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VIRTUAL REALITY: REAL POSSIBILITIES IN DAILY LIFE

Over the past few years, humanity has made an amazing leap forward in technology. We have reached boundaries that were previously considered impossible, such as recreating virtual environments with a computer. Three-dimensional space can be accessed and explored by people. VR was known primarily as a plot or mechanism in science fiction films such as “The Matrix” and “*Ready Player One*”, but now the technology is increasingly being used in the real world, with applications ranging from gaming and entertainment to medicine and the military. This is possible thanks to VR headsets such as the Oculus Rift or Apple Vision Pro.

So what is virtual reality? Virtual Reality (VR) is a type of reality that is created and exists thanks to another reality. It is a simulated 3D environment created with computer hardware and software. In a narrow sense, it is an illusion of reality created by a computer system that provides visual, auditory, and other sensations. Virtual reality requires specialized equipment such as headsets that provide visual and audio information. This equipment transmits the user's movements to the virtual world. The images can be based on photographs, videos or computer-generated. VR systems can be classified into three categories: non-immersive, semi-immersive and fully immersive.

Non-immersive virtual reality refers to a virtual experience through a computer where you can control some characters or activities within the software, but the environment is not directly interacting with you. Technically, you are dealing with a virtual world, but you are not the centre of attention in the game. Users interact with it using input devices like mice or a keyboard. Offering a partial virtual experience, semi-immersive VR can be accessed through a computer screen, glasses, or a headset. It is a mixture of non-immersive and fully immersive virtual reality. It focuses primarily on visual 3D aspects and lacks full physical movement integration. And type with the highest level of realism, that completely immerses users in a simulated 3D world is fully immersive. It engages multiple senses, including sight, sound, and sometimes touch. Users wear specialized equipment like goggles, helmets, or gloves. Some experiments even incorporate smell.

It is important to remember that virtual reality and augmented reality are different things. While the names of these technologies are similar, augmented reality (AR) does not offer users the ability to explore a complete digital reality but instead is a technology that adds additional content to the real world around the user. In augmented reality apps, when you point your phone's camera at a particular scene in front of you, the app magnifies the scene in front of you. For example, some AR apps provide additional information about nearby objects (for example, information about plants or crops) when the phone is pointed at an object.

There are several brands of virtual reality glasses on the market today, including Meta Quest Pro, Fibrum Pro and Samsung Gear VR. But the most popular and mainstream brands are Meta and Apple Vision Pro. Vision Pro is a revolutionary spatial computer that redefines the way we interact with digital content. Vision Pro is a great invention - for example, you can walk through a park and write an essay with just a pair of glasses.

As a rule, virtual reality is mostly used for gaming and watching movies. But in the fields of science, design, education, and the military, VR is becoming quite popular, and soon virtual reality will become a daily routine. For example, shortly, people will be able to perform virtual surgeries to prevent real-world risks.

Studying the impact of virtual reality on human psychological states is an emerging field of psychological science. Scientists are conducting several experiments to determine how interaction with virtual reality affects such aspects as emotions, attention, perception, and fear.

For example, one study showed that VR use causes significant changes in people's emotional state. Some people also experience a "presence" effect when they get tired of interacting with the virtual environment.

Opening the door to new opportunities in education, entertainment and industry, virtual reality reflects current technological developments and continues to evolve, influencing the way we understand and interact with the world. More and more people are interested in virtual reality and optimistic about how it will change their daily lives.

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