

ARTIFICIAL INTELLIGENCE – SMART HOME

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The purpose of this work is to consider artificial intelligence namely its interaction with humans on the example of “Smart Home”.

Artificial Intelligence (AI) – is a science and development of intelligent machines especially intelligent computer programs. It is similar to the work of the human brain. It is a mathematical apparatus with an electronic part that can work with information as a person.
[1]

Artificial Intelligence has caught people’s attention a long time ago. However, a few people understand what technologies can do and what we should expect from them. Algorithms help us to solve problems that previously could not be solved, and also make our lives more convenient and comfortable.

Artificial intelligence is an effective and at the same time dangerous technology. The main property of any intellect is the ability to learn. Its behavior depends on what it will learn among people. People can teach it specific actions on purpose. Maybe it can be compared to a child. Thus, there can be "bad" and "good" robots just like people.

Artificial intelligence changes our lives every day: the transformation of the working environment, smart infrastructure, simplified passport control at airports, unmanned vehicles and smart applications - technology has become a regular part of reality, they are everywhere. However, the most comfortable place for a person is still a house, for which many smart solutions have been developed.

A smart home is a modern product of digitalization that works on the basis of artificial intelligence. It is believed that living in a house with such settings makes life easier.[2]

The Functions of Smart system

Automation. The future of home automation is an intelligent environment that can set the desired temperature by turning on the air conditioning some time before the owner returns home; open the curtains or turn on the music, start making coffee, etc. Sounds incredible, but today there are centralized systems that can perform simple household tasks while the owner is not at home.

Security. The use of artificial intelligence and neural networks of deep learning is actively taking place in social networks. For example, Facebook uses face recognition technology, its accuracy is 97%. "Smart" security systems in factories are equipped with motion sensors and smart cameras: they can detect the threat of burglary and can even call emergency services.

Energy efficiency. Energy saving is important not only for the budget of a particular family, but also for the planet as a whole. Energy efficiency is a pressing issue related to climate change and the energy crisis. Energy consumption of household appliances while it

is not in use. Home automation, performed by artificial intelligence, reduces energy consumption and carbon dioxide emissions by controlling "smart" thermostats, connectors and light sensors.

Disadvantages of the system. The main disadvantage of the "smart home" system is the high cost of equipment and all sorts of sensors; and it is especially unpleasant when expensive equipment fails and needs to be repaired.

Another disadvantage is the complexity of installation. Without the necessary experience, electricians and repairmen can do mistakes, so choose a master who has already worked with the installation of a smart home system and knows exactly how to do it. The house must work smoothly and clearly, because all the elements in such system are interconnected and you can not make even the slightest mistakes during installation.

Ukrainian developers have already reached smart offices. When the room not only measures the temperature, but also counts the number of people and whether they keep their distance.

Conclusions: Considering this topic, we can sum up that artificial intelligence has both advantages and disadvantages. We live in a time of incredibly rapid technological progress. These technologies have a number of benefits that make people's lives easier and make everyday things very simple. Of course, technologies have their drawbacks, which will improve over time. It is predicted, that in a few decades, whole smart cities will be created and 50% of the world will consist of "smart homes"

References

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