

**Thesis Project Portfolio**

**Tap2Change: Cashless Transactions for Panhandlers**

(Technical Report)

**Story-telling Spaces: Fostering Empathy Through Crowdsourcing**

(STS Research Paper)

An Undergraduate Thesis

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

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Bachelor of Science, School of Engineering

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## **Sociotechnical Synthesis**

This thesis covers both the Technical Report of Tap2Change, an application which enables cashless transactions for panhandlers, as well as the STS Report which looks into fostering empathy within a community through the use of storytelling. As students at the University of Virginia we often interact with not only peers and professors, but also Charlottesville locals as we walk up and down the streets of the Corner. Being a high foot-traffic area, many homeless individuals and panhandlers from the Charlottesville area set up signs asking for donations from passersby, practically depending on the kindness of strangers for their next meal or new clothes. Despite the high volume of people passing by on a daily basis, it's clear to see that these individuals struggle to make a living and get by on scraps. This led me to question why more people, myself included, don't donate to their cause when most of us have money to spend on frivolous items for ourselves. Is it because we don't have cash to give? Is it because we are untrusting of where the money will go or what it will be used for? Or is it simply because we are unwilling to give? Through the research conducted in this paper, I aim to identify and develop a solution which can not only improve the financial situation of homeless individuals, but also help to systemically uplift and empower them to break out of cycles of poverty.