

What is the future of artificial intelligence (AI)? Will robots become as intelligent as humans? Or more intelligent?

Preparation

Match the vocabulary with the correct definition and write a–f next to the numbers 1–6.

- | | |
|-------------------------------------|---|
| 1..... a robot | a. an enemy |
| 2..... an algorithm | b. a computer-controlled machine which can perform jobs without human input. It may have a human-like body |
| 3..... artificial intelligence (AI) | c. mathematical instructions which help a computer calculate an answer to a problem |
| 4..... a drone | d. the field of science concerned with producing machines with qualities of the human mind, e.g. the ability to understand language |
| 5..... a foe | e. independent, with the power to make your own decisions |
| 6..... autonomous | f. an aircraft without a pilot which is controlled by a human on the ground |

Robots: friend or foe?

What is the future of artificial intelligence (AI)? Will it be possible for robots to be autonomous? If so, when will that happen and will it be a good thing? We asked four experts what they think.



I would say that we are quite a long way off developing the computing power or the algorithms for fully autonomous AI, though I do think it will happen within the next thirty or forty years. We will probably remain in control of technology and it will help us solve many of the world's problems. However, no one really knows what will happen if machines become more intelligent than humans. They may help us, ignore us or destroy us. I tend to believe AI will have a positive influence on our future lives, but whether that is true will be partly up to us.

A



B



I have to admit that the potential consequences of creating something that can match or surpass human intelligence frighten me. Even now, scientists are teaching computers how to learn on their own. At some point in the near future, their intelligence may well take off and develop at an ever-increasing speed. Human beings evolve biologically very slowly and we would be quickly superseded. In the short term, there is the danger that robots will take over millions of human jobs, creating a large underclass of unemployed people. This could mean large-scale poverty and social unrest. In the long term, machines might decide the world would be better without humans.

Personally, I think it's fascinating to consider how we'll speed up our evolution as a species by augmenting our bodies. Imagine if you could implant a computer inside our brain! Soon we'll be able to do just that and enhance our mathematical ability, audiovisual perception and our memory, and this idea is only going to become more and more commonplace. AI is also popping up in the world around us. Recent developments include self-driving cars and drones carrying life-saving equipment to people at sea. Granted, there have been a few teething problems: one woman who was asleep on the floor had her hair eaten by her robot vacuum cleaner and there have been fatal accidents with self-driving cars. But progress always comes at a cost, and for me the advantages far outweigh the disadvantages.

C



D



I'm a member of the Campaign to Stop Killer Robots. Forget the movie image of a terrifying Terminator stamping on human skulls and think of what's happening right now: military machines like drones, gun turrets and sentry robots are already being used to kill with very little human input. The next step will be autonomous 'murderbots', following orders but ultimately deciding who to kill on their own. It seems clear to me that this would be completely unethical and dangerous for humanity. We need to be very cautious indeed about what we ask machines to do.

1. Check your understanding: multiple choice

Read the questions and choose the correct expert (A–D). Each expert may be chosen more than once.

1. Which expert has a different view from the others regarding the timescale of AI becoming more autonomous?
 a. A b. B c. C d. D
2. Which expert has a similar view to A about the responsibility humans have for the future of AI?
 a. A b. B c. C d. D
3. Which expert agrees with B that the negative aspects of AI far outweigh the positive aspects?
 a. A b. B c. C d. D
4. Which expert seems to disagree with B about how fast humans can change?
 a. A b. B c. C d. D
5. Which expert gives their opinion about what will happen with the same level of certainty as D?
 a. A b. B c. C d. D

2. Check your understanding: matching

Match the verbs with the correct definition and write a–f next to the numbers 1–6.

- | | |
|------------------------------------|---|
| 1..... to develop | a. to go beyond |
| 2..... to supersede | b. to start doing something someone else was doing |
| 3..... to take off | c. to replace something older or less advanced |
| 4..... to take over (from someone) | d. to suddenly start to be successful |
| 5..... to surpass | e. to develop gradually (especially for a biological species) |
| 6..... to evolve | f. to grow or improve, or to make something grow or improve |

Discussion

Which of the points in the reading do you agree with?

Do you see robots as friends or foes?