

## **Thesis Portfolio**

Horse Show Administration Program Improvements  
(Technical Report)

The Social Construction of Libra  
(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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## **Sociotechnical Synthesis**

How are technologies selected for use on different scales of size? In the case of a small, family-owned business, the owners may opt to use whatever technology seems most convenient at a glance. On the other hand, a large, publicly-traded company will spend weeks or months deciding which technologies are worth adopting or developing. As virtual technologies become more widespread in companies both large and small, it becomes important to understand why certain technologies are selected and how these innovations are constructed.

To reach this understanding, I work with a small horse farm in creating the technology of their choosing: a logistics website for horse show competition registration. Working first-hand on such a small scale shows the challenges of maintaining small scale projects. In the corresponding report, my team and I show the process of designing according to user requests and the thought process that goes into developing low user count features.

On the opposite end of the spectrum, I analyze the development of macro-scale banking technologies. Taking a specific look at Facebook's cryptocurrency Libra, I use the Social Construction of Technology (SCOT) to better understand how variation and selection of technology occurs on a global scale. By the end of this analysis, I suggest the addition of a concept I call 'Core Groups' for analyzing the construction of publicized technology.