

Sociotechnical Synthesis


STS 4600

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My technical project is titled “Developing a Criteria-Based Evaluation Tool for User Experience Design that Balances Standardization and Creativity.” This project was completed with King Digital Entertainment. The main goal of this project was to create a tool that would increase consistency in design to enhance the user experience. My STS research paper focuses on the success of Nintendo and a video game, *Animal Crossing: New Horizons (ACNH)*, during the COVID-19 pandemic. The purpose of this paper is to explore how the COVID-19 pandemic increased the demand for the Nintendo Switch and made *ACNH* the most popular game in the world in 2020. As the technical project focused on the user interface designs of Candy Crush Saga, a famous mobile game from King Digital Entertainment, I wanted to make my STS research topic related to video games. Since *ACNH* was the biggest sensation last year and many people, including my friends, purchased the Nintendo Switch due to social distancing practices in these unprecedented times, I thought this would be a very interesting research topic.

The technical portion of my project produced a criteria-based evaluation tool in the form of a scorecard. The tool was designed to assess designs to promote consistency throughout interfaces while allowing for user flexibility. To get to this final product, the first step was to document design inconsistencies in Candy Crush Saga and research design systems. Afterward, two usability evaluation sessions were conducted. Four usability experts participated in the first session and thirteen domain-specific designers participated in the second session. Through numerous activities, the scorecard tool was applied in a manner to test its ease of use and usefulness. The tool was revised based on participant feedback. The project was presented at the 2021 IEEE Systems and Information Engineering Design Symposium.

My STS research allowed me to thoroughly comprehend the success and prosperity of the Nintendo Switch and *Animal Crossing: New Horizons*, particularly how they were able to fulfill

the needs and desires of society during the pandemic. I learned how Nintendo Co Ltd.'s profits increased by over 400% in its fiscal first quarter in 2020 and that more than 5.7 million Switch consoles were shipped in the quarter, up 166.6% year over year. The two main reasons why *ACNH* was so successful are that it fulfilled people's desire for interaction and served as a platform to escape the hardships of the real world while resembling real life. Additionally, I offered insight on related aspects, particularly on inflated prices of the Nintendo Switch due to demand, potentially implementing chat filters and moderation to mitigate harassment and improper behavior in-game, and incorporating subtle reminders to prevent gaming addiction.

Through my technical project, I was able to learn that there are so many different factors that have to be considered when making a design. In addition to how something looks, consistency of an element and cohesiveness with other elements are important. Balancing standardization and creativity is an intricate task, but designers need to work together to make the best product. My STS research paper increased my understanding of the world I live in, particularly the phenomenon of the Switch and *ACNH*'s popularity. I was able to learn various statistics and reasons for the game's success during the pandemic. There are many considerations in the gaming realm, such as technology satisfying societal needs and the conflict between the individual and society. Overall, I enjoyed researching and analyzing my STS topic.

I would like to acknowledge Professor Richard Jacques and Professor S. Travis Elliott for advising me on my STS paper, as I am grateful for their insight and support. I would also like to thank Professor Gregory Gerling for being my technical project advisor and leading it. I am thankful to Erin Hopkins, Jacqueline Mazzeo, Emma Peck, and Kelcie Satterthwaite for being great teammates and for all of their hard work. Finally, I would like to thank Carlos Lidón for his thoughtful ideas and assistance as our main point of contact with King Digital Entertainment.