Addressing Labor Rights Exploitation in the Global Tech Industry:

A Collaborative Platform Proposal

A Technical Report submitted to the Department of Computer Science

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

University of Virginia • Charlottesville, Virginia

In Partial Fulfillment of the Requirements for the Degree

Bachelor of Science, School of Engineering

Danish Chauhan

Fall 2022

On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Kathryn A. Neeley, Department of Engineering and Society

ABSTRACT

In a world dominated by the tech industry, the pervasive issue of labor rights exploitation demands our attention. To address these labor rights issues which have societal and economic repercussions, I propose developing a web-based platform that would allow workers, unions, NGOs and so on to share information, data and insights about working conditions and labor rights violations in the tech industry. The application would be made in the React Native framework and could also include machine learning algorithms to detect patterns and trends in labor rights abuse. Moreover, the platform would include a company database enabling users to rate organizations based on their labor practices, empowering individuals to make informed decisions about their employment and consumer choices. The proposed platform will feature a chatbot function through the OpenAI API for quick access to information on labor rights and a direct reporting mechanism for violations. By enhancing transparency and awareness, this project aims to pressure tech companies into adopting fair labor practices. Future work would focus on platform development, user testing, stakeholder engagement, and acquisition of server space and licenses to bring this vision to fruition.

1. INTRODUCTION

Labor exploitation in the global tech industry, exemplified by the "996" work culture in China and outsourcing practices in countries like India, poses a significant threat to individual well-being as well as the greater society and economy. In China, large tech companies have been able to normalize a "996" work culture among their labor force, where employees are expected to work 9am to 9pm, 6 days a week. This "996" work culture has been dubbed a form of "modern slavery" (Wang, 2020), where managers use controls to exploit power/distance, high levels of insecurity, and unenforced labor rights to impose harsh working conditions. Meanwhile in countries like India and Pakistan, unchecked outsourcing has led to low wages, inadequate working conditions, and job insecurity for workers.

I witnessed exploitation first hand while I was working for a software company in Pakistan. Many of my coworkers were working on outsourced projects from foreign countries such as Germany. I saw some of them working more hours for significantly less pay than other workers on the same team who were located in more developed countries. Such unchecked exploitation is often a result of a lack of policies in place to protect the well-being of outsourced workers. It is also important to note that while there have been many positive consequences due to outsourcing in India and Pakistan such as boosting its economy, providing more job opportunities and increasing opportunities for women, there are also several associated problems such as high attrition rates, poor infrastructure, and lack of overall control.

There is a great need for an online platform to allow workers, unions, and NGOs to organize and share information, data, and insights about ongoing labor violations and exploitation in the tech industry in order to raise awareness and bring about change. The impact of such online platforms can be seen in the past in the example of Github in China (Zhen, 2021).

2. RELATED WORKS

Firstly, one important piece of literature pertaining to my project is Zhen's (2021) article where he discusses how the social coding platform GitHub served as an enclaved public sphere for Chinese developers to organize and express dissenting opinions about the overwork culture in the tech industry. He highlights the importance of

digital technologies in facilitating collective action and organizing protests against companies, while also offering anonymity to participants. This article directly inspired the idea for my project and is a great case study of the effectiveness of online platforms in raising awareness of exploitation and rallying for change.

Another important work relevant to my project is Kersley's (2021) article on the topic of "clickwork", which refers to the basic yet labor-intensive work conducted by people who are often separated from other workers and defined by low wages, long hours, and poor working conditions. The author talks about the plight of workers in developing countries who are paid extremely low wages while essentially working as full-time online ask performers. Kersley is critical of the companies that have allowed such exploitation to occur. This article is informative and relevant to my project as it pertains to the same kind of exploitation I witnessed while in Pakistan.

Wang (2020) and Tan's (2022) articles are also highly relevant to my project as they contain valuable insights into how cultural conditions and exploitation by managers promote labor rights abuses in China. Wang examines the combination of unrestricted global capitalism and a Confucian culture of hierarchy and obedience imposed by industry leaders and managers, while Tan talks about the extreme measures taken by managers to exert control on their employees (such as blocking 4G signals in bathrooms to prevent employees form lingering on their phones) and the potential benefits of ending the "996" work culture.

3.   PROPOSED DESIGN

In creating an effective solution to combat labor exploitation in the global tech industry, it is essential to design a platform that is both user-friendly and functionally comprehensive. The main challenge lies in gathering accurate, unbiased information and presenting it in a manner that empowers workers, unions, and NGOs to make informed decisions.

3.1   Review of System Architecture

The architecture for my proposed platform is based on a web-based model developed in the React Native framework. This enables a cross-platform application that can be accessed via web browsers as well as natively on mobile devices. Given the global nature of the issue, accessibility is a primary concern: the platform needs to be easily accessible across various devices and operating systems.

3.2 Requirements

To ensure the success and integrity of the platform, a set of defined requirements has been established, addressing both the needs of the platform's diverse users and the technical considerations essential for its operation.

