

Thesis Project Portfolio

The Cloud: How the Cloud Will Change the World of Finance
(Technical Report)

The Implications of FemTech and its Current Place in Society
(STS Research Paper)

An Undergraduate Thesis

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Bachelor of Science, School of Engineering

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Sociotechnical Synthesis

My technical and STS topic are closely integrated with each other and both deal with the fast-paced and growing industry of FemTech. My technical topic dives into the market of existing and up-and-coming apps that cater to feminine issues. My STS topic uses the actor-network theory and Pacey's culture of technology framework to analyze the inner workings of the FemTech industry and how it can continue to keep growing. Despite the significant amount of profit that the FemTech industry stands to make in the future years, there is still a stigma attached to women's health in general and FemTech startups are having a lot of difficulties finding funding. My STS research explores the hardships that these startups face and how the FemTech industry is growing with venture capitalists that may not have the industry's best interests in mind.

Through market research, this technical project observed the effect of apps on women's health care. Smartphone devices are arguably the most used technology by every individual so it only made sense to look at how this specific technology is affecting FemTech. During my research, I examined the current apps on the market and saw what they specialized in and how exactly they were helping women. I did this by first choosing a few major apps to focus on and then doing a study on how many users each app holds and what feedback they get. By doing this research, I was able to get a firsthand look at how this specific technology is helping break down barriers in women's health care.

The current state of the FemTech industry has a lot of potential, in fact, analysts estimate that the market will be worth approximately 50 billion by 2025. Even with these impressive numbers, FemTech startups have an exceedingly difficult time trying to get investments and help from outsiders. Only 3% of digital healthcare deals from 2011 to 2021 catered toward women's

healthcare needs (Faubion, 2021). If more capital is put into these technologies, then not only can FemTech help with fertility, menstruation, and breastfeeding, but it can also address chronic disease management specific to women, urinary health, pelvic healthcare, and many more topics.

The funding that actually does occur for these startups and multimillion-dollar projects, however, comes from the pockets of mainly caucasian men who have little to no experience with what women actually go through and what they need. If a homogenous group of people creates a piece of technology then it will most likely only cater to that specific group and not think to look at other groups of people. Many scholars worry that digital products reinforce sexist stereotypes and promote negative ideals through inaccurate information created by misinformed individuals. In my research, I attempted to dissect why FemTech startups have not been able to get the funding they need using two frameworks. The actor-network theory helped to explain who the key players were in this situation including the venture capitalists, the startups, and the stakeholders. Pacey's framework helped to explain why some venture capitalists were funding startups that they knew nothing about, just for profit.

These two projects, although focusing on relatively different things, enriched one another through the two different perspectives they brought. I was able to look at real-world examples of how biased technologies such as apps that only cater to one demographic can cause consequences. The future of femtech remains up to societies' will to move past their preconceived, outdated notions of women's health care and use emerging technology for the greater good. Since the technical report aimed to understand the current technologies on the market in the form of smartphone applications I was able to retain a solid understanding of what these apps are lacking and why.

