorithms that improve its performance based on data. It can't understand context, emotions, or abstract concepts, as it only operates within the boundaries of the data it has been trained on.
- Flexibility: humans can generalise knowledge across different contexts and apply learning from one situation to another, even if the situations are different. AI is less flexible and is often specialised for specific tasks. AI systems generally struggle with tasks that they haven't been explicitly trained on.
- Understanding and creativity: Humans understand the "why" behind things, allowing for reasoning, creativity, and innovation. They can create new ideas, art, and solutions to problems that have never been encountered before. AI can generate content or solutions based on patterns in data, but it doesn't have genuine creativity or insight. It cannot create something entirely new without some basis in its training data.

Resources

- PowerPoint presentation
- Access to the internet (YouTube)

Activity 2 (15 mins)
Slides 14-20

AI in the world

Explain that the world of digital and tech is evolving all the time, with AI increasingly influencing many aspects of our lives – from our day-to-day choices, to our daily interactions with our friends, family and teachers.

Ask students to name ways AI is used in our everyday lives, before revealing the examples on slides 15 and 16. Students may also suggest these answers:

- apps with voice and facial recognition
- voice cloning
- help with homework and revision
- plagiarism detectors
- weather forecasts
- online translators
- voice assistants like Alexa and Siri
- virtual assistants like ChatGPT
- smart security systems
- chatbots
- personalised learning software in schools.

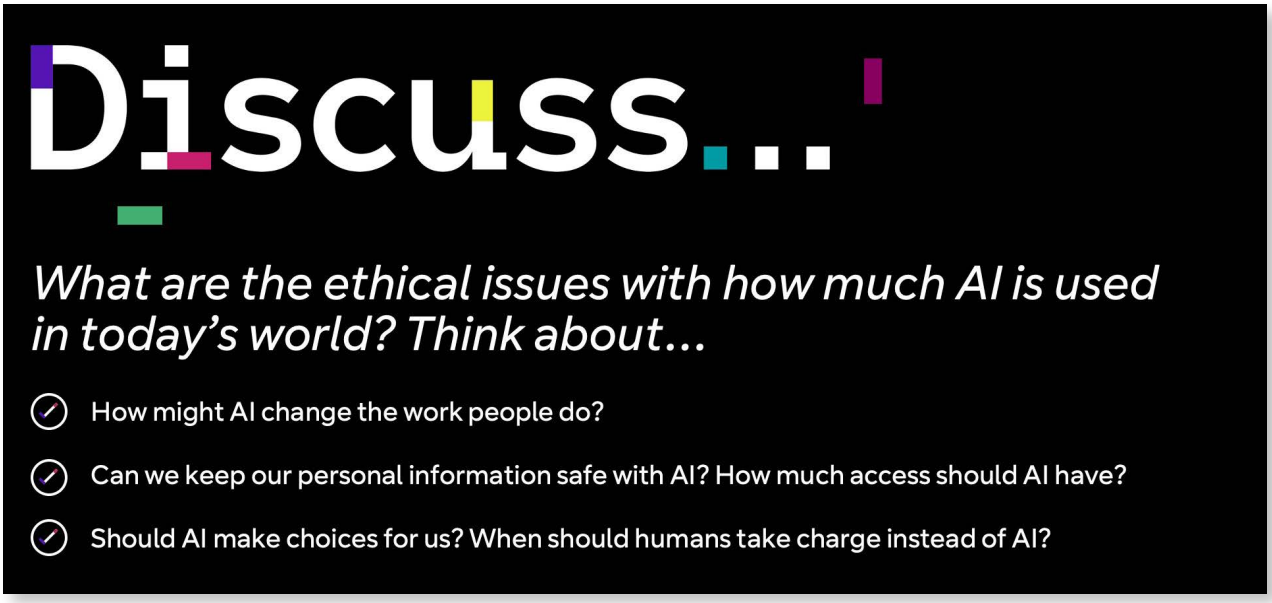
Choose an example from those suggested by the class and briefly discuss how this technology has transformed the way we live, work and connect. What are some of the benefits of this type of AI? Can they see any drawbacks or possible risks?

Slide 17: In pairs, ask students what they think the main ethical concerns are with the growing prominence of AI.

Encourage them to think critically about the impact of AI on jobs, privacy, decision making and bias.

- How will AI change the work people do?
- Can we keep our information safe with AI? How much access should AI have?
- Should AI make choices for us? When should humans take charge instead of AI?

Choose some pairs to feedback to the rest of the class.



