Thesis Project Portfolio

Android App Development for Amazon Fire TV

(Technical Report)

Digital Dilemma: The Rise of Internet Addiction

(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

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Spring, 2024

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Table of Contents

Sociotechnical Synthesis

As the internet continues to grow in popularity and scope, internet addiction will become an increasingly alarming issue, especially amongst younger generations. As new and innovative products emerge that promise to improve our lives using technologies such artificial intelligence and virtual reality, we are also being exposed to the dangers of a reliance on internet use and coercive development techniques designed to elicit addictive behavior. Compulsive internet use has been shown to cause issues such as social anxiety, problems with sleep, low self esteem, and worsened school performance. As we continue to innovate, it is necessary that we critically analyze the impact of the internet on our mental health and quality of life, as well as how companies can create products that ensure the wellbeing of the consumer without sacrificing efficacy and profit.

My technical report was based on my experience during a software engineering internship at IMDb.com, in which I developed a feature for a media recommendation application. This application was designed to be a centralized entertainment hub for Amazon FireTV devices by incorporating personalized movie and television recommendations from all the different streaming services a user is subscribed to. This allows users to make decisions about what to watch from within a single application rather than a different application for each service, thereby saving time and providing a more streamlined experience. My work focused specifically on creating a feature to give users suggested people (actors, directors, etc.) to consider, as a new avenue for recommending media that the user could be interested in. During my internship, I developed the feature from scratch and created unit and UI tests before it was eventually released into production. I hope that my work done on this application can serve as an example for myself and others of technology development that holds consumer well being first, by not using coercive techniques to create a product that is potentially addictive in nature.

My sociotechnical paper investigated the different influences behind the increasing problem of internet addiction, and how to successfully reduce the impact of internet addiction given this information. I used existing studies on the impact of internet addiction, journalism surrounding tech companies and tech products, and information on different methods available for personal addiction help as evidence during my research. A lack of knowledge about and consideration given to internet addiction; unregulated, coercive techniques used by the companies that create internet-based products; and a lack of solutions for individual assistance with internet addiction were found to be the main influencing factors of the dilemma, and all of these must be addressed in order to ultimately cause a meaningful change.

While I feel I successfully captured the essence of the internet addiction problem and how we can go about addressing it, there were a few areas in which I hope further research can cover. The first is the psychological effects of internet addiction, more specifically its relationship with more traditional addictions such as those with drugs or alcohol, and the second

is the precedent for government regulation regarding tech products and how this impacts the ability for companies to act in potentially unethical ways. I hope that in the future more work can be done to develop specific action plans regarding government regulation for internet-based products, and that more research can be done into the best methods for treating internet addiction from a psychological perspective.

I want to thank my internship mentor, Lauren Meier, as well as my manager, Kelly Sheng, for guiding me during my internship on what would ultimately become the topic of my technical report. I would also like to thank Peter Norton and Caitlyn Wylie, for assisting me in the creation of this thesis portfolio.