READING

Artificial intelligence

LEVEL
Upper-Intermediate (B2)

NUMBER
EN_B2_1074R

LANGUAGE
English

Learning outcomes

- I can read a text about artificial intelligence and understand its main points.

- I can give my opinion on artificial intelligence and what it means for us in the future.

Warm-up

What is artificial intelligence?

Can you give any examples of it?

What does artificial intelligence mean for us?

Read the text. **Answer** the question below.

Artificial intelligence, the field of science that develops computer systems that can perform tasks usually requiring human intelligence, is sure to revolutionise our day-to-day lives.

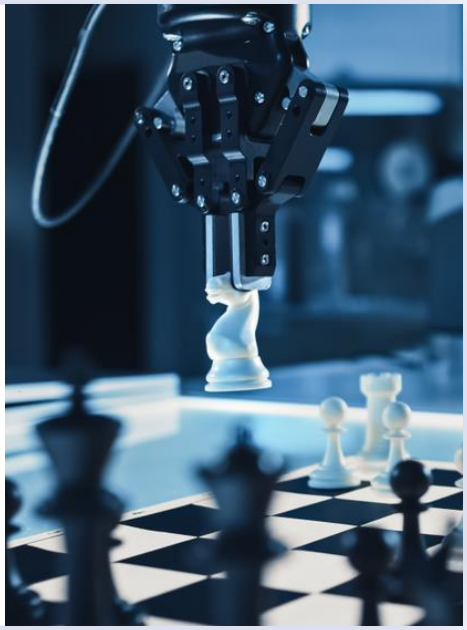
More specifically, these systems have the **potential** to not only automatise a wide range of tasks, but also to complete ones that go **far beyond the reach** of even the most brilliant human minds.

1. How would you refine your definition of artificial intelligence from the warm-up?
2. According to the author, what benefits will artificial intelligence bring to us?

What does artificial intelligence mean for us?

AI, as it is now known, can be **classified** into four **distinct** types. The earliest were known as **reactive machines**, designed for specific purposes.

One of the most famous examples is the IBM program Deep Blue, which beat the world chess champion Garry Kasparov in the 1990s. These forms of **AI**, however, aren't **generally** applied to situations they haven't been programmed for.



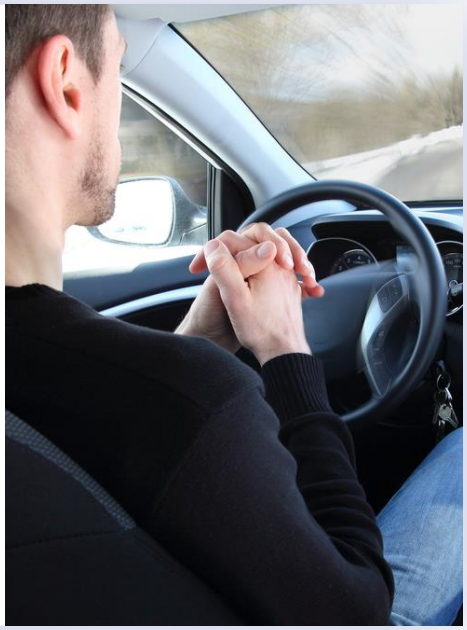
3. What is Deep Blue?
4. What is Deep Blue famous for?

What does artificial intelligence mean for us?

Limited memory systems apply **past experiences** to **inform present decisions** – one example would be a self-driving car.

Theory of mind is a psychological **concept**, referring to a type of AI which understands that its own beliefs, desires and **intentions** impact the decisions it makes.

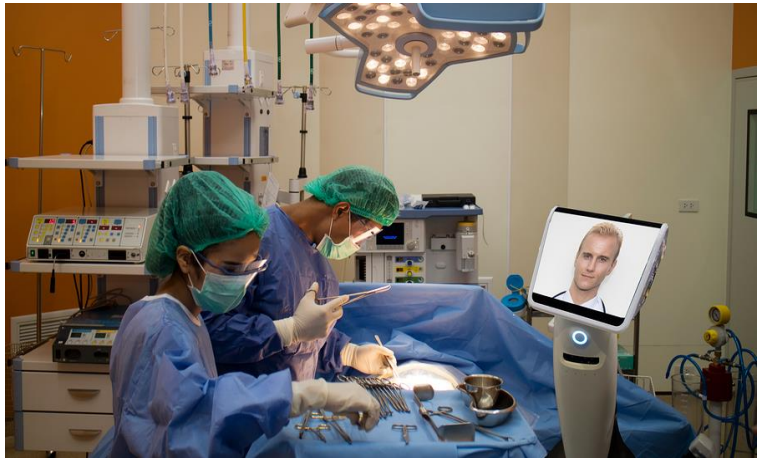
The fourth type of AI uses **self-awareness**, to allow a machine to understand what others are feeling.



5. What are the three other types of AI?
6. Which type of AI is able to empathise with others?

Discuss

How do you think artificial intelligence will change our lives?



Which industries will benefit most from it?

