Using Video Games as a Means to Help People's Mental Health

How have open world multiplayer games helped people suffering from depression and anxiety issues?

A Thesis Prospectus
In STS 4500
Presented to
The Faculty of the
School of Engineering and Applied Science
University of Virginia
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Science

By
Izzudeen Yahia

October 27, 2022

ADVISORS

Rider Foley, Department of Engineering and Society
Briana Morrison, Computer Science

Introduction

Depression and anxiety are common mental health conditions that can greatly impact an individual's quality of life. While traditional forms of therapy and medication can be effective in treating these conditions, there is growing evidence that certain types of video games can also provide therapeutic benefits. This introduction will explore the potential benefits of using video games to address depression and anxiety, as well as the challenges that may arise in the development and implementation of such games. The creation of video games that specifically target depression and anxiety has the potential to provide a new and engaging way to address these mental health conditions. These games could offer an interactive and engaging way to learn coping skills, provide an opportunity for social connection and support, and offer a sense of accomplishment and progress. However, the development and implementation of such games also presents challenges, such as the need for effective game design and mechanics, the consideration of ethical and privacy concerns, and the need for evidence-based approaches to ensure the effectiveness of the games. This introduction will explore these potential benefits and challenges of creating video games to address depression and anxiety.

The technical part of the paper will focus on how video games are able to help better people suffering from different mental health issues like depression and anxiety. The second part of the paper will focus on the development of these games and how the innovation that goes into making games more accommodating for people with mental health issues. It will also focus on how the growth in society has changed the way companies have to think about audiences and who they should promote their game too. The paper aims to focus on how current video games

are already able to help people with their mental health and how to take features of this to develop future games that improve on it are able to reach a greater audience.

Technical Topic

Video Games are a technology that was first developed in the 20th century and have continued on to the 21st century and have grown even bigger. Video Games allow users to engulf themselves in a world that is not real. The main objective of almost all games is to provide the player with a good experience. The main way games accomplish this is by having reachable goals in the game(Hamilton,2021). One of the biggest benefits video games have on one's mental health is that it provides "mental stimulation" and provides people something else to think about(Bhargava, 2021).

Games today are able to reach a wide variety of audiences and are able to help people with problems they face. One example being loneliness and video games such as Minecraft and other multiplayer games are able to help people who suffer from anxiety from meeting others in real life and feel lonely(Sweet, 2021). Some games focus more on how the user feels from the audio and the visuals so a pleasant sounding and looking game can help boost people's morals such as *A Short Hike*. The game is very vibrant and has a soothing soundtrack. The gameplay is a very simple adventure story(Cunningham, 2020). Games like this provide a relaxing experience to the player and can help people going through a tough time or feeling depressed. Features such as providing light and colorful graphics are a great way to relax one's mind and to destress someone who is pressured from society and is suffering from some sort of anxiety. Multiplayer was a huge addition to video games and can be seen as helpful to anxiety or harmful as it has helped people interact with each other even when they are not able to interact in the real world

and make them not feel lonely. However people have taken it for granted and have used it as their means of interacting with others and have increased their anxiety when needing to something in person.

This relates to the social problem as the way video games are designed is key to which users get them. Especially if games are meant to be a beneficial for peoples mental health and the people who need it are not informed about. One quick example being Minecraft it is promoted as an adventure game but from a different lens it is one of the best way to teach young kids how to interact with others. However this is not shown to because of the way it is promoted and the connotation that comes along with video games being a waste of time.

Video games as a Solution

In Thomas P. Hughes paper *The Evolution of Large Technological Systems* he writes on the relationship between technology and society. He comes up with two models for how technology and society interact with each other. The first one being technological determinism which is that society is molded by technology and the other model being social determinism which is that society controls which technologies are developed. Hughes mentions phases for the evolution of socio-technical systems they expand. One of the phases which Hughes discusses is Innovation. Innovation incorporates previously invented technologies with other factors that enable the technology to be brought out to a wider audience. Another phase which Hiughes discusses in his paper is Growth, which is related to innovation in the sense that they build upon already built technologies. The growth phase occurs as the infrastructure increases to balance out the different users that use the technology. Reverse salient is a term used in psychology and

neuroscience to describe a phenomenon in which a particular stimulus or feature in a visual scene is less noticeable or salient than its surrounding elements.

