



# Virtual Reality Gaming in the Marketing Business

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## Introduction

Virtual Reality (VR) headsets are the most popular way to play games on or offline. Companies such as Oculus PlayStation or HTC can achieve major ratings and sales. VR show high demands in the business. Sales of the Oculus Rift are just as high as PlayStation VR, for they have sold 1 million units since 2018, and Sony selling at least 2 million compared to Oculus. HTC Vive would just be a 5th popular brand with sales of more than 555,000 units. The new wave of VR development promises to make the technology mainstream and more enhanced. This makes for an amazing new kind of gaming experience or digital platform for consumer marketing. But the current impacts on virtual reality marketing is not understood. VR development is dependent on processor, RAM, connectivity, and special operating system. Using those will provide a successful game in the VR/AR system. In this study, VR is reviewed to explore potential strategies for gaming.

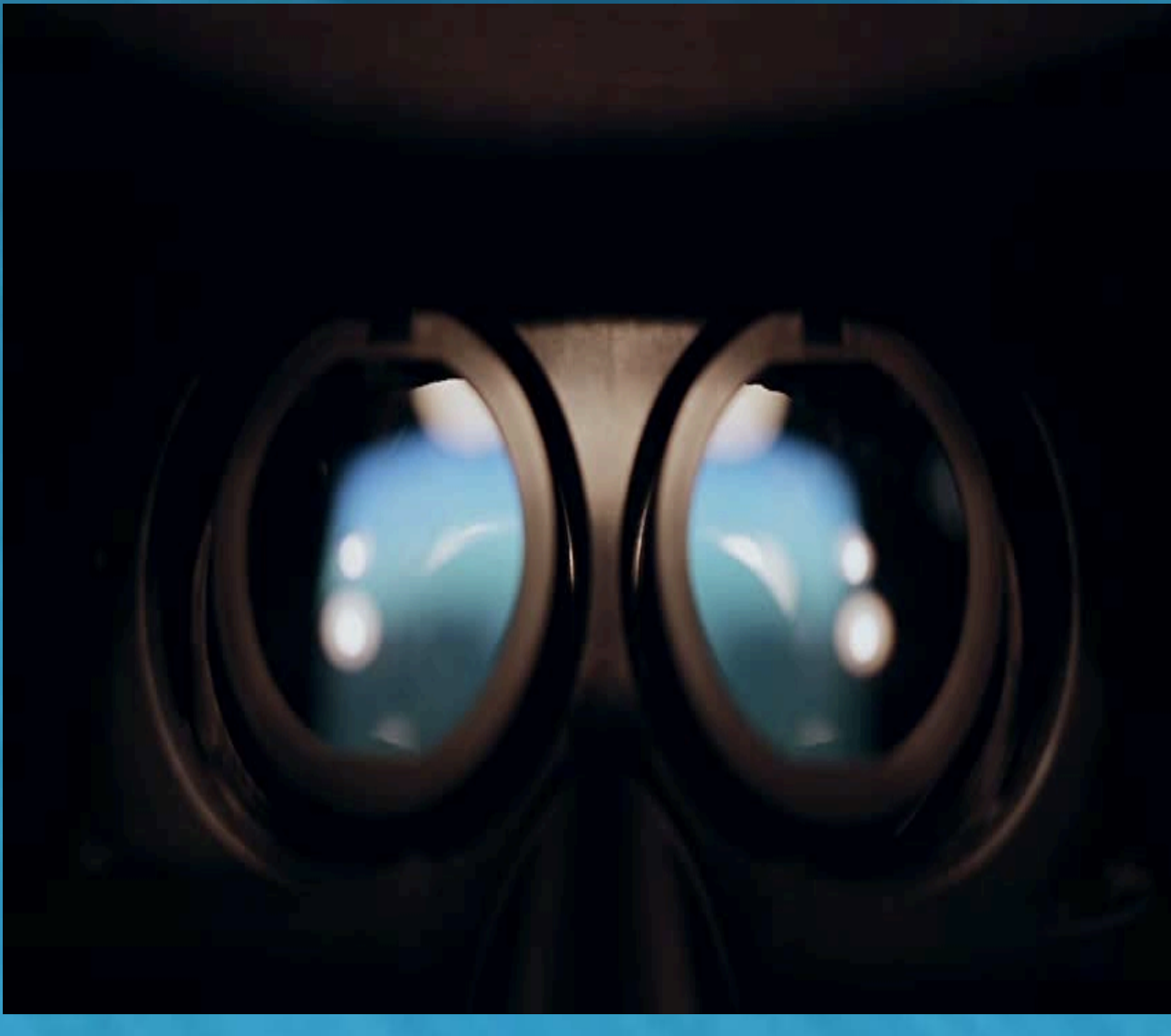


## Objectives and Hypothesis

- Objective 1: To study VR technology for gaming
- Objective 2: To develop a VR prototype for a simple game
- Hypothesis 1: VR improves the game in a substantial way
- Hypothesis 2: It is possible to incorporate game framework in VR prototype