What does artificial intelligence mean for us?

AI technology, in fact, has already **revolutionised** various industries. **Robotics** has made waves in **assembly** lines, manufacturing and more recently in the armed forces.

The **potential** for intelligent machines in the military is obvious and **frightening**. Some say it could be the first step towards autonomous killing machines.

1. Which three areas are already using AI?
2. What danger does the author mention?

What does artificial intelligence mean for us?

Progress has also been made in the field of **deep learning**, which has allowed machines to **simulate** the approach that human beings take to learning.

A computer has even managed to teach itself, using **predictive analysis**. Recent examples of this include performing **speech** and **image recognition** with a **startlingly** high degree of **accuracy**.

3. How are machines being used in deep learning?
4. What have machines in this field been able to do very accurately?

What does artificial intelligence mean for us?

The car industry, too, looks set to be **transformed** by self-driving cars. Motorways may soon become **home** to trucks driven by computers which, unlike humans, don't suffer from **fatigue** on long journeys.

As deep learning technology develops, machines may soon be capable of **analysing** medical records. Will we see hospital staff replaced by **algorithms** capable of making highly accurate **diagnoses** for patients?

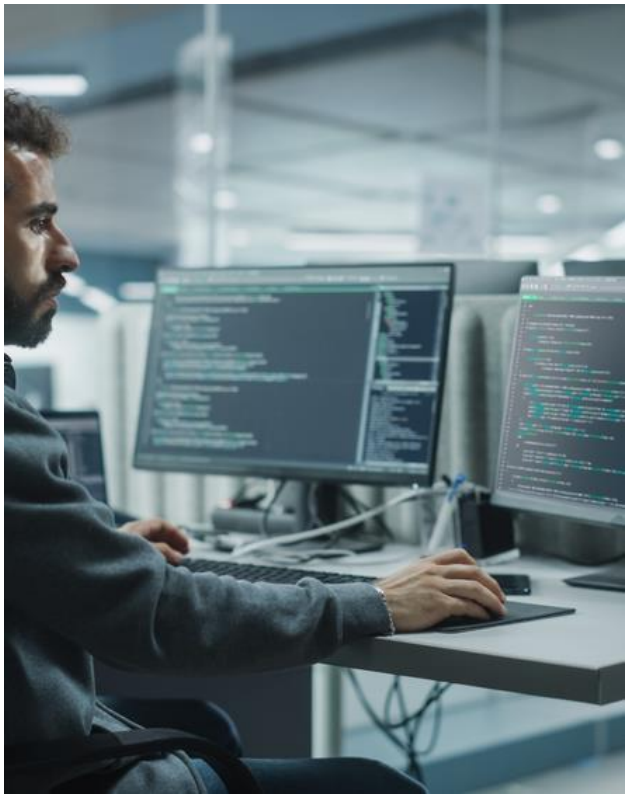
5. What benefit does the text give for machine-driven trucks?
6. What prediction does the author make for hospitals in the future?

Discuss

Work with a partner. **Answer** the questions in **breakout rooms**.

Does the algorithm already know too much about us?

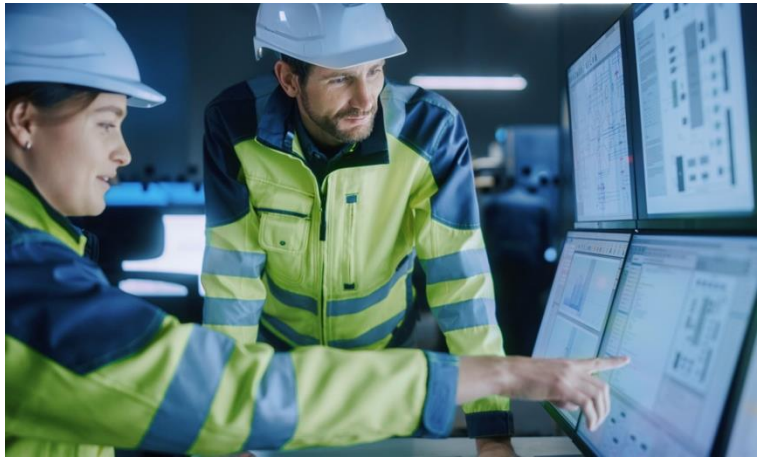
How do you feel about the idea of a machine having access to your medical records?



How similar were you and your partner's opinions?

Discuss

How threatened do you feel by artificial intelligence?



What are some of the things a machine can do that a human can’t?

What does artificial intelligence mean for us?

When it comes to **efficiency** and the power to **process** huge amounts of data, humans simply cannot compete with machines. Due to this fact, certain jobs will soon *only* be carried out by machines.

But does that mean humans will eventually become **outdated** and simply replaced by a shinier-looking robot?

1. In which area do machines always win over humans?

What does artificial intelligence mean for us?

Perhaps not, given that there are things that humans can do that robots can't. At least not yet. Humans are great at **innovating**, making things better through **creativity**. Humans are also able to **personalise** an act, experience or service, adding an emotional **element**. We also have qualities like **common sense** and **social intelligence** which are difficult, if not impossible, to program.

