

## **Thesis Project Portfolio**

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

(Technical Report)

### **Investigation of Video Games and its Impact on Depression and Social Anxiety**

(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science

University of Virginia • Charlottesville, Virginia

In Fulfillment of the Requirements for the Degree

Bachelor of Science, School of Engineering

**Izzudeen Yahia**

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Department of Computer Science

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## **Sociotechnical Synthesis**

The reasoning for looking into video games and the correlation it has on mental health is a course here at UVA. Over the summer of 2022 a course called CS 4730: Computer Game Design was taught. The course discussed many aspects of a video game that got over looked when being played by a normal gamer. The course teaches why developers make certain choices when designing video games, such as the use of certain colors, sounds, and game mechanics. For example, game developers may use bright colors and upbeat music to create a positive, uplifting mood in their games, while using darker colors and tense music to do the opposite such as create a sense of danger or suspense.

The goal of the Capstone project was to create a video game that would help people suffering from mental health issues such as depression and social anxiety. The way this was done was by analyzing features in video games and see how they influence the user. After analyzing current games and the positive effects it has on mental health and the negative effects it has on mental health, it is time to apply that too a new game which is designed specifically to help with depression and social anxiety

The focus of the STS research was to analyze video games and the effects they have on mental health and to identify causes of depression and social anxiety in video games. This research will look into what causes video games to have a negative effect on ones mental health, such as addiction. The research will also look into things that do the opposite and what video games do to have a positive effect on mental health. By examining the relationship between video games and mental health from both positive and negative angles, the research can provide

insights into the ways in which video games can be designed to promote positive mental health outcomes and reduce the risk of negative ones.

The aim of this research is to find the issues in the video game industry today and to find the changes the industry needs to make, in particular in terms of mental health. This is important and relates to the field of Science, Technology and Society (STS) as the development of video games has an affect on the youth and can help shape and promote different views, and having video games that only hurt mental health will mold the future towards a downward trajectory. This research is of crucial as video games have become an increasingly popular form of entertainment among young people and understanding their impact on mental health is crucial in developing appropriate strategies and interventions to support healthy outcomes.

In summary, the research is focused on identifying the issues in the video game industry, especially in terms of mental health, and advocating for changes that will promote positive mental health outcomes for young people. The research recognizes the complex and diverse relationship between technology of video games and the community and highlights the importance of creating video games that have a positive impact on the future.