

Virtual Reality in The Enterprise: Business is Booming

Hank Aiken

Seventh Grade

Collierville Middle School

Shelby County

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Imagine a person being stranded on an exquisitely detailed island, surrounded by extinct birds and buzzing insects of all kinds. Trees stand taller than the empires that resided before and waves crash into the unknowing sand. Soon, they seem to wake up, but only realize that the entire experience was with an all new virtual reality headset. Not only could people explore unknown islands, but they could also train to use precise tools in delicate surgeries, fix oil rigs, or even digitally construct an entire building from scratch. These are only possibilities, and day by day scientists are researching the benefits and downfalls of exploiting this technology. Some largely profitable companies, such as Electronic Arts, are still not sold on the idea just yet. As the enthralling new media advances, virtual reality sets the guidelines for future gamers, surgeons, and ordinary citizens as a new age training tool and console, but advanced versions may be out of reach due to lack of technology and trust in the advancement itself.

Virtual reality and augmented reality systems have just now swept the public off of their feet, yet businesses are already preparing for the effects of such advances. Joseph D'Angelo, writer of the article 'How Virtual Reality Will Impact Businesses in The Next Five Years' states, "Virtual reality offers a practical way to convey knowledge and its immersive nature caters to the workforce" (1). With this, professionals in STEM related fields can communicate, discover, and explain with the various available programs. A scientist also states prototyping will go to the next extreme level with new advancements. For example, Ford Motor company has used virtual reality to produce, manufacture, and sell their vehicles. In the last seven years, the 111 year old Ford company has made virtual reality central to its development. Another vehicle business, Jaguar, has partnered with IBM in 2014 to allow customers to customize their vehicle, make modifications, and even have a 360° view of the interior. Based on findings, these advancements

allowed a large incline in sales due to the hype of virtual reality and the immersive experience customers receive from Jaguar that allows them to actually look into their vehicle. Deloitte Global conducted extensive research on sales in several enterprises and has reported the following: “Deloitte Global predicts that virtual reality (VR) will have its first billion dollar year in 2016, with about \$700 million in hardware sales, and the remainder from content. VR is likely to have multiple applications, both consumer and enterprise, in the longer term, but in 2016 the vast majority of commercial activity will focus on video games. Deloitte estimates sales of about 2.5 million VR headsets and 10 million game copies sold in 2016” (3). While largely accessible for marketing and business standpoints, virtual reality can provide beneficial experiences that can be used to play games, which is a bad thing for Ford and Jaguars customers who were expecting a more entertaining experience. However, the medium can be utilized for training tools is stressful, confusing environments.

Some professionals, such as people who work on oil extraction sites, require rigorous training from their employers due to high fatality rates, but virtual reality may be the next solution. With unique simulations right at their fingertips, the oil industry is now maximizing the capabilities of the simulated exposure. Louisiana Immersive Technologies Enterprise (LITE) is helping these workers get experience that they could not get anywhere on land. “When you have workers who have never been on an offshore platform,” said Skyra Rideaux, a spokesperson for LITE, “they don't know what to expect” (2). Having such inexperienced workers comes at a gargantuan disadvantage. At about eight times higher than all other United States industries, oil and natural gas extraction have the highest fatality rate. According to the Bureau of Labor Statistics, there were about three deaths per one hundred thousand workers in 2013. Such programs resemble first-person video games like Call Of Duty, says one of the developers (2).

While interesting, each program costs about sixty thousand to eighty thousand dollars to make, and these programs still need more advanced technology.

When experiencing virtual reality, controllers can be distracting and annoying, resulting in consumers begging for more immersive technology. “Eyefluence is building eye-tracking technology that it believes will be good enough to let you do anything in virtual reality,” states Rachel Mets, author of ‘The Step Needed to Make Virtual Reality More Real’ (1). The technology will allow users to control various movements, browse applications, and navigate menus only with their eyes. The CEO Jim Marggraff states that the company has developed a flexible circuit that holds hardware, multiple illumination sources, and a camera to track the movements of the eyes (1). This tiny implementation can drastically improve the functionality of virtual reality in more active situations like running away from dangerous monsters or finding the right tool to fix a leaking pipe. The author personally states, “After a quick tutorial with a headset retrofitted with Eyefluence’s technology, I had no trouble selecting different demo apps from the home screen” (1). While other companies are designing similar features, people still are not interested. According to Google’s research, “Younger adults are unsurprisingly more likely to have an interest in VR; 18 percent of 18- to 24-year-olds have tried a headset, and 46 percent of that age group expressed a desire to try. Only 14 percent of people over 65 years old said they wanted to experience virtual reality” (7). This, however, is one of the many problems that virtual reality faces, but still has possible solutions.

Intricate in itself, virtual reality still faces many issues. According to the research company Gartner, “Less than one percent of the 1.43 billion computers in the world have graphical capabilities needed for VR” (13). While companies are solving this by implementing cheaper components with more effective results, faster computers are something the average

person just does not have. Price is still a problem, says Kayla Matthews, author of 'Virtual Reality Still Has 5 Big Problems to Overcome'. Take the brand new Oculus Rift for example: such packages start out at the hefty price of fifteen hundred dollars and top level devices can cost up to three grand. Cost could also contribute to medical bills as well. Matthews states, "The VR experience can make someone feel off, whether it's a headache, queasiness, blurred vision, or a combination of all three" (2). Truly, the long term effects are still unknown, though side effects are only temporary. Virtual reality manufacturers are aware of this, too, and are still working on a plausible solution, opening even more gateways to the future of virtual reality.

In the future, billions of people could have access to extensive virtual reality products without the heavy cost. According to Mark Zuckerberg, CEO of Facebook, "Immersive, augmented reality will become a part of daily life for billions of people" (2). The Oculus VR founder Palmer Luckey also agrees with mark and that, "in five or six years, most computers will be capable of running a good virtual experience" (1). With the rise in this industry, there will be a surge of the need for STEM related jobs and positions such as electrical engineers, designers, programmers, and much, much more. Now, websites such as Facebook and Google are introducing three hundred and sixty degree video as well as VR options, allowing a more confusing technology to enter mainstream media.

In conclusion, Virtual Reality is a brand new experience to casual citizens, gamers, and even highly skilled professionals that introduces various advanced technologies that some are still worrisome about. Additionally, this uprising of Virtual reality allows people to experience things first hand in simulations. Though some are worried, the new media may enthrall millions each year, allowing the expansive growth of STEM jobs and workplaces for future minds. These minds may discover wonderful experiences that seem to be in another world, which is only a

couple of years away. The virtual reality industry is now booming, and it is only a matter of time before everyone is a part of the explosion.

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