Empowering and Enhancing Workers Through Building A Community-Centered Gig Economy

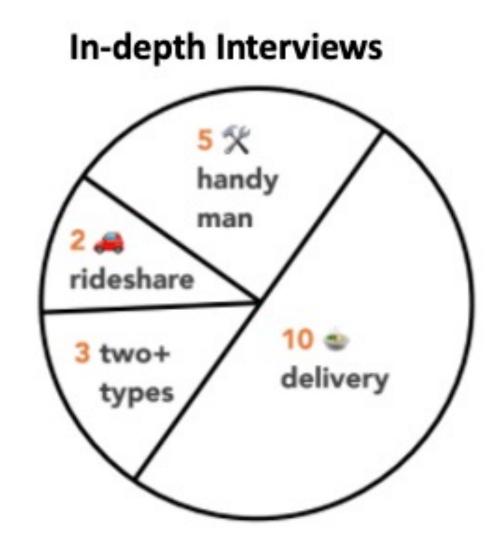
Haiyi Zhu & Zhiwei Steven Wu (CMU), Yanhua Li (WPI), Min Kyung Lee (UT Austin), David Burtch& Zhi-Li Zhang (UMN) SCC-IRG Track 1, FY2020

Motivations: Worker wellbeing on the gig economy platforms have become significant societal problems. For example, most gig workers lack financial stability, have low earning efficiency and lack autonomy, and many have health issues due to long work hours and limited flexibility.

Project activities to date: We have conducted in-depth semistructured interviews with gig workers, content analysis using social media data, and decision modeling using trajectory data in order to understand gig workers' concerns, challenges, and decision-making strategies related to gig worker wellbeing, as well as the current practices, and problems of existing gig economy platforms.

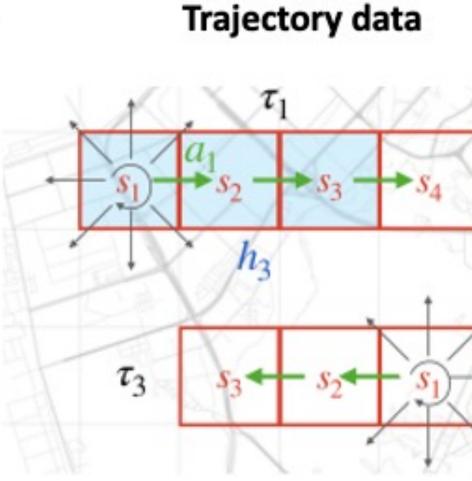
The solution can be potentially generalized to Broader impact: This work will the whole nation. The PIs will make the improve the social and proposed meta-platform, data, and economic wellbeing of gig algorithms open and explainable to the users workers and people live in the and communities. This work will contribute three metropolitan areas of to educational integration activities in four Pittsburgh, Minneapolis-Saint institutions and the creation of new modules Paul, and Austin. for the massive open online courses.

Intellectual Merits: (1) We will generate knowledge about human behavior in complicated socio-technical systems. (2) We will create novel algorithms to balance the diverse set of objectives and constraints of the workers and communities, along with interfaces to explain the algorithms. (3) We will deploy our system and evaluate its effectiveness to addresses the problems of worker wellbeing and systematic biases in gig economy.



Content analysis on 20 social media groups

Group Name	# of
Uber/Lyft Drivers Facebook Group	16,000
UBER DRIVERS	28,000
Uber & Lyft Drivers Los Angeles	12,000
UBER, VIA, LYFT, DRIVERS IN NEW YORK CITY	11,000
Florida - Uber Lyft Drivers	6,300
Arizona Lyft-Uber Drivers	2,500
Pittsburgh Uber	1,200
Uber & Lyft Drivers Seattle/WA	3,900
Lyft/Uber Women Drivers	14,700
Female Uber/Lyft Drivers	8,100



Next steps: (1) Synthesize and generate insights that inform the design. (2) Develop data-driven decision support systems for gig workers to navigate gigs on existing platforms. (3) Engage workers and community stakeholders in the co-design of new possibilities for community-driven and community-owned gig platforms.





