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Gaming Technology

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Abstract
In this article we have discussed the use of gaming technologies in various fields. Gaming technology is now used in healthcare, urban development, Gaming technologies also helps us to overcome trauma and helps us in maintaining mental simulation. VR technology is used which gives live experience and it for health which gives us easy and happy way to perform exercises for development and maintaining health.
Keywords: *Gaming Technologies, Virtual Reality,*

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I. INTRODUCTION

This article profiles 10 game-changing enterprise systems, medical and assistive devices, and commercial and consumer technologies with crossover applications in healthcare. Some are already on the market, while others are in the pipeline. Taken together, these up-and-coming technologies share common themes
They address top priorities in healthcare, including cyber security, smart use of data, cost savings, infectious disease prevention, clinical effectiveness, and improved patient care, outcomes, and satisfaction.

Through the help of gaming technologies, it helps us to overcome the trauma of injuries
In recent days. Gaming Technologies are now a days can be used as a way of engaging the patient towards video games which help them drag their attention from the disease and help recover it.
It is considered as a therapy for mental simulation.

Virtual Reality (VR) gaming system is developed integrating electromyography (EMG) signals and integrating motion capture.
By means of a didactic game, it is possible to realize with success everything the leading functions of training: educational, bringing up and developing.

Nowadays Gaming Technologies are also used for Urban Development projects.
Using simulation software, we can modify and create our projects according to diverseness of cities. Simulations are used to cope with the vast complexity of a city or even small district, it also focuses on distinct spatial and functional subsystems.

As we all have seen gaming Technologies have been evolved from the last few years, earlier we used to play games on the basic mobile phones in which we used to press keys to move a certain object in game. But eventually we seen, now there are many such types of gaming
Such as:
Mobile Games:

Mobile games are games designed for mobile devices, such as smartphones, feature phones, pocket PCs, personal digital assistants (PDA), tablet PCs and portable media players. Mobile games range from basic (like Snake on older Nokia phones) to sophisticated (3D and augmented reality games)
Virtual Reality (VR)
Virtual Reality (VR) is a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings. This environment is perceived through a device known as a Virtual Reality headset or helmet.
Voice Controlled
A voice-controlled game allows you to command your character and interact with others through speech. Innovative gaming companies champion this idea with

The intention of making gaming more accessible for visually impaired and disabled people.
Motion Controlled
A motion gaming system, sometimes called a motion-controlled gaming system, is one that allows players to interact with the system through body movements. The Playstation system also uses facial recognition and head position tracking. The Kinect is a controller-free system with a depth camera and motion sensor
Augmented Reality
Augmented reality gaming (AR gaming) is the integration of game visual and audio content with the user's environment in real time. ... The game itself can be as simple as a game of virtual checkers played on a table surface. More advanced AR games may actually build an environment from user surroundings.

Along with these gaming technologies, the gaming experiences have also improved a lot as we see, earlier we just had game with low graphics and controls used to be quiet difficult but now-a-days we find high graphics like Ultra HD, HD, Ultra and also the controls are very much user friendly. Now due to the improvised Gaming Technologies people love to play games throughout the day.

II. LITERATURE SURVEY

Survey on Uses and Types of Gaming Technology
Gaming Technology is a new technology certainly helps build bigger and better games, but if there were no advances in technology for a while, publishers would continue to produce new products. Gaming technology are on the cusp of unlocking the true potential of the Internet for video games. Gaming technology has led to several interesting area-like medicines, chemistry, mental stimulation, urban development.

In the paper titled "Game-Changing Technologies: 10 Promising Innovations for Healthcare, Martha Vockley,[1]
This article profiles 10 game-changing enterprise systems, medical and assistive devices, and commercial and consumer technologies with crossover applications in healthcare. Some are already on the market, while others are in the pipeline. Taken together, these up-and-coming technologies share common themes
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Virtual reality gaming technology for mental stimulation and therapy.", Smys, S [2]
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USE OF GAMING TECHNOLOGY IN THE STUDY OF CHEMISTRY, Farid Dgamaletdinovich Yambyshev1 et al. [4]