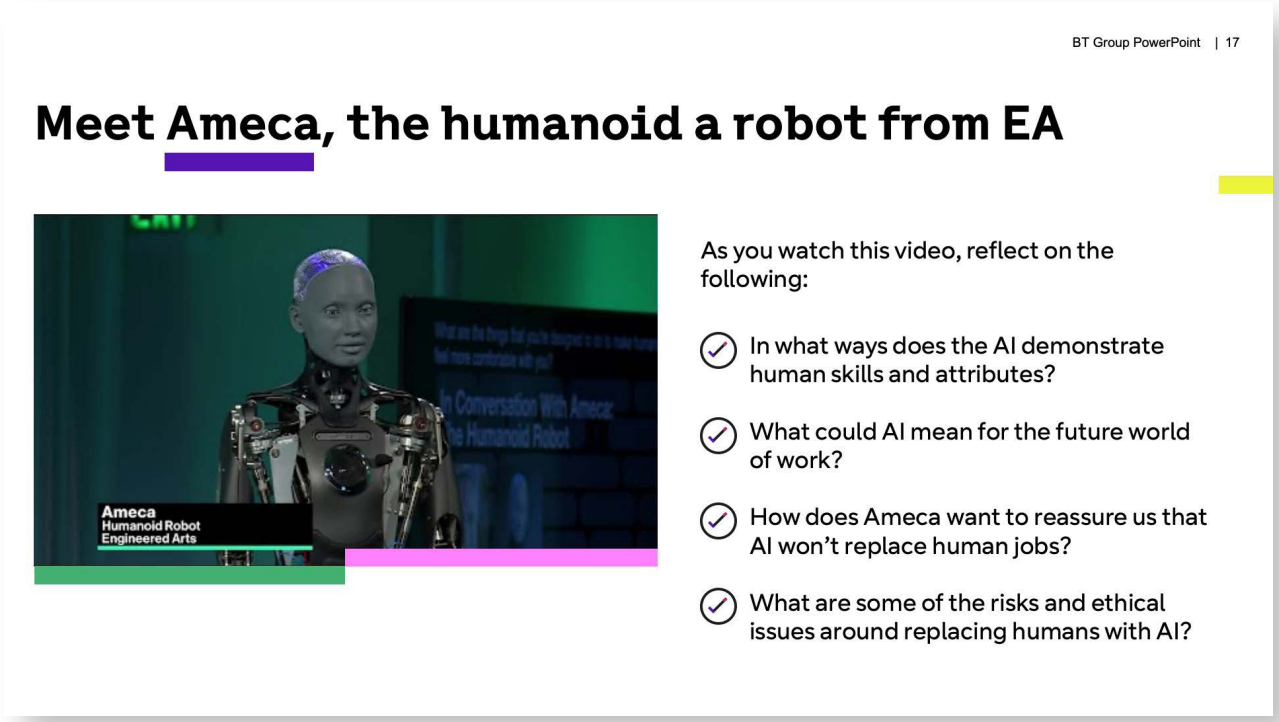
Slide 18: Meet Ameca, a humanoid robot

Play the video linked on slide 18 showing a brief interview with an AI called Ameca. Discuss these questions:

- In what ways does the AI demonstrate human skills and attributes?
- What could AI mean for the future world of work?
- How does Ameca want to reassure us that AI won't replace human jobs?
- What are some of the risks and ethical issues around replacing humans with AI?

Show slide 19 and ask the class how humans might respond differently to a question or problem compared to AI. For example, AI will generate automated responses which may suggest a solution efficiently but won't take factors like emotional context into account. Humans can use empathy, emotional intelligence and adaptive thinking to come up with more creative, intuitive answers. Reflect that for this reason, having a human-centric approach is still very important even when AI can technically provide a possible solution.

If you have time, show slide 20 or print it out for students to see some other examples of AI in the world of work.



Resources

- PowerPoint presentation

Activity 3 (20 mins)
Slides 21-28

AI and customer service

Put up slide 22 to remind students of the 'Big Thinking' question: 'How much should we use AI to replace human interaction in the world of work?' Explain that you're going to delve deeper into this question using work from BT Group as an example.

Explain that AI has increasingly taken on roles in customer service, but whether it can fully replace human interaction is a complex question. AI is already enabling many companies, such as BT Group, to help more customers faster (and 24/7) and at a cheaper cost than human customer support. Run through the 3 examples on slide 23.

However, BT Group also recognises that using AI is not the best solution for every customer interaction, so they also employ thousands of contact centre staff members.

