

**Sociotechnical Synthesis**

**STS 4600**

**Spring 2021**

Jacqueline Mazzeo

Systems and Information Engineering

Signed: \_\_\_\_\_ Date \_\_\_\_\_  
Jacqueline Mazzeo

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
Richard Jacques, Department of Engineering, and Society

## **Introduction**

My Technical Project, Developing a Criteria-Based Evaluation Tool for User Experience Design that Balances Standardization and Creativity, aligns with my STS Research Paper, The Impact of Persuasive Technology in Video Gaming on Users' Well-Being, because of the shared emphasis on user interface and user experience (UI/UX) design of gaming applications and platforms. My Technical Project involves the creation of a solution for combating design inconsistencies in creative environments. This solution served as an alternative to having a traditional design system, because it was found that a traditional design system would hinder artistic freedom with its rigid standardization guidelines. The proposed solution is a criteria-based evaluation scorecard tool that can be used in various stages of the design process, by various stakeholders. The scorecard tool promotes design guidelines, provides feedback to designers on the performance of a design element, while allowing for flexibility in design. This tool was shaped for a mobile gaming company, King Digital Entertainment, which served as the focused case study. Looking deeper into game-design, my STS Research paper is about the consequences of adopting persuasive technology tactics, personal and population data in the development of video game designs. My STS Research paper analyzes the design tactics used by game-makers to ensure prolonged playing time, customer loyalty, and player retention and engagement. These design tactics were found to affect users' well-being both physically and socially.

## **STS Research**

This STS Research paper discusses and identifies how persuasive technology in video gaming is growing into a more dangerous strain with the usage and collection of personal data. This paper investigates video game design tactics similarity, immersion, gratification, praise and feedback; then shows their impact on those who interface with this technology. This paper was accomplished using a combination of case-study investigations and survey of existing work. It was found that game designers benefit from adapting persuasive technology practices into their games, all at the cost of the social wellness and general well-being of their players.

## **Technical Project**

Due to the often-rigid requirements of traditional design systems on structure and uniformity, it was found that traditional design systems can discourage creativity and customization. To forge a balance, a criteria-based evaluation tool, or ‘scorecard’ was developed for assessing design components that incorporate principles of consistent, standardized practice, yet prioritize creative freedom. The evaluation scorecard was refined after meeting with expert designers bi-weekly and completing usability testing in a focus group format. It was found that the tool is easy to use, helpful, and can function in both independent and collaborative settings.

## **Conclusion**

The Technical Project forced the exploration of an alternate solution once the traditional solution of a design system was found to be incompatible with the case study in focus. Designing consistent and cohesive UI/UX interfaces is important because this is what makes a game appeal to users. By appealing to users, game-makers can expect to see an increase in playing time, customer loyalty, player retention and engagement. These goals are emphasized in the STS paper because the tactics and strategies game-designers implement are discussed. On one hand, the

significance of optimizing UI/UX design is crucial to game success. On the other hand, it can be said that some design tactics take advantage of players by creating games that are highly-addictive and thus, hinder players' social functioning.

### **Acknowledgements**

I would like to acknowledge the advice, support, and feedback of personnel at King Digital Entertainment, including Chris Grant and Carlos Lidon. I also acknowledge my technical advisor Professor Greg Gerling and my STS instructor Professor Richard Jacques for their guidance and support.