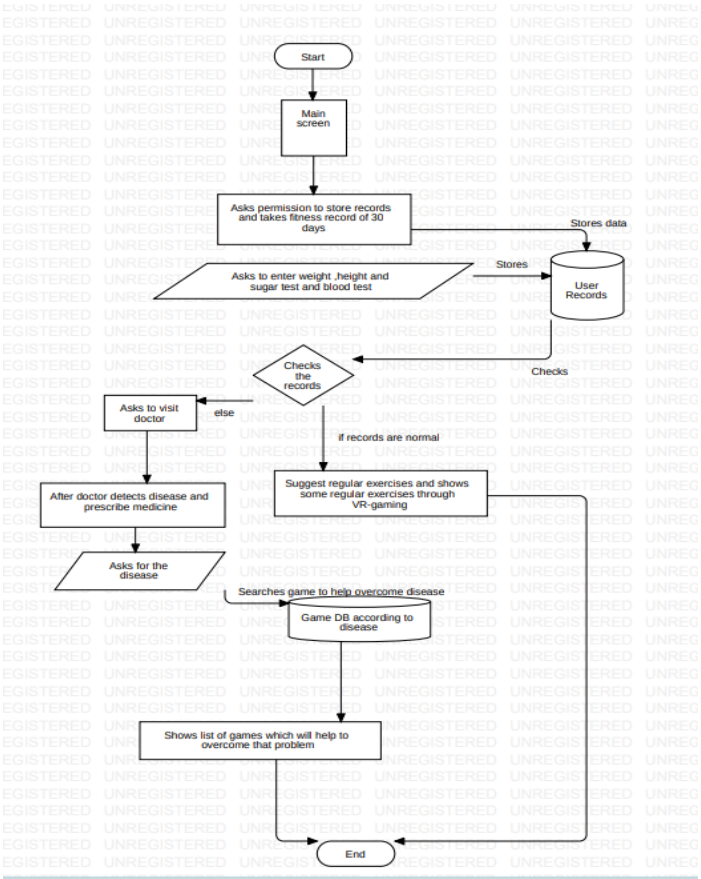
Virtual Reality (VR) gaming system is developed integrating electromyography (EMG) signals and integrating motion capture.
By means of a didactic game, it is possible to realize with success everything the leading functions of training: educational, bringing up and developing.

"Utilizing Gaming Technology for simulation of Urban Development", Max Juraschecka et al.[5]
Nowadays Gaming Technologies are also used for Urban Development projects.
Using simulation software, we can modify and create our projects according to diverseness of cities. Simulations are used to cope with the vast complexity of a city or even small district, it also focuses on distinct spatial and functional subsystems.

