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The societal and economical impact of virtual reality

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Abstract

Immersive VR advances researchers' goal of investigating human perception in a controlled and ethical manner while using incredibly realistic stimuli that test subjects may actively explore.

VR is also contributing in every sector as well. The most common application fields of virtual reality are in the entertainment industry that includes video games, 3D motion pictures, gloomy rides in amusement parks, and communal virtual environments. In the early to mid-1990s, video game firms firstly introduced virtual reality headsets for patrons. According to Marr (2021), Alzheimer's disease, schizophrenia, and glaucoma are currently detected via virtual reality. It has also started to define itself as a helpful tool for treating dementia, autism, PTSD and anxiety-related conditions. PTSD and anxiety are known to react well to VR exposure treatment. Numerous more benefits may result from time spent in virtual reality. A teaching and evaluation tool for surgery is offered by Osso VR. More companies are utilizing VR experiences as they become more reasonably priced to teach staff members on business practices and help them hone the soft skills needed for jobs like customer service and public speaking. Virtual reality (VR) aids banks in producing engaging user experiences. For instance, companies may use interactive VR apps to teach clients about the stock market and investing also improve several areas of their customer experience.

Modern virtual reality headgear visuals are constructed on technology from smartphones, including compact HD screens, lightweight, small and quick computer processors and motion sensors for detecting the locations of the head, torso, and hands. Reality-Based Experience; When you put on a headset, it seems as though you are actually in another place and having a realistic involvement. Fighting zombies in VR games becomes a lot more realistic experience because your character can move. This is the contribution of VR in a nutshell.

Keywords: Virtual reality (VR), Immersive technology, Virtual environments, VR headsets, VR treatment, VR and education, VR impact on society, Virtual experiences, VR gaming addiction.

Introduction

A virtual reality (VR) environment creates the illusion that the user is completely submerged in a world full of objects and images that look realistic. Seeing this environment requires a virtual reality headset, helmet, or additional equipment.

The rapid advancements in virtual reality technology have paved the way for its widespread application in various domains. Initially popularized in the gaming and entertainment industries, VR has transcended the boundaries of mere leisure and has found its way into numerous other fields, including education, healthcare, training, and even therapy. According to Bao (2022), Noteworthy developments have been observed in the students' overall quality evaluation of the VR technology group, where 75%, 61%, and 81% of students, respectively, are satisfied with the classroom atmosphere, teaching style, and teaching facilities. As a result, the potential applications of VR are continually expanding, and its impact on human experiences and perceptions is ever-growing.

Methodology

According to Jayaraman (2022), “about 53 million US adults currently own a VR system, and more than a quarter of teens (26%) own a VR device”. An additional 14 million US adults will likely purchase one in the next six months. This indicates that there will be 14 million more users of the VR system in 2022 hence, increasing the market's growth rate in the US by 21%. (p. 2) Which clearly shows that it is a famous device among people of the modern world.

Arguments and Counter arguments

Every technology has both positive and negative aspects, and virtual reality (VR) is no exception. According to Sahas (2019), Virtual reality can be remarkable and enlightening. Moreover, it can also aid people feel less stressed by allowing them to experience a different environment through virtual means. On the contrary, Virtual reality is extremely expensive and some people can quickly develop an addiction to it.

- In the above, it has been written that the amount of time spent connecting with people and other things in the real world may gradually decline as a consequence of increased social media use. But through using VR our young generation can see the outside world and they can get more knowledge about the outside world.
- In the above it is also seen that it creates social problems-relationship issues, antisocial behavior, disrespect, unnecessary mood swings and so on. Through the use of VR, people are not limited to communicating only within their own country; they can now interact and communicate with people outside their country as well.
- On the other hand, VR can be used to train people for their particular job and skilled them up in graphics and technologies. But it can reduce the physical job place because through the VR process one person can do the work of many people at home very easily and more efficiently.

Mental Health and Social Problems

According to Ryan (2017), the rapid indulgence created by cellphones and social media has condensed people's attention spans. Well the modern world is completely based on technology. But sometimes this blessing becomes a curse. Many of our intelligences and several examples of modern technology are tricked by VR. Virtual reality is one of them. Well excessive use of virtual reality may distort users' personality of reality. They become obsessed with virtual social life which often leads to escape from reality. This is highly likely to result in mental disorder. People are more inclined to lose themselves in between reality and daydream as they get more and more obsessed and addicted to the virtual world. Furthermore, they don't want to enter the real world because the virtual world has already become their actual

world. Consequently, it creates social problems- relationship issues, antisocial behavior, disrespect, unnecessary mood swings and so on. Although with the help of VR, many risky sports, like bungee jumping, can be made, the technology still has certain drawbacks. According to Shields (2023), after using VR headsets, many people reportedly felt nausea, headaches, eye strain, and dizziness. Several users of VR headsets have reportedly experienced discomfort, vomiting, blurred vision, and disorientation after using them. These symptoms are brought on by the VR illusion, which allows the eyes to focus on objects that are actually only a few centimeters away on the screen but appear to be far away. Constant fatigue of the eyes will eventually result in more severe eye problems in the future (para. 3). It affects students directly. It is not only killing their time but also it engages their mind always in virtual thought.