One reason for having innovation in the game field is that video games are an established technology. Games however are a major influence on someone's health. Video games that are designed to be intensive have a negative impact on many young adults mental health (Altintas,2019). Knowing this, game developers can design and develop more games that are less intensive and more relaxed to combat the mental health issues that these games cause. Innovation is already a big thing in the video game industry games like most other technologies are built upon the previous generation and game developers are working longer on the game taking the feedback from the users to remodel the way the next game is built this shows how the field is social determinism and that society helps shape what is released to the public.

One reason for having growth in the game field is that in the game field games really focus on being balanced. Games have an individuality about them that sells, however every game needs to be balanced to be a good game and to do this they need to improve and grow on what they previously did or the industry did. Analyzing the game developing through growth it can be seen the effects society has on games and what games are created in each time period and by analyzing the current society what games to be created for which groups of people(Ankiewicz ,2006). The games here are heavily influenced by the society and are made to reach different demographics that it would not reach and show how the game is social determinism as they mold to whichever demographic the developers are catering to.

Research question and methods

The question that I will explore is: How have open world multiplayer games helped people suffering from depression and anxiety issues? To answer this question different methods of data analysis will be used. One of them being surveying a group of individuals. In the survey it will question them about how much they play video games. This can gauge how much video games can affect them as people who play less will have different answers to people who play more. They will also be questioned on the type of games they play. Lastly They will be questioned on how they feel and react when they play the game. Another group of individuals to be surveyed is people suffering from mental health such as depression and anxiety. Question them on what triggers it. Question them on what they do to help them get through it. The last method of evidence collection is interviewing a game developer. By interviewing a game developer, the way game corporations research games and develop them can be understood. Another key piece of information that can be learned is how game developers build games to target certain audiences. Additionally, organizations and agencies that focus on mental health and video games, such as the International Association for the Study of Video Games and Mental Health, may also have data and information on this topic. These organizations can be contacted to request access to their data and resources.

Conclusion

Video games can be used as a way to help people suffering from certain mental health issues. Games today have shown to help people with mental health issues such as games that promote interaction with others which have shown to improve anxiety and depression. The opposite can be seen that games that are intensive can have a negative impact on someone's mental health. Following Thomas Hughes' idea on technological systems by innovating in the

video game field, game developers can find ways to include ways to promote this positive

thinking in their games. Game developers can also use games that are already well established

and have these features in them and promote them more for this reason to improve one's mental

health to help it grow and reach a wider audience.

References

Altintas, E., Karaca, Y., Hullaert, T. and Tassi, P., 2019. Sleep quality and video game playing:

Effect of intensity of video game playing and mental health. Psychiatry Research, 273,

pp.487-492.

Ankiewicz, P., De Swardt, E. and De Vries, M., 2006. Some Implications of the Philosophy of

Technology for Science, Technology and Society (STS) Studies. International Journal of

Technology and Design Education, 16(2), pp.117-141.

Bhargava, H. (2021, October 05). Hiding in plain sight: The impact of gaming on Mental Health.

Retrieved September 25, 2022, from

https://www.forbes.com/sites/hansabhargava/2021/10/04/hiding-in-plain-sight-the-impact

-of-gaming-on-mental-health/?sh=d29ac94278de

Brennan, D. (Ed.). (n.d.). Video games: Do they have mental health benefits? Retrieved

September 25, 2022, from

https://www.webmd.com/mental-health/mental-health-benefits-of-video-games

Cunningham, A. (2020, April 03). 19 video games to play when you need to relax. Retrieved

September 25, 2022, from

https://www.nytimes.com/wirecutter/blog/relaxing-video-games/

Hamilton, F. (2021, December 16). How video games can teach your brain to fight depression.

Retrieved September 25, 2022, from

https://paintedbrain.org/news/how-video-games-can-teach-your-brain-to-fight-depression

/

Sweet, J. (2021, July 05). Video games could hold untapped potential in treatment of mental

illness. Retrieved September 25, 2022, from

https://www.verywellmind.com/video-games-could-treat-mental-illness-study-shows-5190213