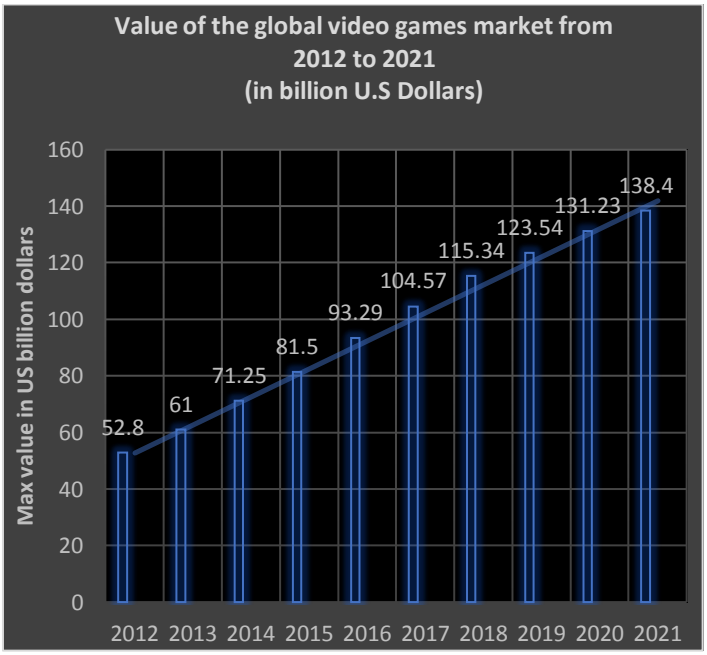
III. PROPOSED SYSTEM

As we saw a few games for scientific study, we hereby propose a system that can be used in healthcare industry which will help the user to overcome the ailment he/she is suffering from. The flow of the game is as follows: It asks the user to keep the game downloaded for certain period in the device, so the game can store the information which will evaluate user's health. After the completion of the time period, it collects some user details (like weight, height, sugar level, blood records, etc.). After making analysis on the given data, it displays the condition of the user whether he should visit doctor or is the user normal. If it suggests normal, then the game will suggest some VR games to help user to stay more fit and healthy. If the records are not appropriate the flow will indicate the user to visit the doctor. After doctor's guidance, the game asks for the medical ailment

and accordingly will provide a game to help user overcome the condition. The game will be available on all platforms so that it can be used in mobile and smart watches to keep track on records and then the same will be connected to VR-technology to get gaming experience for preventing the condition. Here is the implementation of the same in the flowchart manner:



IV. BACKGROUND



The above image illustrates the background of Gaming Technologies.

The entire evolution of gaming from scratch to High Definition Graphics. The evolution of Gaming has played a major role in developing interest among the users. Although the background is the key behind this evolution. The history of video games began in the decade of 1950 to 1960 as computer scientists began designing simple games and simulations on mainframe computers, with MIT's Space war! in 1962 as one of the first such games to be played with a video display. In earlier 70s we got first video game hardware.

In the era of 80s we got further development in console games. In this era we used to get a large amount of low quality console games. Later we got improvisation in the quality and standardization in personal computers.

In the earlier 90s we got two major shifts in technology which led to introduction of optical media to perform real time 3D rendering which made a rise in development of graphics card. Later internet also gained a widespread which led to development of online games.

The 2000s the industry switched to mobile games which made a rise in demand of mobile phones, smartphones, tablets. This gave boost in gaming technologies with enhanced gaming kits. Later VR technology was introduced in the gaming industry which gave best gaming experience due to which a great demand in the market. This technology helped to get experience of gaming in real time scenario.

V. APPLICATIONS

Gaming Technologies are used on a large scale for entertainment purposes and due to its evolution and craze of millions, Gaming is also considered to be a carrier. Apart from entertainment, gaming technologies is now a days used for other useful purposes such as urban development, healthcare, treatment of sclerosis, use of VR gaming technology for training purposes.

VI. CONCLUSION

In this paper we therefore propose you a system that helps in the healthcare and e-health sector. This article also illustrates the usage of gaming technology in different fields. In the future, we expect gaming technologies to be a boon in the development of the country and also we expects the gaming technologies to evolve in such a way that its user interface becomes so user friendly that everyone could use it efficiently with ease.

REFERENCES

[1]. Martha Vockley; Game-Changing Technologies: 10 Promising Innovations for Healthcare. *Biomed Instrum Technol* 1 March 2017;51(2):96–108. doi: https://doi.org/10.2345/0899-8205-51.2.96

[2]. Taylor M, Griffin M. The use of gaming technology for rehabilitation in people with multiple sclerosis. Multiple Sclerosis Journal. 2015;21(4):355-371. doi:10.1177/1352458514563593

[3]. Smys, S. "Virtual reality gaming technology for mental stimulation and therapy." Journal of Information Technology 1.01(2019):19-26. doi: https://doi.org/10.36548/jitdw.2019.1.003

[4]. Dgamaletdinovich Yambyshev, F., Lenarovna Derbisheva, D., & Vladimorovna Halaman, A. (2019). USE OF GAMING TECHNOLOGY IN THE STUDY OF CHEMISTRY. Humanities & Social Sciences Reviews, 7(6),954-961. doi: https://doi.org/10.18510/hssr.2019.76142

[5]. https://www.gamedesigning.org/gaming/advances-in-technology/

[6]. Max Juraschek, Christoph Herrmann, Sebastian Thiede," Utilizing Gaming Technology for Simulation of Urban Production", Procedia CIRP, Volume 61,2017, Pages469-474, ISSN2212-8271, doi: https://doi.org/10.1016/j.procir.2016.11.224.