## Background

(Leighton Evans): It is important to understand the way that presence and embodiment has to be shown within.  
 (Daniele Ferdani): the sector of technologies applied to cultural heritage has begun to envisage, in this domain, new possibilities for the dissemination of heritage and the study of the past through edutainment models."  
 (Yue Li): VR environments can be able to enhance the world of communication by providing an experience of the past that is acceptable for younger people, and be able to shape their minds with the virtual experience.  
 (Alvin J. Munsamy): People are tested before and after VR exposure to see whether or not virtual reality can be a vergence or accommodative facility. The results show that both facilities have increased by 25 minutes of VR gaming.  
 (Travis Smith): VR is mostly combining the field of technology with the environment of nature. Only to give consumers a chance to see their own surroundings the way they want to in life.  
 (Song Chen): VR includes a way to use controllers on the screen by using a computing device with a camera and display screen. With those resources the gaming app can alter the image to produce.



Most games seek innovation in the gaming community. Both Oculus and Sony can be able to develop their games with special methods to make them popular and more attractive to gamers. The role for VR is to show gamers appealing virtual objects, and offer an ability to take players into the game with cutting edge capabilities in the game in real time and enrich the gaming environment

## Methods

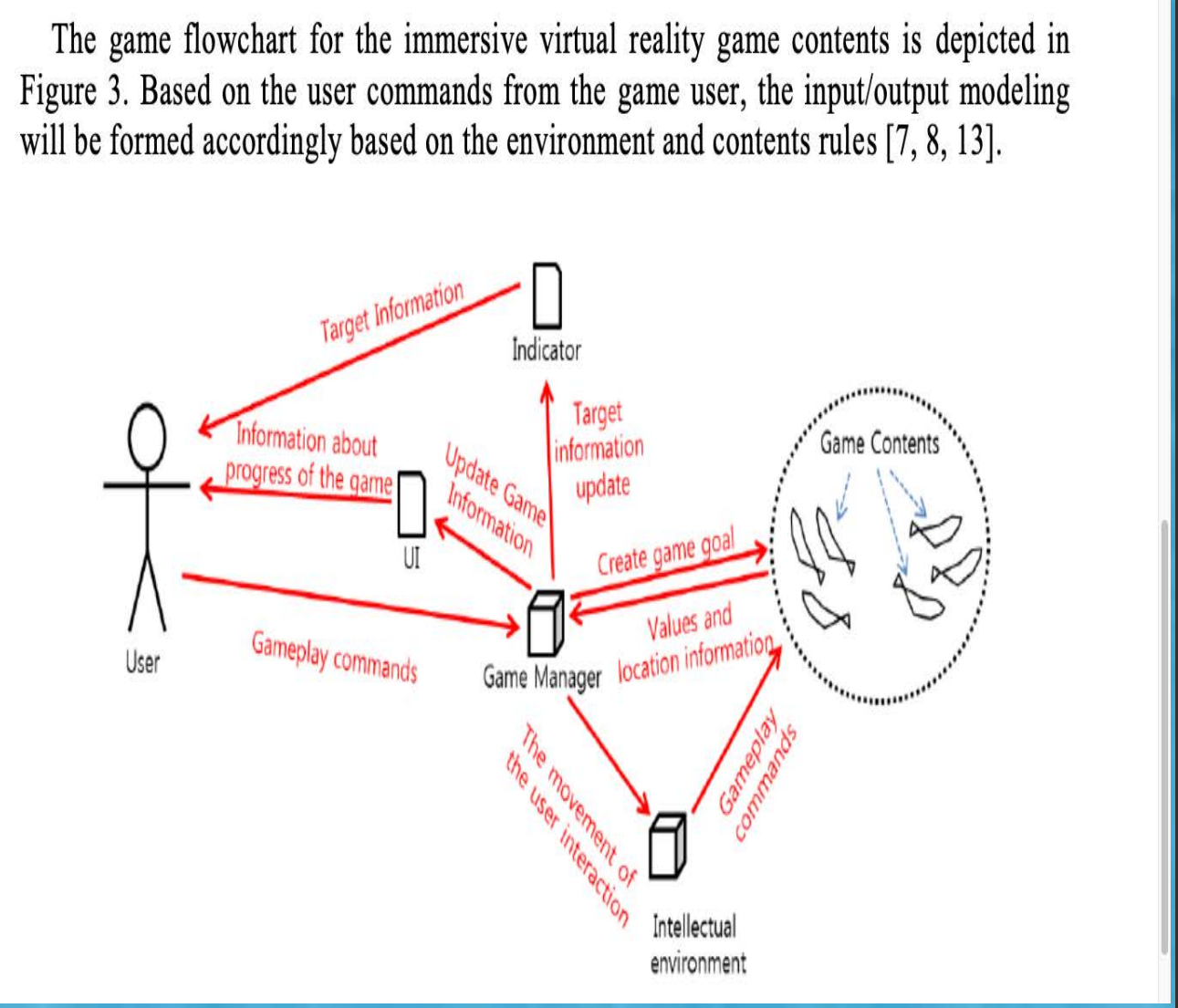
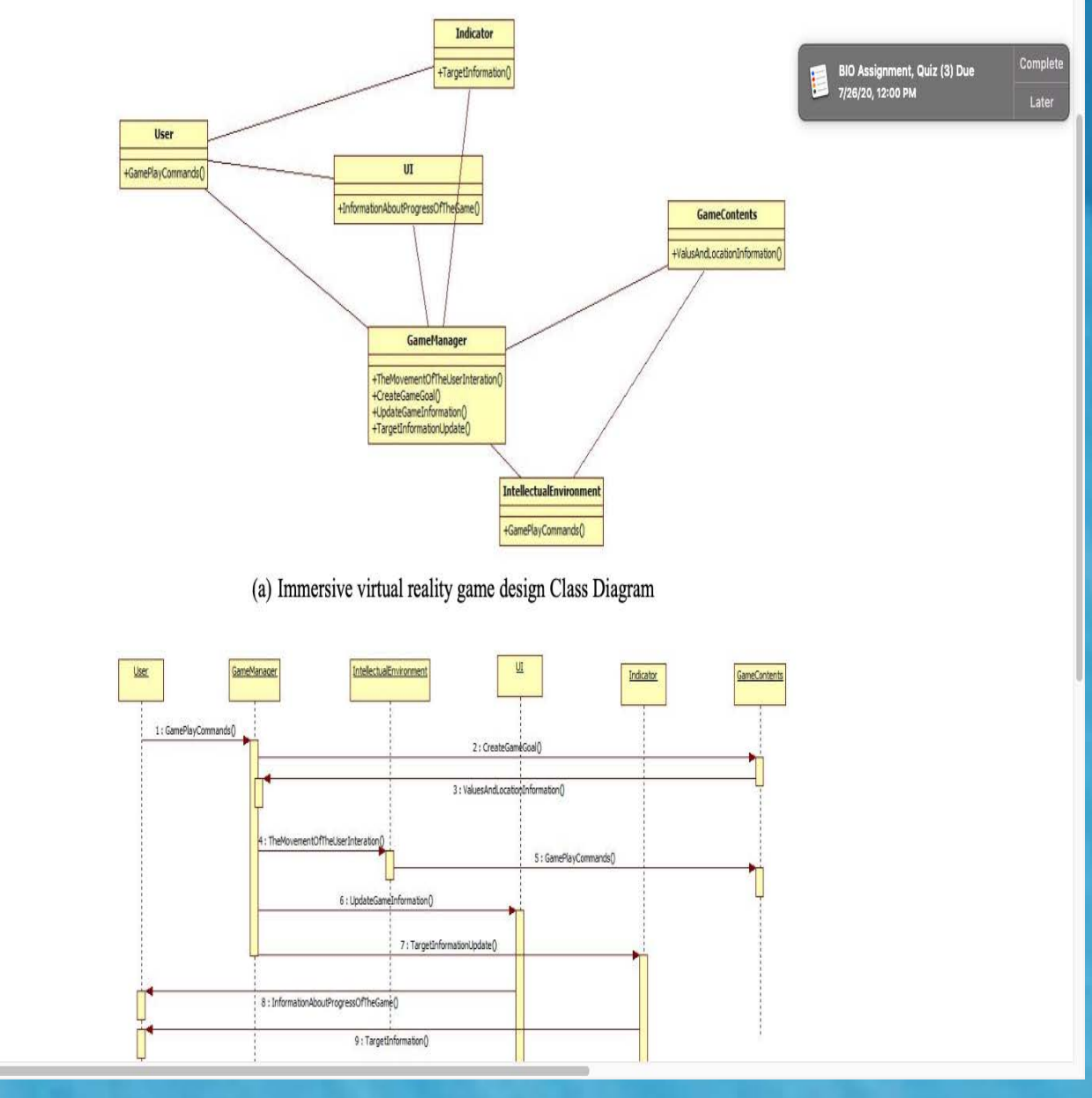