3.2.1 Client Needs

Usability is an important client need. A simple and intuitive user interface which caters to users with varying levels of tech proficiency will be optimal. Additionally, since the many potential users would be workers reporting on their current employers, the platform would need to ensure complete anonymity for all users. Moreover, robust data security and encryption would be of paramount importance for such a platform in order to ensure no personal data is leaked.

Given that the platform aims to have a global reach, multi-language support and incorporation of translation AI is essential. Furthermore, to aid in instant information access, a chatbot powered by OpenAI API that could provide quick answers related to labor rights would also be highly beneficial, in addition to search functionality to allow users to narrow down companies, specific reports, or relevant labor rights information. A community forum would also aid in sharing information and mobilizing.

3.2.2 System Limitations

For one, data verification is a potential challenge. Ensuring the accuracy of user-submitted data without compromising anonymity is of great importance as false or misleading reports could damage the platform's reputation and diminish its impact. Scalability is another limitation which would need to be addressed since as the platform gained popularity, it would need to handle an increased number of simultaneous users without compromising speed or functionality. Anticipating the potential growth rate is important as encountering slow loading or frequent crashes would deter individuals from using the platform, reducing its impact. Security in terms of protecting user data is also an anticipated challenge as protecting against potential threats, hacks, or data breaches requires consistent updates, regular monitoring, and possibly significant financial investment. Finally, different countries have different regulations regarding data protection, user rights, and online platforms, and navigating the global legal landscape and ensuring compliance in all regions can be complex and challenging.

3.3 Key Components

The architecture of the proposed platform is built upon several key components, each designed to support the functionality required to address labor rights exploitation effectively.

3.3.1 Specifications

The first specification would be a robust database to store company ratings, user reviews, and reported labor. This database will be searchable and sortable, allowing users to quickly find and compare company profiles. There would be regular automated backups along with a disaster recovery plan to ensure data integrity and availability. A company rating system would also be required so that users can rate organizations based on their labor practices. There would be clear guidelines for how ratings are calculated and any potential conflicts of interest are declared for complete transparency. A team of moderators would monitor and verify reviews for authenticity and to prevent spam.

Another important specification is pattern recognition: machine learning algorithms would help to analyze data and detect patterns in labor rights abuses, helping to pinpoint systemic issues. For more accurate pattern detection, various machine learning models tailored for different kinds of data would be used in addition to constant training and updates. As for the UI, features like text-to-speech and high contrast modes would be offered for users with disabilities.

3.2.2 Solutions to Challenges and Limitations

Implementing a moderation system where each report submitted by a user is peer-reviewed by a designated number of other platform users will be instrumental in addressing the issue of data integrity, ensuring that the reviews are authentic and free from false or exaggerated claims. This would allow for a democratic and transparent validation process. User incentives could be offered for active participants who consistently provide validation of reviews, encouraging more users to participate in the moderation system. Additionally, machine learning algorithms could scan the reports and automatically flag entries based on suspicious criteria such as repetitive patterns, high frequency from a single user, or contradictory information. Flagged entries would be sent to the community for further validation.

To address the problem of scalability, scalable cloud solutions such as AWS or Google Cloud could be used in addition to implementing load balancers to prevent servers from getting overloaded. The issue of security can be further tackled beyond encryption by collaborating with cyber-security firms to regularly test and assess the system's vulnerabilities, as well as implementing measures like multi-factor authentication and intrusion detection systems.

4.   ANTICIPATED RESULTS

The anticipated results of this project include enhanced labor rights awareness, as job seekers and consumers would gain a clearer perspective on company labor practices. Additionally, the time taken for users to submit reports and access company profiles will be significantly reduced due to the intuitive design and efficient backend infrastructure.

Data reliability would be improved, as the combination of peer-review and machine learning verification would ensure that the data presented to users is of high integrity. This platform could also be potentially used by decision-makers including policymakers, corporate leaders, labor unions, and NGOs to develop more comprehensive strategies. Labor unions and NGOs can use the platform to expose exploitative practices while advocacy groups can use it to craft better campagins.

5.   CONCLUSION

At its core, this project is an endeavor to harness the power of digital collaboration and technology. The proposed platform goes beyond mere reporting; it can act as a catalyst for change, empowering workers, unions, and NGOs with the tools necessary to share information and mobilize action. Moreover, the anticipated impact of the platform is multifaceted: it stands to enhance transparency in labor practices, provide a voice to the often voiceless, and contribute to a more equitable tech industry.

6.   FUTURE WORK

The next phase of this project would focus on the iterative development and enhancement of the platform, incorporating feedback from early users to refine functionality and user experience. Immediate steps include finalizing the machine learning algorithms for pattern recognition, optimizing the database for scalability, and ensuring compliance with international data protection regulations. Subsequent versions would aim to integrate more advanced features, such as predictive analytics, to preemptively identify potential labor rights violations before they become systemic issues.

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