2. What are four human qualities that are difficult to teach to a machine?

What does artificial intelligence mean for us?

Computers can only carry out **processes** according to how they are programmed. People, however, can go beyond **expectations** through the human trait of **initiative**. Programmed machines do not have the ability to be **spontaneous** and in the moment.

Until AI can **emulate** all the surprises a person can bring, humans are sure to remain necessary. For now, at least...

3. What are machines not capable of doing?
4. What do machines have to learn to do in order to replace humans?

Look at this quotation

> **Until AI can emulate all the surprises a person can bring, human touch will remain both necessary and important to many industries.**

Do you agree with this statement or not?

Why or why not?

Which industries do you think will always need humans?

Responding to tricky questions

Will machines ever be as smart as humans?

Hmm, I'm in two minds about that!

This expression means to **not be decided** about something or to **not be certain.**

It can buy you some time to think of an answer!

Real-life language

Discuss

Do you think machines will ever be as smart as humans?

Give reasons for your opinion.

Let’s reflect

- Can you read a text about artificial intelligence and understand its main points?

- Can you give your opinion on artificial intelligence and what it means for us in the future?

Your teacher will now make one suggestion for improvement for each student.

End of the lesson

Idiom

a cog in the machine

Meaning: a person who is a small part of a large organisation

Example: We're all just **cogs in the machine** at this company!

Lingoda

Additional practice

Summarise

List the impact of artificial intelligence on these 3 industries.

Education	Healthcare	Transport

Discuss

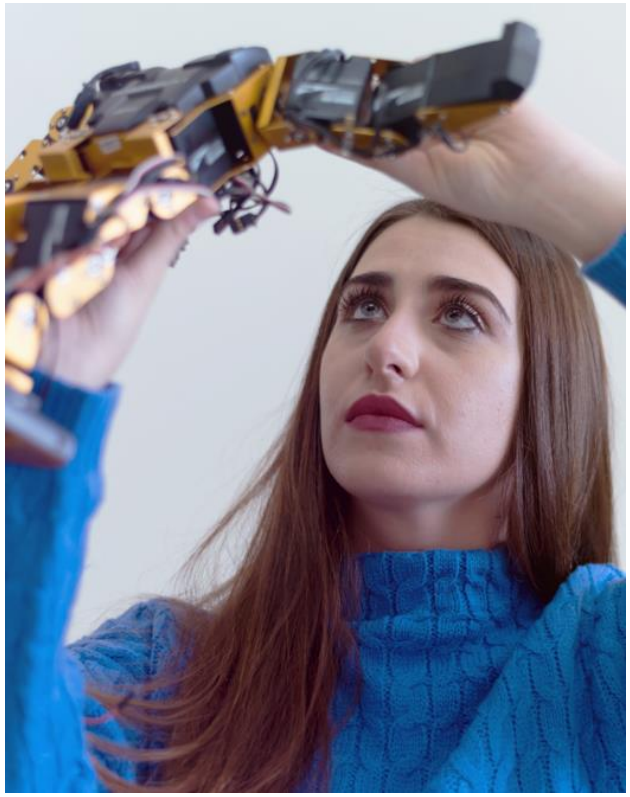
Would you consider owning a robot?

What kinds of tasks would it help you with?

What do you think?

Is a machine ever responsible for the damage it causes?

What would we do about a machine that learns how to commit a crime?



Answer key

P. 4-6:

1. AI is able to automatise a wide range of tasks; AI can complete tasks that the human mind is unable to do itself.
2. Deep Blue is a computer programme created by IBM.
3. Deep Blue is famous for defeating the world chess champion in the 1990s.
4. Limited memory; AI based on theory of mind; AI based on self-awareness.
5. The fourth type: self-awareness.

P. 8-10:

1. Assembly lines, manufacturing and the armed forces.
2. Danger of creating 'killing machines' by using AI in the armed forces.
3. To simulate the approach humans take to learning.
4. Recognise images and speech.
5. Machines don't tire in the same way as humans do.
6. Hospital staff may be replaced by algorithms able to diagnose patients.

Answer key

P. 13-15:

1. In processing data.
2. Innovation, personalisation, common sense and social intelligence.
3. Being spontaneous (i.e. thinking in the moment).
4. When AI can emulate all the surprises of a human being.

Summary

Artificial intelligence

- *to go far beyond; reach (of); reactive machines; limited memory; self-awareness; to revolutionise;*
- *robotics; deep learning; to simulate; accuracy; to transform; algorithm; efficiency; to innovate.*
- *AI can complete tasks that go **far beyond the reach** of even the most brilliant human minds.*

Vocabulary

- to go far beyond
- reach (of)
- reactive machines
- limited memory
- self-awareness
- to revolutionise
- robotics
- deep learning
- to simulate
- accuracy
- to transform
- algorithm
- efficiency
- to innovate

Notes