Figure 2. Immersive Virtual Reality Flow Chart



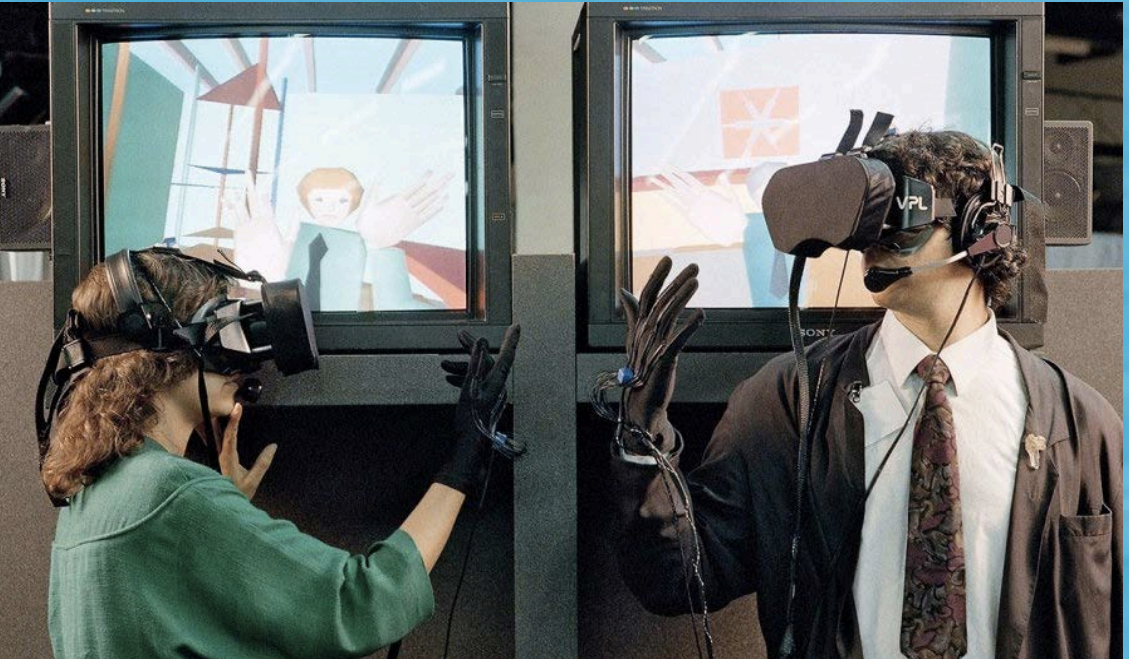
## Results and Discussion



VR Gameplay	VR Cutscene
I created a plotline where there's a swordsman running towards a castle to fight off someone.	I made a cutscene where the hero meets this girl in an oasis where there's also meant to be a PVP area.
The way on how it is made is by simply adding some graphic design to make it look real	This Cutscene uses special CGI to make it realistic although a bit more fictional.
The main function of the game I've created is to play as a variety of classes and explore the world, fight enemies and discover hidden treasure throughout the game.	The Purpose of the Cutscene is to show how the game is explained in certain circumstances, when you get the feel of it you can understand what to go through.

