Research Concept Outline:
Understanding Workers Transition to New Digital Labor Jobs

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Due to the COVID-19 pandemic, a number of gig workers who engaged in location-based gig work (e.g., Taskrabbit, Care.com or Wag) have had to transition to new jobs that are independent of location (e.g., online freelancing and microtasking)[1] [2]. The goal of this proposal is to document the short-term challenges that these workers are facing when **transitioning** to new jobs in online freelancing and microtasking. We also aim to generate educational material to improve the **onboarding** process of these gig workers, as well as providing design implications for intelligent platforms that facilitate onboarding them. This project connects to our previous extensive work on gig literacies and the design of systems for helping rural adults to join gig markets and start making a new living.

Background and Rationales for the Project.

Many of the locations in which location-based gig workers operated have closed. Much of their work is also dangerous or unavailable (e.g. clients on the Wag dog walking gig market are now staying at home and no longer need the service). Consequently, some gig workers have started switching to location-independent gig work[3]. Remote online freelancing is specifically gaining traction amid the the shelter-in-place orders[4].

While these workers might already be familiar with gig work and digital labor platforms, the dynamics of location-independent **digital labor** (i.e., online freelancing and crowd work) can still be different and overwhelming for them. Digital labor involves a global and remote scale; so, the state of competition is different from location-based gig services where clients and workers are local and usually meet in person. For example, online self-presentation and distinguishing oneself can be challenging if one has to solely work online with clients. As a result, newcomers to digital labor are often required to develop two set of distinct meta skills:

1. How to promote/present themselves and the skills they have, compete for jobs with other global workers, boost their personal ratings, and set the hourly rates. We have studied these in the past and called them gig literacies[5].

2. How to accomplish work remotely; this includes things like how to effectively communicate with clients, and how to balance between personal and professional lives through time management.

Our goal in this project is thus threefold: (1) to examine how the skills in location based gig work can translate into the skills needed for digital labor; (2) develop manuals that could help location based gig workers transition into digital labor in the current crisis; and (3) identify design implications to develop tools that could help location based gig workers transition to digital work online.

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[1] https://www.washingtonpost.com/business/2020/04/02/uber-airbnb-lyft-unemployment-coronavirus/

[2] https://komonews.com/news/coronavirus/gig-economy-workers-struggle-in-covid-19-world-amid-scant-access-to-benefits

[3] https://seekingalpha.com/article/4335309-upwork-online-freelance-marketplace-surge-due-to-covidminus-19

[4] https://www.forbes.com/sites/jonyounger/2020/03/29/this-pandemic-is-driving-huge-growth-in-remote-freelance-work/#175327787747

[5] Sutherland, Will, Jarrahi, Mohammad, Dunn, Michael and Nelson, Sarah. "Work Precarity and Gig Literacies in Online Freelancing." *Work, Employment and Society* (2019): 0950017019886511.

Description of the Data Collection.

We will conduct social media data analysis and interviews to explore the challenges and opportunities that gig workers face when transitioning into jobs in digital labor.

Social Media Data Analysis (July 2020- Sep 2020):

We will collect data from online communities where gig workers share advice, filtering for gig workers from location-based platforms. We will then use topic modeling techniques, tied with qualitative text analysis to obtain a rich understanding of the conversations gig workers are having around transitioning to new jobs. In doing so, we will build on our past work on social media[6] and research focused on using forums to understand workers' needs[7].

Interviews (Sep 2020 – Oct 2020):

Interview participants will be selected from online sources such as Facebook pages and tweets where the workers discuss challenges of their (location-based) gig work practices. The interviews will focus on personal stories around the common challenges of old gig work, and those affiliated with entering a new platform. Interviews will also delve deeper into how they find the right tasks and projects, strategies used to learn new skills and gig literacies, and finally how to work successfully from home as a remote digital worker.

Analysis (Nov 2020 - Dec 2021):

Our analysis documents common onboarding challenges as well as invisible work these workers recurrently conduct to operate as new digital workers. The analysis will result in design implications for systems that can help location-based gig workers transition into jobs in digital labor, while creating a more reliable and satisfying work environment.

Educational materials (Jan 2021 – Mar 2021):

This set of documents will be put on the project's website and will provide a summary of best practices that help gig workers use digital labor platforms as a reliable source of income and how to best transition into new jobs. We will aim to start sharing guidance on how to transition to new jobs from the start of our data collection. We will build on our current experience creating educational material[8] during the Pandemic for crowds fabricating medical devices.

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[6] Flores-Saviaga, Claudia I., Brian C. Keegan, and Saiph Savage. "Mobilizing the trump train: Understanding collective action in a political trolling community." *Twelfth International AAAI Conference on Web and Social Media*. 2018.

[7] Chiang, Chun-Wei, Anna Kasunic, and Saiph Savage. "Crowd Coach: Peer Coaching for Crowd Workers' Skill Growth." *Proceedings of the ACM on Human-Computer Interaction* 2.CSCW (2018): 1-17.

[8] https://drive.google.com/drive/folders/1g2Qfo3RHdoeNsoSBpP-hhdiQoPCBMscW

Long Term Plans

A long-term outcome of this project is a better understanding of the concept of gig literacies, the ways workers can develop meta skills to switch between digital labor platforms and make a more versatile career by diversifying their portfolio in the gig economy. To deal with crises like Covid-19, workers may need to offer multiple gig services rather than focusing on one platform and one type of work[9]. In the next step, we plan to draw on lessons learned from the empirical work and develop and evaluate systems that can help location-based gig workers transition more easily into digital labor.

The PI, Dr. Mohammad Jarrahi, will collaborate with Dr. Saiph Savage from Microsoft Research to transform implications of design into intelligent assistants in the form of web browser extensions that facilitate the on-boarding process of new online freelancers. For the design implications, our team will build on our current experience with plugins and tools for gig workers[10] .

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[9] https://www.nytimes.com/2020/04/06/nyregion/coronavirus-new-york-freelance-gig-workers.html

[10] Savage Saiph, Chiang Chun, Saito Susumu, Toxtli Carlos, Bigham Jeffrey, Becoming the Super Turker: Increasing Wages via a Strategy from High Earning Workers, WWW: The Web Conference 2020

Budget

EHRA Salary	Remaining summer salary for PI Jarrahi: $4,378
SHRA Salary	N/A
Grad Student	Two RAs, each appointed for Fall 2020 semester: $13,000 each, Total $26,000
Temps	Independent contractors: Research: $7,000 Transcriptionist: $1300
Fringe Pool	Fringe for Jarrahi: $1,384.88 Fringe for RAs: $4,486.40 Fringe Total: $5,871.28
Non-Personnel Expenses	Dissemination costs: $700 SILS IT Fee: $2,000 Student Tuition and Fees: $15,276
Total	**$62,525.28**