Константинова А.С.

Научный руководитель : ст. преподаватель Мацкевич К.О. Муромский институт (филиал) федерального государственного образовательного учреждения высшего образования «Владимирский государственный университет имени Александра Григорьевича и Николая Григорьевича Столетовых» 602264, г. Муром, Владимирская обл., ул. Орловская, 23 E-mail: nfilipenko24@gmail.com

Holograms: yesterday, today, tomorrow

Holograms have a wide range of possible applications. Already today, they are actively used in various areas of our lives. My research will help to assess the prospects of technology in the future.

The purpose of my work is to identify the strengths and weaknesses of holograms, as well as their demand in the coming years in various areas of our lives.

Hologram is a technology of creating a three-dimensional image using a laser. Holography makes it possible to project a full 3D model in real time.

The first idea of creating holograms appeared in 1948. It was proposed by physicist Dennis Gabor. Then it was not possible to implement it because of poorly developed technologies. Today, things have changed. The idea of holograms is not only comprehensively developed, but also actively applied in practice, improved. The technology is involved in the field of:

- communication;
- educations;
- cultures;
- modelings;
- advertising and marketing.

There are many examples of holograms being used today. In 2017, Verizon and Korea Telecom organized the first international holographic call. As part of the HoloLens project, Microsoft has already created multifunctional virtual reality glasses. In 2017, the first holographic advertising objects and Museum exhibits appeared.

Despite the great progress in the field of holography, the technology is not perfect. For example, international calls require a 5G connection, which is only available in some countries of the world. The equipment is bulky and requires constant and long-term setup. The list of major issues also has a high cost, making the product inaccessible to most people.

However, in the near future holograms will surely become a part of every person's life. They will make portable devices and various computers is a compact and multifunctional. With the help of a special projector in the apartment it will be possible to create a beach, cultural object or any other place on the planet. Moreover, in full size. Popular social networks and messengers will provide users with the opportunity to exchange messages, make video calls and perform other operations using hologram technology. The technology will find its application in medicine. With the help of holograms is quite realistic to conduct accurate and rapid diagnosis. The use of technology in construction will reduce risks and increase the reliability and durability of structures.

In the course of my research, I found out that holograms are a global project with great chances of success. Many of these disadvantages, thanks to the creative approach of scientists from different countries, will soon be eliminated. The development of technologies will help to create compact, functional, inexpensive devices. To someone they will help to realize dreams in reality, to others-to open new horizons, the third will simply make life easier and more convenient.