

Thesis Project Portfolio

Addressing Labor Rights Exploitation in the Global Tech Industry: A Collaborative Platform Proposal

(Technical Report)

Addressing Labor Rights Exploitation in the Global Tech Industry: A Collaborative Platform Proposal

(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

Danish Chauhan

Fall, 2023

Department of Computer Science

Table of Contents

Sociotechnical Synthesis

Addressing Labor Rights Exploitation in the Global Tech Industry: A Collaborative Platform Proposal (Technical Report)

Addressing Labor Rights Exploitation in the Global Tech Industry: A Collaborative Platform Proposal (STS Research Paper)

Prospectus

Sociotechnical Synthesis

In an era where technological innovation and ethical labor practices often collide, my research and technical projects converge to address the pressing issue of labor exploitation in the global tech industry. The inspiration for this topic came about when I was working for a software company in Pakistan and witnessed some of my coworkers working significantly more hours for less pay on outsourced work than their foreign team members. This portfolio includes a dual approach: an STS inquiry into the "996" work culture in China and outsourcing practices in countries like India, as well as the creation of a digital platform to amplify worker voices. While the research paper analyzes and dissects the issue, my proposed technical project aims to leverage the results of the research and prior experience in programming to propose a collaborative web-based platform in tackling the problem.

The technical portion of my thesis proposes a collaborative online platform poised to disrupt the cycle of exploitation in the global tech industry. Using the React Framework and machine learning algorithms, this platform is designed to serve as a hub for data exchange, advocacy, and community support, propelling the movement against labor rights abuses. The anticipated results of this project include enhanced labor rights awareness, a quick and efficient company reporting system, potential use by decision makers to develop better solutions in addition to labor unions, NGOs and advocacy groups to expose exploitative practices.

In my STS research, I've delved into the fabric of the "996" work culture (a culture of working from 9 a.m to 9 p.m, 6 days a week), unraveling how this standard violates labor laws and worker well-being in China. Furthermore, I have explored the problems associated with outsourcing tech work to developing countries like India. By employing Actor Network Theory, I've also highlighted the multifaceted actors and dynamics that underpin such exploitative

practices, including actors like policymakers, tech workers, tech managers and leaders, economic systems, laws and regulations, and cultural norms. As such, this work brings forth the cultural, political, and economic aspects involved in the current state of labor exploitation, advocating for policy reforms and cultural shifts to foster ethical labor practices as well as exploring the applicability of digital platforms in disrupting the negative aspects and obligatory points of passage of the system that were identified through ANT analysis. The results of this research could also be utilized by decision-makers, including policymakers, corporate leaders, labor unions, and NGOs, to develop better strategies in combating the issue.

My work highlights the importance of careful innovation: while rapid technological innovation has been profoundly beneficial in numerous ways, it should not be at the expense of the engineers who are driving said innovation in the first place. Allowing such exploitation to continue would not only be deeply unethical, but would also serve to have a detrimental effect on technical progress in general. By integrating ANT's exploration of actor networks with a digital platform concept, my work demonstrates the potential of STS frameworks to guide the development of technologies that are not only functionally sound but also socially responsible, fostering a tech industry where progress and ethical labor practices go hand in hand.