**Sensorama**  
 The Revolutionary Motion Picture System that Takes you into another world!  
 • 3-D  
 • WIDE VISION  
 • REALISM  
 • COLOR  
 • STEREO SOUND  
 • AROMAS  
 • VIBES  
 • VIBRATIONS

In 1956, Cinematographer Morton Heilig created Sensorama, the first VR machine (patented in 1962). It was a large booth that could fit up to four people at a time. It combined multiple technologies to stimulate all of the senses: there was a combined full colour 3D video, audio, vibrations, smell and atmospheric effects, such as wind



Jaron Lanier and Thomas Zimmerman founded VPL Research, Inc. This company is known as the first company to sell VR goggles and gloves. They developed a range of VR equipment, such as the DataGlove, EyePhone HMD and the Audio Sphere.



Nintendo launched the Virtual Boy console which played 3D monochrome video games. It was the first portable console to display 3D graphics. But it was a commercial failure due to: the lack of color graphics, lack of software support and it wasn't comfortable to use. One year later it was discontinued.



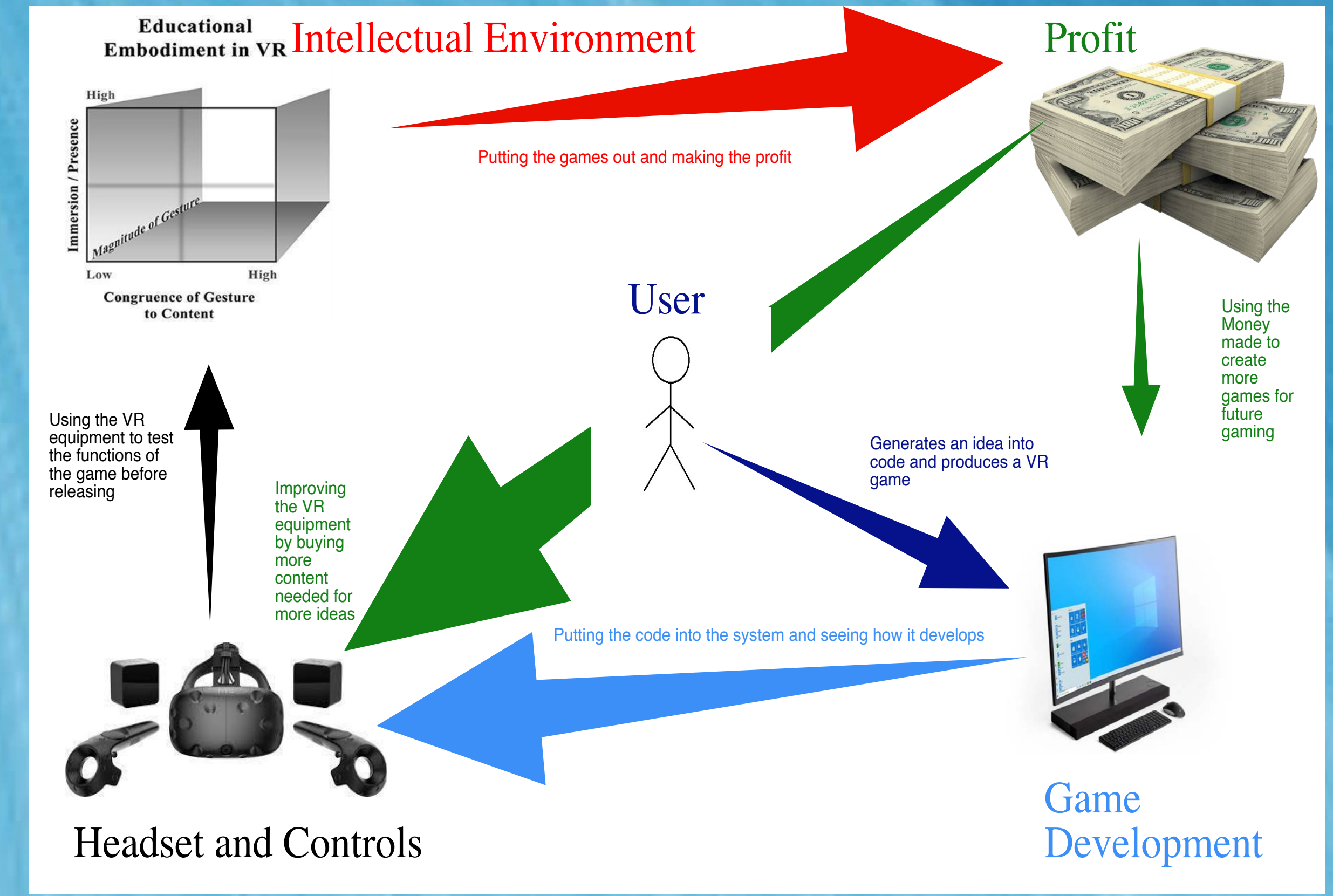
Google introduced a stereoscopic 3D mode for Street View. Palmer Luckey, 18 year old entrepreneur, created the first prototype of the Oculus Rift headset. It featured a 90-degree field of vision, which had never been seen before, and relied on a computer's processing power to deliver the images. This new development refreshed the interest in VR.



