

VIRTUAL REALITY

Virtual Reality (VR) is an artificial computer – generated world that can be experienced and interacted with. Technically, any video game ever created is Virtual Reality no matter what device it is played on. But nowadays this term is used to refer to experiences where people use special equipment to completely substitute the real world with the virtual one. The main tool of VR is HMD (Head Mounted Display). A head-mounted display (HMD) is a type of computer display device or monitor that, as we can understand from its the name, is worn on the head or is a part of a helmet. This type of display is intended for a total immersion of the user in whatever experience the display is meant for, as it ensures that in spite of where the user may turn his head, the display is positioned right in front of the user's eyes.

VR operation is based on the following processes and principles. Video is sent from the console or computer to the headset via a HDMI cable in the case of headsets that are used with PCs and consoles such as HTC Vive and Oculus Rift. If smartphone headsets are used, it's the smartphone that serves as a display. VR headsets can use either two feeds sent to one display or two LCD displays, one per eye. There are also lenses which are placed between user's eyes and pixels. That is why the devices are often referred to as goggles. These lenses focus and reshape the picture for each eye thus creating a stereoscopic 3D image by angling the two 2D images to mimic how each of our two eyes views the world in a slightly different way. Another important part of VR operation is head tracking. As the name implies, head tracking means that when wearing a VR headset, the picture in front of you changes its position as you look up, down, around or angle your head.

Virtual reality has a long history, with a concept dating as far back as 1930s. In 1935, an American science fiction writer Stanley G.Weinbaum presented a comprehensive and specific fictional model for virtual reality in his short story Pygmalion's Spectacles. The development of VR headsets actually started in the 1960s. Just 30 years from the original thought of a VR headset, Ivan Sutherland created the very first VR headset for military applications. Using a specialized military software as well as a motion control platform, the first VR headsets were designed to be used in training exercises. In the 1990s, VR headsets were used in a number of arcade games for simulations. Nintendo announced the first home VR system the same year. Virtual Boy was one of the first home systems available for use with a widespread appeal. Sega also introduced a Sega VR headset for the Sega Genesis console in the year 1993. These wraparound prototypes had a stereo sound, LCD (liquid-crystal display) screens and head tracking. Unfortunately, these projects did not succeed due to several reasons: headsets and VR games were expensive; games were entirely made in two colors – red and black; there were only a few pieces of software available with the device; consoles were very uncomfortable to use.

VR has been gaining popularity in the last 5-6 years. In April 2012, an American company Oculus VR announced the Rift, a virtual reality headset designed for video gaming, and launched a Kickstarter campaign in August to make virtual reality headsets

available to developers. The campaign turned out to be successful and in March 2014, Facebook acquired Oculus VR for 2.3 billion dollars. Later in 2015, Oculus began to take over other companies like Surreal Vision and build partnerships with Samsung to develop the Samsung gear VR. As one of the leading companies in VR development, Oculus offers fully functioning VR systems for consumers to purchase and use at home. With support for a wide range of applications and further applications being developed for specific use with their VR systems, this was a huge leap forward for VR. Oculus VR and its product Oculus Rift headset made a huge push forward in terms of virtual reality market. Many big companies started to develop VR headsets and such powerful headsets as HTC Vive, PlayStation VR saw the world.

Nowadays, 3D graphics are getting still better, with the processing power of smartphones, tablets and PCs growing exponentially and more developers being involved in different VR projects. VR is used in many areas of human's life such as military trainings, healthcare, fashion, business, entertainment, media, scientific visualization and more. It is growing very fast and becoming more affordable. In fact, you can experience Virtual Reality using a smartphone and a simple VR headset Google Cardboard. Millions of HMDs are sold and the number is only growing. Based on the above, in the next 10-15 years VR will be as common thing as the Internet.

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ACTUALITY OF MANAGEMENT IN FOREIGN ECONOMIC ACTIVITY

Foreign economic activity includes types of business operations that are aimed at the management of Ukrainian entities outside Ukraine and foreign economic entities from other countries in Ukraine.

The problems of increasing the participation of countries in the international division of labor in various forms of international business are becoming more and more relevant. There is an economic integration today: most goods either enter the market through foreign trade, or are made using imported components.

It should be noted that the process of Ukraine's entry into the integration system of world economic relations depends on the quality of the accepted management decisions in the field of foreign economic activity. Any international and domestic business operations are the prerogative of management actions relating to forecasting, planning, organization, motivation, management, control, etc.

The management of foreign economic activity concerns the application of general ideas and corresponding concepts of management in all forms of foreign economic activity i.e. export and import of goods and services, leasing operations, direct investment, etc. The essence of the management of foreign economic activity is in the complex study and modeling of the international environment, the established mutual relations of all units and officials of a particular organization or institution in the interests of developing productive foreign economic strategies.