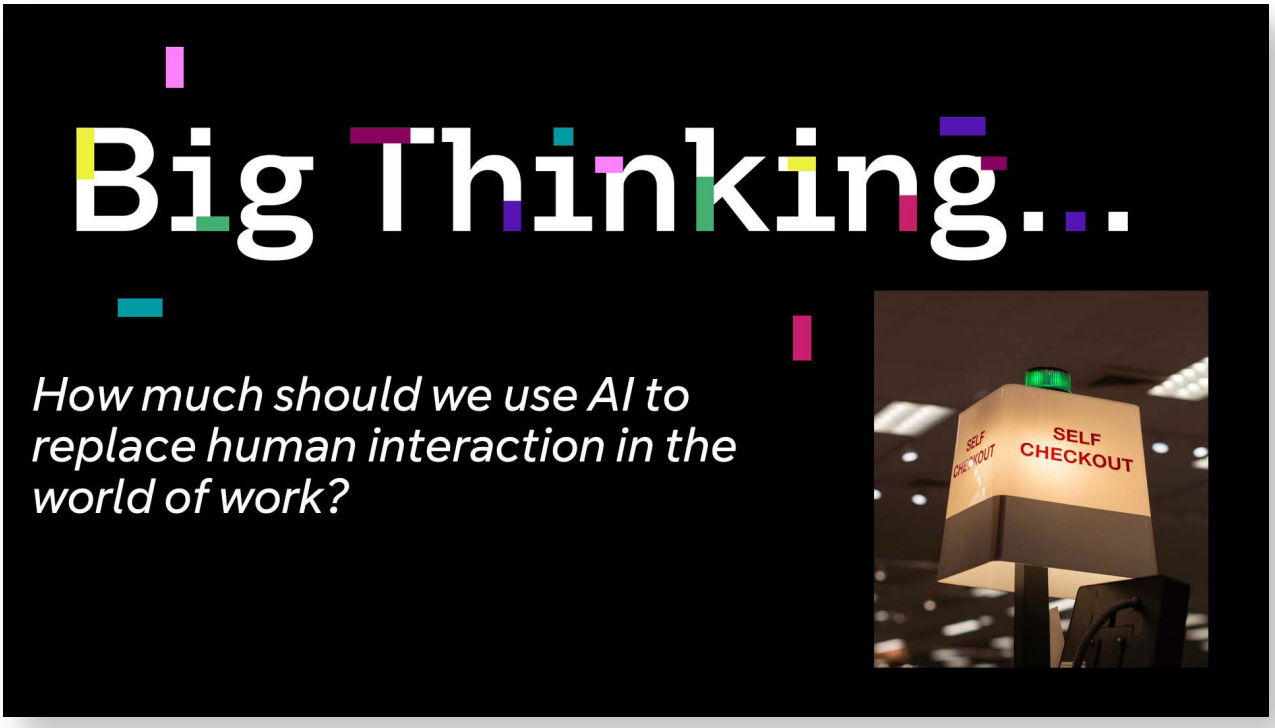
Ask the students if they have ever used a chatbot, help desk or self-service portal.

- What did they think about it compared to a human helpline or text chat service?
- What are the pros and cons from the company perspective?
- What are the pros and cons from the customer perspective?

Play the BT Group video of a colleague explaining their job role and how AI is used (slide 24)

Put students in groups and using what they've learnt from slides 23-24, they should discuss the benefits and considerations of using AI in customer service (slide 25).

Use slides 26-27 to run through potential benefits and considerations. Use the prompts to facilitate discussion:

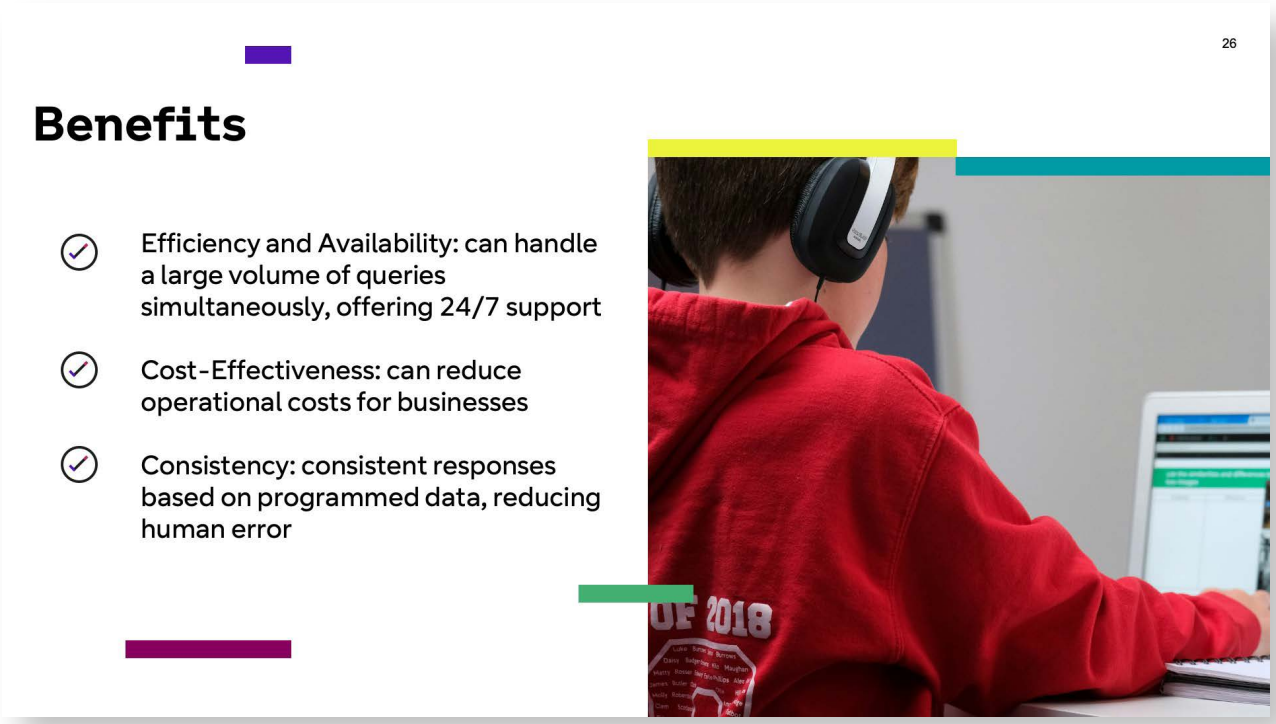


Benefits

- Efficiency and Availability: AI-powered chatbots and virtual assistants can handle a large volume of queries simultaneously, offering 24/7 support without fatigue. This is particularly valuable for answering common, repetitive questions quickly.
- Cost-Effectiveness: Automating customer service processes can reduce operational costs for businesses, as AI can handle many tasks that would otherwise require human employees.
- Consistency: AI provides consistent responses based on programmed data, reducing human error and ensuring that information provided is accurate and standardised.

Considerations

- Complex Problem Solving: AI can struggle with complex, nuanced issues that require empathy, deep understanding, or creative problem-solving. Humans are better equipped to handle situations that fall outside predefined scripts or that require critical thinking,
- Emotional Intelligence: Human interaction in customer service is not just about resolving issues; it's also about managing emotions - responding to a customer's frustration, anger, or sadness.
- Building Relationships: AI lacks the ability to build rapport with customers. Human interactions can create a sense of connection and loyalty, which is difficult for AI to replicate.



Resources

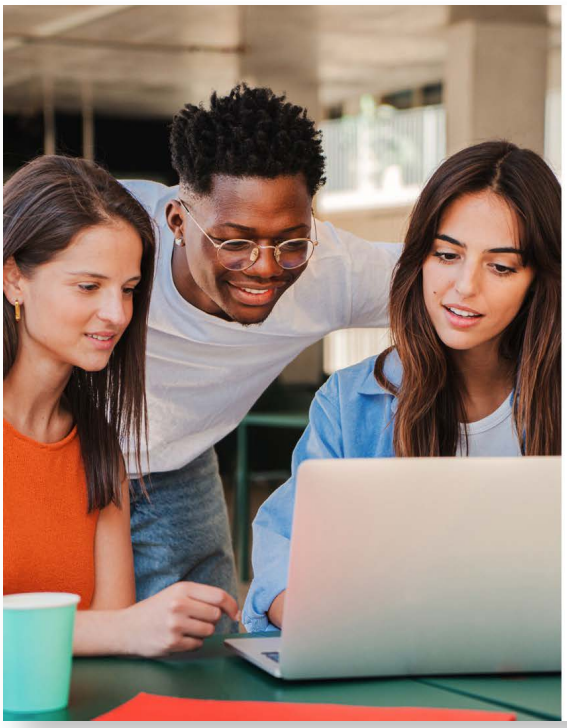
- PowerPoint presentation

Plenary (5 mins)
Slide 28

Reflect on learning

Ask the class the following questions on slide 28 to recap their learning from the lesson, choose a few students to share their responses with the class:

- What is AI?
- What is Machine Learning?
- What are some examples of AI in everyday life and the world of work?
- What are some ethical concerns of AI?
- How is AI used in customer service?



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Recap

What have you learnt today?

- What is AI?
- What is Machine Learning?
- What are some examples of AI in everyday life and the world of work?
- What are some ethical concerns of AI?
- How is AI used in customer service?