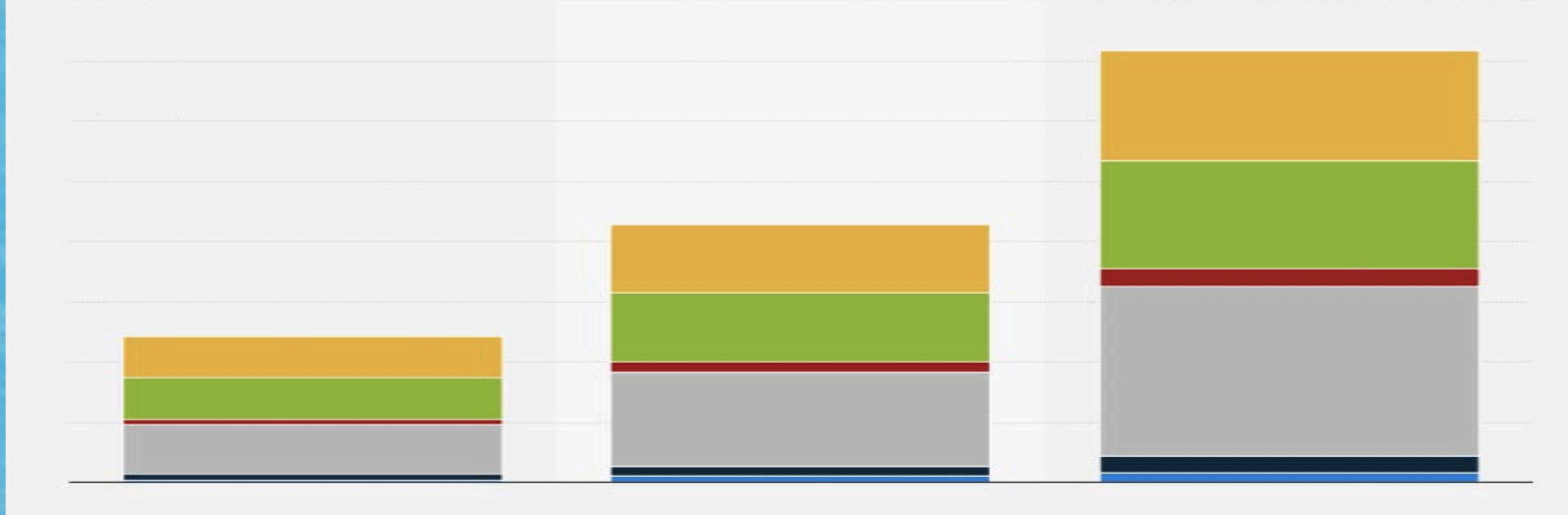
Facebook bought the Oculus VR company for \$2 billion. This was a defining moment in VR's history because VR gained momentum rapidly after this. Sony announced that they were working on Project Morpheus, a VR headset for the PlayStation 4 (PS4). Google released the Cardboard - a low-cost and do-it-yourself stereoscopic viewer for smartphones. Samsung announced the Samsung Gear VR, a headset that uses a Samsung Galaxy smartphone as a viewer.



