

Thesis Project Portfolio

Staunton MakerSpace Communication and Classes Management Systems

(Technical Report)

**How to Combat Fake News in Social Media: A Technopolitical Analysis of Regulation
Methods**

(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

Kane Lee

Spring, 2020

Department of Computer Science

Table of Contents

Sociotechnical Synthesis

Staunton MakerSpace Communication and Classes Management Systems

How to Combat Fake News in Social Media: A Technopolitical Analysis of Regulation Methods

Prospectus

Sociotechnical Synthesis

Since their inception, online web applications have been integral in transforming the way people communicate with each other through its ability to rapidly transfer information regardless of time or location. My technical and sociotechnical thesis are related in that they both focus on this online communication method. However, they differ in that the technical thesis looks at the application and benefit of this technology, while the sociotechnical thesis focuses on new issues that arise from this technology.

The technical portion of the thesis focuses on the development of web application for class management system of local organization that runs volunteer-run workshop sessions. The system allows the members of the organization to register into the web site, see the list of available classes and their descriptions, create their own classes, and register for classes. A group of privileged users, the teachers, are able to see the classes that they have created, manage the list of students that have registered for the class, and handle distribution of class certificates. Another group of privileged users, the administrators, are able to manage the authorization of creation of classes and moderate the statuses of the users and the classes. This project has been fruitful in its goal to alleviate some of the workloads that volunteers have for manually managing and keeping track of their events through automating many of the basic functions.

The sociotechnical portion of the thesis will focus on newly emerged issue of spread of fake news facilitated by social media platforms. As their influence grows, the social media platforms have been given larger role as a part of news network. However, since the 2016 US Election, public concern of fake news circulating through social media has been rising. In order to provide insight to the roles and responsibilities of the two most relevant actors, the sociotechnical thesis conducts a comparative study on US government and Facebook through

comparative study of economical, political, and psychological factors on regulation efforts by self-regulation, statutory regulation, and co-regulation. The results of this study suggests with many scholars' ideas that co-regulation is the most effective way of combatting fake news in social media, but further studies might benefit from finding more cases focused around psychological aspects of regulations.