

VIRTUAL REALITY AND ITS IMPORTANCE IN MODERN LIFE

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ABSTRACT

This article provides information on virtual reality, reality, virtual reality, the concept of virtual reality and its application in various fields. Also, opinions about the importance of virtual reality in today's modern world, its specific features and virtual reality technologies are also presented.

Keywords: virtual, reality, virtual reality, technologies, software, education, industry, virtual devices.

Nowadays many industries have realized the huge potential of bringing them into their fold and bringing exclusive use of immersive reality to the entertainment industry. Because it is very important for industry, medicine, economy, education, and such technologies contain great advantages.

Virtual reality, or Virtual Reality (VR), is a simulated environment manipulated by software and hardware that allows the user to immerse themselves in a digital environment that may or may not look realistic, depending on their preference. This transition to virtual reality is achieved thanks to the implementation of various devices that place the user's feelings in an artificial environment. The senses of sight and hearing are more used thanks to the use of virtual reality viewers and sound headphones.

There are also differences between virtual reality and augmented reality. Due to their characteristics and environment, these two concepts are often confused by many people. The difference between VR and AR (augmented reality) is their integration with physical reality. Augmented reality adds or prints objects to physical reality using cameras or screens, while virtual reality offers a 100% digital environment that represents a completely imaginary. The example of augmented reality is Instagram or Snapchat filters, which users can change their faces and environments on their screens. It is easy to differentiate between these two types of technologies due to the constraint that the appearance state is closely related to reality.

How does virtual reality actually work? Virtual reality can be divided into 3 types of operations:

- a) immersive,
- b) non-immersive;
- c) semi-immersive.

Due to the use of a non-immersive monitor, in this mode we use the keyboard, mouse or special part controls to control the environment. This is the most common model in different video games.

Virtual Reality Devices: There are several ways to access content created in VR, the most common being virtual reality headsets or virtual reality goggles. These external devices are also known as HMD (Head Mounted Display) and are distinguished by having a built-in screen. Virtual reality or reality can be used in several fields. The popularity of VR systems can be attributed to entertainment purposes, particularly the video game industry. Different industries have opened up to implementing immersive technologies to improve processes or test new alternatives to use virtual reality devices and technologies.

Industry. The introduction of virtual reality and augmented reality technologies for different industries is becoming useful at different levels of their organization. It helps a lot, from training employees, reducing processes from two days to a few hours, to presenting products or production models to customers.

Education. It is one of the broadest areas of immersive technologies that can cover almost all levels of education, from pre-school to school, college, university and researchers. The main goal is to be as simple as it is didactically perfect, learning in an interactive environment that looks real, allows mistakes without consequences, and improves learning efficiency. Some of the fields of knowledge that virtual reality tools use include various activities such as engineering, architecture, medicine, neuroscience, various health sciences, art, and even psychology. The connection between VR and learning has many advantages. For example, it provides hands-on support for the ability to bring students into real-world environments to increase understanding or maximize the learning experience without fear of making mistakes.

Medicine. Health sciences have been one of the fields that have benefited the most from technology. Medical students and future doctors will be able to experience surgery without entering an actual operating room or putting another person's life at risk. This will serve as practice.

Psychology. Virtual reality has also made it possible to create new alternatives for the treatment of eating disorders or phobias such as aerophobia, social phobia or agoraphobia.

Film industry. This has been one of the most studied areas, as several companies, usually focused on cinema, have taken to virtual reality or reality with the intention of providing new experiences to their consumers. This factor strikes a perfect balance between cinematic knowledge, storytelling and technology. Companies like the popular Netflix have made extensive use of virtual reality devices to offer more content for their popular series.

Video games. The introduction of VR technology into the video game industry has been a radical change in the approach of developers. Because it's one of the areas where more innovation has been created due to the glitches in the features and feedback that players can often explore the environment.

Tourism. The opportunity to discover the wonders of the world without leaving your home has already become a reality. Travel companies have digitized places like cities, resorts and even cruise ships using virtual reality devices to give their potential customers an innovative experience before they decide to travel.

Military sector. In many cases, the technologies we enjoy every day are created in the search for better defense systems. VR integration for the military industry can help soldiers become more fully trained and put them in real-life situations where decision-making is critical.

In conclusion, the virtual world is showing its practical importance in many fields. Modern technologies like these make our daily life easier and help people. Development in the fields of education, sports, economy, art, music, tourism and medicine is being carried out with the help of VR technologies.

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