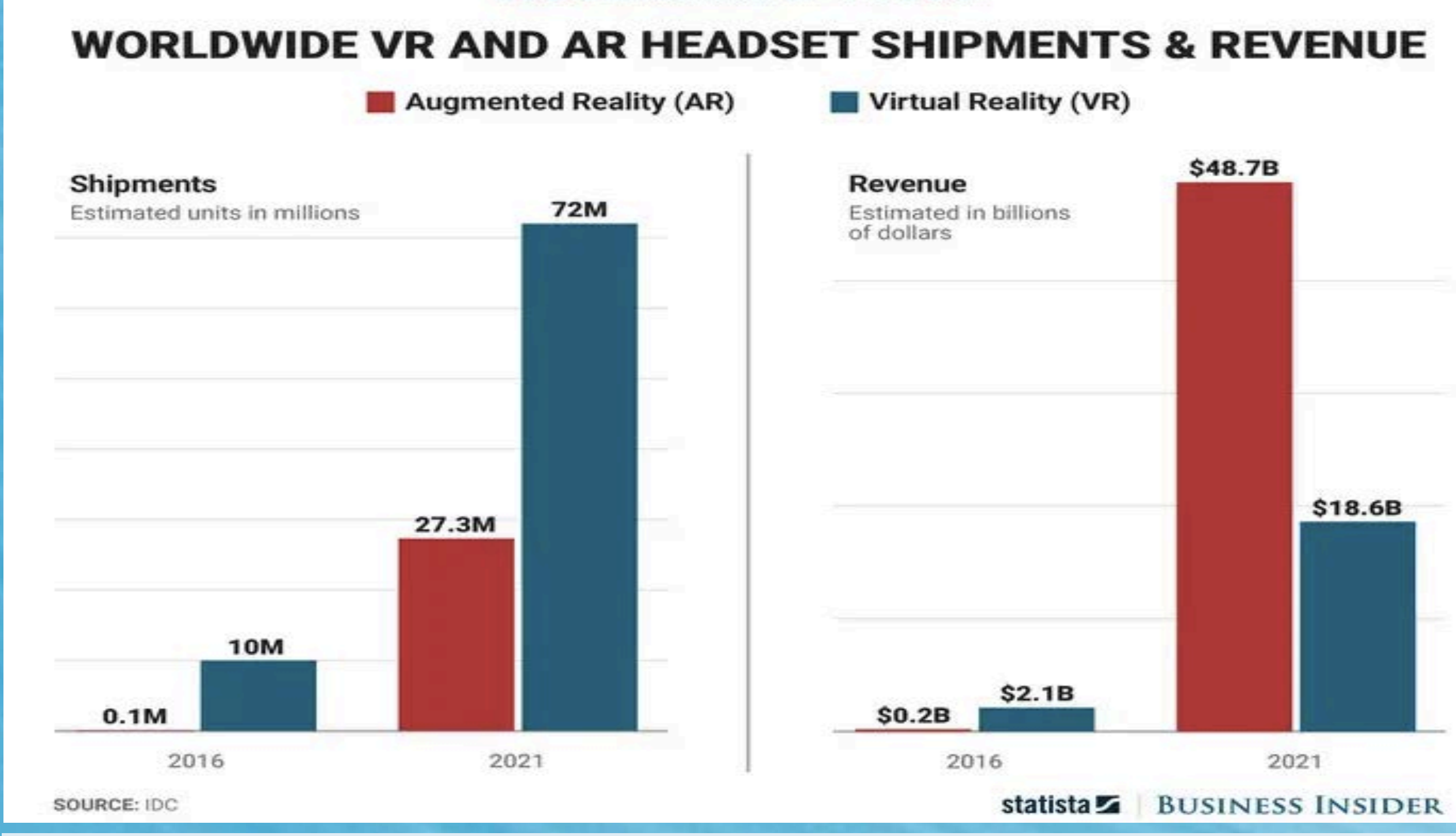
The Future is uncertain for what kind of technology will be made for the next generation, but it will sure to be advanced



The process of VR game development and revenue generation for further development and upgrade of the technology.



Bar graph showing the sales in different Virtual Reality headsets worldwide.



Virtual Reality Sales 2016 to 2017 in millions		Virtual Reality Sales 2017 to 2018 in millions	
Oculus Rift (Blue)	0.25	Oculus Rift (Blue)	0.85
Google Cardboard (Green)	5.1	Google Cardboard (Green)	3.4
Google Daydream View (Red)	0.1	Google Daydream View (Red)	2.25
Samsung Gear (Yellow)	4.55	Samsung Gear (Yellow)	3.65
Sony PlayStation VR (Gray)	0.8	Sony PlayStation VR (Gray)	2.55
HTC Vive (Black)	0.43	HTC Vive (Black)	0.95

## Conclusions

From the day that VR was first built to this day, it is a popular accessory for gaming experience. By providing for entertainment and a virtual environment for users to enjoy, VR is a major experience for those who would love to create, play, or view a simulated experience. Therefore Virtual Reality is one of the most successful parts of Video Game Development that needs further development and research.

## Acknowledgements

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