

Robotics In Our Life

Yevhenii Kapeliushnyi, Vladyslav Khotunov, Kutsevskiy Serhii*

ISMA University of Applied Science, Latvia

Cherkasy state business college, Ukraine

*Corresponding author's e-mail: akonvict160@gmail.com, vkhotunov@gmail.com, greynny@gmail.com.



Abstract

Will artificial intelligence help humanity or destroy it? This is disputed by the most prominent scientists and developers. Inventor Elon Musk, physicist Stephen Hawking and Microsoft chairman Bill Gates warn against the development of artificial intelligence, but other scientists and celebrities such as Mark Zuckerberg, programmer and founder of Facebook, see the benefits for all mankind in the use of artificial intelligence.

Keywords: robotic, work, robot

1 Introduction

Hiroshi Ishiguro is a Japanese who creates robots, known for developing realistic androids, created a new robot boy who looks 10 years old and copies human facial expressions. The facial expressions of the android actually repeat the human, plus the added involuntary movements that an ordinary person makes - blinking, movement of the head and eyes. The robotic boy has a transparent "skull". The professor believes that it is important to create such robots, because someday robots will become a part of our lives.

The inventor thinks that human-like work will be truly integrated into society - not only to automate production or as a labor-saving device, but also as a replacement for the physical presence of man...

Overview

A robot is an electromechanical, pneumatic, hydraulic device, program, or a combination of both that works without human intervention.

Every year the works improve and become smarter, but still their artificial intelligence is not equal to human.

Consider the top 5 original robots today:

- Fashion robot - This robot is designed to clearly show how the clothes that the user liked will look on it. The robot is created from fragmented pieces, each of which is able to change its location. As a result, the robot can change its size from minimum to maximum. This robot was created by Estonian developers.
- Robot that washes hair from Panasonic - Of course, you can't call this work practical - it's so easy to wash your own hair or entrust this responsible task to a hairdresser. Well, if a person likes modern devices, he will probably like this robot, which is able to remember the individual characteristics of

man, using those procedures for his hair, which is necessary for this individual. The robot scans the head, translates it all into a 3D model to determine the optimal amount of shampoo or massage treatments, which the robot is also able to do.

- Robot bartender with Lego - This robot knows how to mix cocktails and does it well. The robot understands language, so it is able to accept any order, if you say it clearly enough.
- Robot neurosurgeon - This is one of the most advanced devices of today. In order to create a robot that is really capable of performing complex brain surgery, it was necessary to spend a lot of time and money. As a result, the robot surgeon is ready and recently performed his first operation, removing the tumor from the patient's brain. The operation lasted 9 hours and was very successful.
- Cubinator - The robot that quickly makes up the most intricate Rubik's Cube is capable of doing so in just 18.2 seconds. The robot was entered in the Guinness Book of Records in 2010.

Decision

Consider areas of activity in medicine in which it is advisable to use robots:

1) Works – couriers Specialized "couriers" who will deliver medicines, tools, linen, food and everything else that can be transported will also be useful for medical institutions. One of the most famous such machines - TransCar LTC 2 (a platform on which you can put including bulk containers) or Tug (reminiscent of a mobile cabinet).

In turn, the Omnicell M5000 optimizes drug handling. Often patients are prescribed several drugs at the same time, and this machine forms the appropriate "kits" for each patient for several days, spreading tablets and capsules in blisters. The speed of the Omnicell M5000 is 50 sets per

hour, while the average human specialist has 4 sets per hour. The robot helps patients by packing medicines according to the doctor's prescription for several days.

This device is a great example of how intelligent robotics can take on routine tasks to free up time for something more important.

2) The use of robots in surgery - Of course, the use of robots in medicine is advisable in cases where only fine work is required. Intelligent devices can make treatment more effective and less traumatic for the patient, reduce the risk of complications. One of the most "robotic" areas of medicine is surgery. The work literally becomes the hands of doctors, participating in complex operations.

Perhaps the most famous and high-tech robotic surgeon can be called the da Vinci system. At this stage, the robot does not operate alone, but only obeys the commands of the doctor. The latter sits behind a special console and controls the machine with joysticks and pedals. He watches his work through a special screen, which displays a magnified 3D image in HD quality. Another assistant is in the robot itself and helps to switch between tools. The tasks of da Vinci medical robots are very broad: they are used to perform operations (including complex and atypical) on the heart, thyroid gland, pelvic organs and abdomen. The da Vinci system is actively used by doctors in many countries.

3) Works – secretaries - As in many other fields, robotics in medicine helps doctors with the same type of tasks that take a lot of effort and time, but which do not require significant mental effort or decision-making. These include patient registration, working with electronic cards, providing background information. Many secretarial robots have already been developed and are used in a variety of fields. It is likely that in the future intellectual work will take over much of the administrative work in medical institutions.

References

[1] What is robotics?: URL: <https://academyua.com/ua/stati/32-shcho-take-robototekhnika>

Conclusion

Positive impact on human life from the introduction of robots:

- The works can work in harsh and dangerous climatic conditions, they are used in the development of mineral deposits.
- Using robots to perform typical actions.
- Since the works themselves are a product of high technology, their development and implementation in production requires the development of an entire branch of science and industry, which provides a large number of jobs. The knowledge gained in the development of robots can be applied in a variety of areas.
- Negative impact on human life from the introduction of robots:
- Today, many scientists are concerned about the introduction of robots in our personal lives, especially "home robots", which will be able to collect personal data about the house and the user and pass it on to others.
- Equally important is the perception of humanoid robots as living organisms.
- The Swiss think tank estimates that 75 million jobs could be lost by 2022 due to robotics.

According to other scientists, advances in computer technology will provide approximately 133 million new jobs.

Therefore, the question of the benefits or dangers of robots remains open.

The future is coming now and we need to give robots the right place in our lives so that we do not feel their superiority over us.

[2] Intelligent machines: URL: <https://www.everest.ua/robototekhnika-dlya-osoblyvo-nebezpechnyh-robot/>

[3] Robotics: URL: <https://robotica.in.ua/>