Thesis Project Portfolio

Visualizing AWS EC2 Unsellable Server Instances Using the Elastic Stack

(Technical Report)

Polarization and Radicalization in a Social Media Driven Society

(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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Table of Contents

Sociotechnical Synthesis

My socio-technical research seeks to bring awareness to the issue of social media algorithms and their overall effect on the political sphere in our society. Given the scale of the problem, it is impossible for one person to single handedly "address" the issue with technology or analysis. However, as I state in my conclusion, bringing overall awareness to how these algorithms are subconsciously affecting the lives of their users is a step in the right direction towards forcing these issues to be addressed. If more people understood that the inflammatory content they consumed was purposely being fed to them in order to get a reaction and interaction, and not an accurate reflection of society as a whole, there may be more outcry from the government for change. The problem, at its core, is with technology and how it can change how humans interact in society. I think the best way to analyze this problem is by using Actor Network theory. This is because non-human actors, such as the social media algorithms programmed with the sole purpose of maximizing engagement, are affecting a variety of different human actors, including content creators, consumers, and policy makers. To conduct this research, I am primarily constrained to literary review as one person. Technologically analyzing this large of a problem requires significant investment, so for my analysis I compiled the work of others with more resources. Through my research, I found that social media algorithms are a major reason for the general increase in political polarization and radicalization in our modern society. I hope my research will bring more eyes to the issue, especially policy makers who have the power to change things. My technical capstone was not related to my socio-technical research.