

Reading Lesson

B1 Science: Mind Reading

Reading

Read the text. Is it possible to control machines with the mind?

Mind Reading

There was a time when the only way to communicate with a computer was by typing on a keyboard or clicking on a mouse. Then software developers created computers that could understand human speech. This technology is now common in homes in the form of smart speakers. The next step is to control a computer and other machines directly with the mind. This will change the way we move, work, play video games, and even the way we drive automobiles.



One system measures a person's brainwaves. These are the electrical signals that move through your brain when you think or move. Your brainwaves can look different when you think about different things. The system can be trained to recognize a pattern of brainwaves and what it means. So, for example, when a person might think about moving their arm, the system learns to recognize those brainwaves. If the system is connected to the person's muscles electrically, they can move their arm. Researchers hope in the future to create wheelchairs that can be controlled just by thinking.

This technology may also make driving safer. When we drive, we make a large number of decisions all the time. If the computer system in a vehicle can read your mind and see what you are going to do just before you do it, the vehicle can compare your decision with what it sees on the road. A computer can react to a situation much faster than a person, especially when that person is tired. In some situations, split seconds can mean the difference between having or avoiding an accident.

Some companies are also developing video games that use this technology. The system uses a virtual-reality (VR) headset that can read the electrical activity in the brain of the person wearing it. The player can control objects in the virtual world just by thinking about them. It works in a similar way to a mouse so that the player can press buttons or click on an object in the virtual world—all without moving a finger.

The technology may also be useful in the workplace. One day, you may be able to write and send a message just by thinking about the person, thinking about what you want to say, and then thinking "send." You may also be able to start and control computer programs with your mind. It would make everything in the workplace faster and easier and create new opportunities for new businesses.

split second (n): an exceedingly tiny moment in time

Reading Lesson

Vocabulary

Complete the sentences with words from the box.

button muscle pattern speech vehicle

1. I've hurt a _____ in my leg and I can't walk very well.
2. Your brainwaves form a _____ that a computer system can follow and analyze.
3. Soon, almost every _____ on the road will have computer technology in it.
4. When you press this _____, the computer starts.
5. My phone does a good job of turning _____ into text messages.

Comprehension

Choose the correct option.

1. Technology that understands human speech ...
a has existed for decades. b is used by many people. c is not common.
2. When a person's brainwaves are measured by a computer, ...
a it counts their thoughts. b it makes the person think. c it responds to their thoughts.
3. Using this technology, wheelchair users will be able to ...
a think more clearly. b use telephones. c move with their minds.
4. This technology may help with driving because it ...
a reacts faster. b predicts accidents. c has more driving experience.
5. In video games, this technology means you don't need ...
a characters in the game. b a mouse. c a VR headset.

Thinking

What other applications for this technology can you think of?