Hidden creative benefit of Virtual reality in Bangladesh

Mulgan (n.d.) stated that The difference between reality and virtual reality is becoming more and more unclear as the Internet of Things expands which can sometimes be in interesting ways. A method to automate the construction of the artificial world using software is virtual reality. VR is used to make someone feel that person is now in a unique universe beyond imagination. This procedure allows humans to encounter human senses like (hear, touch, sight). VR has many purposes where it can be used in medical, architecture, robotics, education and many more. First In Bangladesh recently 4 out of 5 people suffer from chronic disease and it's too difficult to treat these patients effectively. VR was able to show what their unique feature is. We can see that in America they have appeared with treatment where they use VR as a medium and they found positive results of their therapy where 33% have felt that this technology has reduced their chronic pain at 100%. According to Wetsman (2021), the FDA has accepted virtual reality therapy as an approved treatment for chronic back pain. Moreover, our youngsters most likely play games using VR. In Europe many countries encourage their youngsters to participate in VR related gaming platforms because through this they can earn money as well as they can use their creative imagination to build new projects. But in Bangladesh most families think VR is a waste of time and it will hinder their children's creativity and academic results. Moreover, VR can be used to train people for their particular job and skilled them up in graphics and technologies.

Potential to Impact the Economy

VR has the possibility to significantly influence regional and worldwide economies, particularly in the field of e-commerce as well as other industries. An immersive shopping experience can boost customer engagement and sales by allowing shoppers to sample and experience things before purchasing them. Using augmented reality to try on eyeglasses and see how they fit is one example of this. Another example is the tourism and real estate industry. Without actually visiting, people can digitally experience the retail and residential spaces. This way real estate agents can show and grant access to a larger number of potential buyers. Another major field where VR can largely affect the economy is how people are trained. Since it provides a training environment that is significantly safer and more time-effective, it can be implemented to train workforce in a range of industries, such as healthcare, manufacturing, and construction. This not only cuts costs but also provides a deeper understanding of a topic to visual learners. As visual learning can help you understand more than just reading guides and manuals. According to Program-Ace (2021), VR training can help professionals learn how to work with heavy equipment like cranes and excavators. It can actually show what you are dealing with like specific heavy machinery. The crane simulator from Industrial Training International allows learners to practice their operating abilities, such as turning booms, keeping weights level while moving goods, and catching the swing. The local economy can benefit immensely from this as it will pave the way for a more skilled workforce.

Solution

Virtual reality is integral to both our society and day-to-day living. In the current world, it has become so intertwined with our life that we cannot live without it. According to Omega Recovery Treatment Center (2021), spending hours playing VR games can lead to severe mental health issues like anxiety, depression, attention deficit disorder, and in many cases, autism spectrum disorder, as well as weight gain, insomnia, and more violent behavior. People, especially our younger generation, are becoming addicted to VR, such as video gaming, video playing, online communication, social media, and many more things, even though they are moving away from real-life activities. They are forgetting to engage in real-life communication and make connections with their family, friends, relatives, and other people. They are spending most of their time online, which is really harmful to their

health as well as their sociability. Now, this is the time to raise awareness; otherwise, our next generation will be destroyed. We can take various steps. Firstly, when young people are using technology, parents should set a fixed time. Secondly, in urban areas, due to the lack of enough playgrounds, young people are passing their time using VR, playing virtual games. In that case, we have to ensure enough playgrounds in urban areas for playing various types of physical games like cricket, football, basketball, and so on. Sometimes, we can see that our parents are so strict with their children that they do not allow them to go outside the house. According to ISWSA.ORG (2019), individuals obsessed with video games, ignore their lives outside of the virtual world by spending between 20 and 40 hours each week (and some even more) in front of a console. This can be one of the reasons for getting addicted to VR. Every parent should allow their children to go outside to play. As a result, they can make real-life connections with their friends, relatives, and also their family.

Conclusion

In this fast-paced world, humans are evolving their way of living. However, with the excessive usage of technology, we have forgotten what reality truly is. Reality is often harsh, leading people to seek refuge in imaginary worlds, and VR has now become one of those mediums. Nevertheless, in the end, we must return to reality because, one day, we may feel disconnected from the real world within the virtual realm.

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