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Virtual Reality Next-gen Gaming Experience

Omkar Ramchandra Deshmukh

Department of MCA, ASM's IMCOST College Mumbai University, Maharashtra India

Abstract: *Today world Video games became one of the most important forms of entertainment in the twentieth century. In the 21st century, the effect was greatly improved. With the advance of mobile phones and laptops, the gaming industry changed dramatically in these new market platforms. In twentieth century video games are most important form of entertainment. The mobile phone and laptop an console the gaming.*

Industry are increase an there new market platform are taking shapes. Virtual Reality (VR) last few Year are increase there growth rapidly increase. The famous company are like itech art, oculus and Htc are rapidly are growth.in the gaming industry, VR has had a important role played an impact and will continue to do so for decades to come in reality. Nowadays, people, especially the younger generation, are spending more time playing VR-enabled games than ever before. Therefore, it is becoming increasingly important to be aware of the impact on the industry and consumers.

Keyword: *Virtual Reality, VR gaming, AR*

I. INTRODUCTION

Virtual reality gaming is a new generation computer video gaming is a three-dimensional of a artifice environment experience video gaming. It is a first-person perspective to a Player experience. VR given experience people for gamer and people with sensor, headset and controller that they are present there and work the task in Virtual world.

II. VIRTUAL REALITY

The technology of the Virtual reality are connect with laptop console and T.v. for gamer to improve Skills and enjoy games. It provided famous companies VR are a Oculus VR and Samsung an iTechArt and many more companies. recently playstation new launch ps5 and xbox launch xbox one x are Attract the console lover and next-gen gaming experience. The range of virtual reality in the gaming industry has continued to expand in recent years. The advent of Oculus VR and Samsung gear VR hardware ushered in a new era of virtual reality gaming. HTC also released the Vive with improved controls in 2015, and by the end of that year, the game's VR grossed over \$4 billion. Since then, there are about 230 VR development companies that produce various VR software and hardware. VR game market revenue has already reached more than \$15 billion in 2019. These companies are estimated to generate revenues from about \$3.5 billion in 2016 to about \$23 billion in 2020. These statistics show how fast the market is moving in VR gaming revenue. Thus, we can observe a growing role for virtual reality in the gaming industry.

III. AUGMENTED REALITY

AR combines the real and virtual worlds and complements the real world in real time with computer-generated virtual objects. According to one of the most widely used definitions, AR has three main requirements: the combination of real and virtual objects in the real environment, the coordination of real and virtual objects with each other, and the real-time interaction. It is a technology that we have. You can combine real and virtual element-like potential classifications. The continuum moves from a completely realistic environment to a completely virtual environment.



IV. MATERIALS

DG2: Defense Grid 2 and Defense Grid 2:

Enhanced VR Edition

Defense Grid 2 is a tower defense strategy game developed by Hidden Path Entertainment. Players view the game from a top-down perspective while acting as an army commander defending the base from alien waves. Over time, players acquire resources by killing aliens. The resources will be used to build a tower that shoots aliens as they approach the base. There are different types of turrets, such as cannons and laser turrets, each with different strengths and weaknesses. In addition, there are various aliens. Some are very slow and difficult to kill, others are weak and fast. You can upgrade your tower to increase its strength and customize the path of your aliens. For example, at one level it gives players the opportunity to place towers to divert aliens, and at another level it gives players space to build towers that determine the diversions of aliens.

Participants played the game on a 24-inch computer monitor and a consumer version of the Oculus Rift VR headset. The Oculus Rift is a VR headset with features such as 3D, position tracking, accelerometer, and gyroscope (Nield, 2016). Oculus Rift provides high graphic fidelity to create more attractive virtual environments. Players can use their head movements to look around and immerse themselves in a virtual world. DG2: Defense Grid 2 was a monitor-played game, and Defense Grid 2: Enhanced VR Edition was a version played on Oculus Rift.

Defense Grid 2 was chosen as the game for this study because the game has a VR version and a non-VR version.

The game version of is almost the same, except for minor changes to the VR edition UI. For example, in the VR edition, the tower build menu was displayed as a grid with icons for each tower type above the selected tower location. In the monitor version, a turret construction menu with details on turret attack damage, range, and rate of fire was displayed on the left side of the screen. The similarity between the two versions was the reason for choosing it as a game. This is because some games in the VR version only switch to motion control or don't have enough similarity to compare. I played both versions of the game using my Xbox one controller.

V. PROCEDURE

Those student are participants contest providing consent form for video game Defense Grid 2 using oculus Rift or desktop computer. The first portion completed the game player are guess desktop computer they continued to play second defense grid 2 completed the game again oculus Rift. The within design an experiment was chosen to provide a comparison between two version of the game. The participant would continue play instead of restarting from the starting point game that make them easier and boring also and affect satisfaction also but complete game. Taken 2 hour rest for game and student then after played that game. The game exciting Add new mission more and increase weapons and student made satisfaction and enjoy game.

VI. RESULT

The Participants student are enjoy and interested gaming are refresh there mind and Focus on there work and those student love gaming they starting gaming career after completed study the gaming not only entertainment but career also use the student. The game are addiction also that why after 2 hour focus on other important task of life.

VII. CONCLUSION

VR is future gaming that more than mobile laptop and other there are about 230 VR development companies that produce various VR software and hardware. VR game market revenue has already reached more than \$15 billion in 2019. These companies are estimated to generate revenues from about \$3.5 billion in 2016 to about \$23 billion in 2020. These statistics show how fast the market is moving in VR gaming revenue. Thus, we can observe a growing role for virtual reality in the gaming industry. The famous company are like itech art, oculus and Htc are rapidly are growth. the gaming industry, VR has had a important role played an impact and will continue to do so for decades to come in reality. People are more spending time in game and enjoy game learning about video. That impact vr industry and Customer about new technology a gaming different ways for revolution.

REFERENCES

- [1] International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Mr. Ninad Janardan Dani Volume: 06 Issue: 12 | Dec 2019
- [2] The Impact of an Augmented Reality Application on Learning Motivation of Student Tasneem Khan,1 Kevin Johnston,1 and Jacques Ophoff Volume 2019 |3 Feb 2019
- [3] Gaming on the Rift: How Virtual Reality Affects Game User Satisfaction William J. Shelstad, Dustin C. Smith, Barbara S. Chaparro Proceedings of the Human Factors and Ergonomics Society 2017 Annual Meeting Sept 2017



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