



An Iranian driver uses an online taxi service to find potential passengers.
● ASRIRAN

Can you tell us more about the competition?

The first stage of the competition, or the preliminary stage, spanned for about a month from October 17. In this stage, participants competed with each other online. In the end, the top 150 teams moved on to the next stage. This stage was attended by around 10,000 people from 57 countries.

The second stage or the selection stage of the competition was also held online in November. In this stage, three questions related to the topic of trustworthiness in artificial intelligence were raised, and the top 15 teams with the highest scores were selected for the final stage. These teams moved on to the final stage to be judged by local and international judges.



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What risks do AI's imitations pose for social and emotional relationships?

In this area, too, AI has its pros and cons. Take ChatGPT, for example. It's a chatbot that simulates human-like conversations. Many people are currently using it to meet some of their emotional and relationship needs. Studies have shown smart chatbots to be helpful here and there, including in cases where people need to vent to somebody or a therapist.

But there's this concern that AI chatbots can pick up on the vast amount of information available on the internet and use it to generate conversations, which raises the risk that their conversations might veer off in a particular direction or be manipulated to serve specific purposes. Now, there are models that are specifically designed to fuel such misinterpretations and are called adversarial or hostile models. These models start disrupting the learning process of machine-learning models, just like a cyber-attack or hacking attempt. Such actions can cause other machines to spiral out of control and produce incorrect outputs because they don't pick up on it and just act based on the data they've been fed. And so, if the learning process is disrupted or incorrect data is inputted, it can lead to bad advice and cause problems.

In the international AI program we ran last year, we actually set aside a major part of the competition to focus on the topic of trustworthiness in learning. The idea was to figure out how to ramp up the reliability of AI and take steps to ensure that these hostile attacks don't have a significant impact on machine learning, or at least minimize their impact. This is what's known as trustworthy machine learning, and it just so happens that the main theme of this year's AI competition was also centered around trustworthiness in learning.



Astribot S1, a Chinese robot, flips a sandwich in a frying pan. The model has shown "astounding speed and precision," even pulling a tablecloth from beneath a stack of glasses, without breaking any.
● cyberguy.com

Humans have witnessed various eras of history, such as the Industrial Age, the Age of Communication, and so on. Will the impact of artificial intelligence in the coming years be so significant that we can call it the Age of Artificial Intelligence?

The arguments for it have been very seriously raised, and it is said that this era has already begun, and we are currently in it. Given the rapid progress being made in the field of artificial intelligence, we can give this name to the new era.

The progress of artificial intelligence in recent years has been beyond expectations, and now the talk of superhumans has been brought up, meaning we may be able to make machines that surpass human capabilities. Now, there are claims that machines have been built that can perform at the level of some human functions, such as robots or machines that can speak and produce new and varied sentences and expressions like humans. Until now, machines could only respond based on what they saw or heard, but now generative models produce things that did not exist before, even in the fields of art and music. In fact, machines have become creative, doing things that were previously exclusive to humans. Creativity has been transferred to machines, and machines can perform tasks similar to humans.

Currently, the subject of global studies — the results of which have not been leaked so much — is the topic of powers beyond human capabilities or superhumans. They can be more dangerous. We may reach a point where humans may be under the control of machines, and intelligent robots may dominate humans. In terms of the capabilities of robots and artificial intelligence, we are moving rapidly in that direction.

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People take part in a demonstration, as part of the campaign 'Stop Killer Robots' organized by German NGO 'Facing Finance' to ban what they call killer robots, in front of Berlin's Brandenburg Gate on March 21, 2019.
● DPA/AFP

Can intelligent robots completely replace humans?

It's not a definitive yes or no answer. To answer this question, we need to see what the

main characteristics of humans are, as there is a lot of disagreement in this area. What distinguishes humans from other living beings? All things considered, perhaps machines will

not completely replace humans, but they will be able to do many of the things that humans used to do. My personal opinion is that they cannot completely replace humans.

