Thesis Portfolio

Satori: Open-source Course Management System
(Technical Report)

Deja Queue: Examining Office Hours Queues
(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, 2020

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Sociotechnical Synthesis

Oftentimes, the subtleties of human interaction with software gets overlooked in the drive to stay with the times and incorporate new technologies. New technology can be very beneficial from many different standpoints, but it is always useful to take a step back and consider how, if at all, such technology should be integrated into an existing system, and to analyze the specifics of each scenario. Online office hour queues can be a very appealing option to professors who are looking to streamline their office hour sessions. At the same time, such a change is not necessarily a simple replacement – many factors are involved in choosing what type of queue will work best for each course and how to manage it appropriately. My thesis uses the STS framework of Social Construction of Technology to dive deep into the details of office hour queues and the necessary consideration that must go into such a system to satisfy its wide range of stakeholders.

My thesis is directly inspired by my capstone research project, in which we built exactly one such system as a part of creating an online course management system. Throughout the queue design process, we attempted to garner feedback from many different sources, including, but not limited to, current and former students in the course we intended to introduce the course management system to, friends, TAs, and professors. We used the many lessons that we learned during this process to design a queue that satisfied the needs of its consumers and was still intuitive to use. My thesis then builds off of those lessons to more concretely explore the relationship between software and its stakeholders for a specific product. Just as we attempted to navigate the complex nuances between technology and society in our capstone, others should keep in mind the same principles when working on any software development.