

## **Thesis Portfolio**

Investigation of Software Testing within Human Computer Interaction  
(Technical Report)

The Role of Social Media and Its Influence on Public Opinion and Political and Social Change  
(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

Cody Miller  
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Department of Computer Science

## **Sociotechnical Synthesis**

Human Computer Interaction (HCI) and software testing are an integral part of software as a whole, and for my technical topic, I performed an investigation into the degree to which software testing pervades Human Computer Interaction, and recommended a modification to the HCI course at the University of Virginia, in order to meaningfully incorporate certain components of software testing to further improve the HCI course. For my thesis I was focusing on the effectiveness of social media and its effectiveness on public opinion and social and political change. Although my technical and STS topics do not directly correlate, Human Computer Interaction, and software testing have a massive effect on social media. This can be seen due to the fact that a critical part of whether or not a platform will be successful is the nature in which humans interact with social media as a whole. By investigating and understanding the different aspects of software testing and HCI, it will help determine what aspects of the platform are considered successful, and can contribute to the effectiveness of influencing social change. By then making recommendations to the HCI course syllabus, it will allow the course to be better prepared to inform a new generation of software developers to be prepared to write programs targeting the social media market.

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