Thesis Portfolio

Staunton Makerspace Communication and Classes Management Systems
(Technical Report)

Smartphone and Internet Usage in Sub-Saharan Africa
(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science
University of Virginia

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Bachelor of Science in Computer Science

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Sociotechnical Synthesis

The subject of my thesis is a simple question, that of why some companies or products have succeeded beyond all expectations in Africa, while others with far more resources and talent behind them have failed. The subject of my technical report is the creation of a website for the Staunton Makerspace. This website was built with the twin goals of providing the makerspace a better communication system, and providing them a better means of scheduling classes and events in the makerspace.

The motivation for my thesis question came from my field of study, software engineering. The primary goal of a software engineer is to deliver a successful product by ensuring that their product fulfills a clear need and is put into use by the customer, rather than the product being deemed worse than useless upon delivery and so simply discarded. This made the answer to the question of what factors have led to the success and failure of products extremely relevant to my field of study. Unfortunately, that's the closest connection there is between these two subjects. My thesis is almost entirely focused on the African market, and while some of it's conclusions could be applied more generally, none of them played a major role in the development of my technical project. Meanwhile, my technical report is on the development of a website for a company in Staunton, Virginia, which lies decidedly outside of the main scope of my thesis. Unfortunately, there is no relation between these two topics to discuss in a sociotechnical synthesis.