
It Takes a Village to Change Jobs: Towards Workplace Relationships That Support Reskilling in Crowdwork

Veronica A. Rivera

University of California, Santa
Cruz
Santa Cruz, CA 95060, USA
veariver@ucsc.edu

David T. Lee

University of California, Santa
Cruz
Santa Cruz, CA 95060, USA
dlee105@ucsc.edu

Abstract

Crowdwork platforms like Amazon Mechanical Turk (AMT) fall short in supporting crowdworkers' ability to reskill and transition jobs, even when these are valued by the workers themselves. To better understand how crowdwork platforms might address this need, we study how people change careers outside the context of crowdwork, and compare the resources they lean on to what is or is not available in crowdwork environments. We found that close interpersonal relationships, many of which formed out of collaborative project-based work, were instrumental to successfully learning new skills and landing jobs. Building on these insights, we ideate on two potential workplace organizational structures for fostering relationships in crowdwork: an online environment that emulates the learning benefits of shared physical spaces, and a platform that organizes shared physical interaction around projects that support local communities.

Author Keywords

On-demand economy; learning; career development; career change; interpersonal relationships; online labor

Introduction and Background

Tech innovation is having a profound impact on the nature of work. In 2016 at least 20 million adults in the U.S. earned money by working on online on-demand tasks, a number that is expected to rise [9]. This online on-demand gig economy presents a new and unique form of work. For example, its innate flexibility allows those with disabilities or those needing to care for family members to work from home while contributing to household earnings [3]. However, this form of work presents several challenges. Workers on crowdwork platforms like Amazon Mechanical Turk (AMT) face issues such as low pay, lack of basic worker protections, and power imbalances [18, 10, 16, 13]. If more and more individuals are expected to be part of this workforce in the years to come, it is imperative to improve working conditions on these platforms, to create a *“future crowd workplace in which we would want our children to participate”* [14]. Some researchers have made progress towards this goal by facilitating workers' reviews of requesters [12], strengthening worker-requester relationships [16], supporting organization for collective action [17], and developing guidelines for designing a worker-centric peer economy [1].

Another important area of crowdworker welfare is workers' ability to reskill and develop their careers, such as moving from AMT into specialized freelance work online, or from crowdwork into white-collar jobs in physical workplaces. Workers may need to learn new skills and become familiar with an entirely different line of work, which could be challenging and confusing. In a recent study, Blaising et al. showed that online freelancers struggle with uncertainty as they assimilate into their career within online platforms due to lack of organizational support like that found in traditional brick-and-mortar workplaces [2]. A similar lack of organizational support in crowdwork platforms could cause crowdworkers changing careers to struggle finding opportunities to learn new and complex skills and navigating the job search process to find opportunities for their skills.

On the learning front, researchers have investigated making crowdsourcing tasks more complex so as to develop skills [7, 8] and repurposing existing tasks as mentored internships, to increase access to paid learning opportunities [19]. On the career guidance front, researchers in [4, 5, 6] looked at how to design and build employment tools to guide disadvantaged job seekers in developing skills and finding jobs, emulating the mentorship structures that might be found in traditional brick-and-mortar workplaces. Although this work did not focus on crowdworkers specifically, we are inspired by the HCI empowerment framework [6] arising from this work and believe it may be applicable to crowdworkers as well. We build on this set of related work by deeply exploring crowdworkers' career goals and related challenges, and using those insights to not just optimize learning within the confines of existing crowdwork environments, but redesign these environments as a whole to better support learning and career development.

In this paper we summarize a study we are conducting to

characterize AMT workers' barriers to reskilling and the challenges they may face in changing jobs. A pilot study demonstrated that crowdworkers value career development and want to someday have *"a job with opportunities to climb the career ladder and get more responsibility"*, necessitating reskilling and a change in career path. To better understand some of the challenges inherent to reskilling and changing career paths and what leads to success, we interviewed people outside on-demand labor who transitioned into a completely new industry. We found a key factor in their success was interpersonal relationships that formed out of collaborative project-based work in shared physical spaces, a type of relationship that crowdwork platforms do not support. This finding provides an initial perspective for thinking about the future of workplaces for crowdwork. In this workshop we are eager to discuss the following: how can we either create online environments that emulate the collaborative learning benefits that people get through shared physical spaces, or how can we support better shared physical interaction for crowdworkers that enables them to learn and grow their careers together?

Reskilling Through the Lens of Individuals Transitioning Into Tech

We first sought to understand the challenges inherent to transitioning careers into an entirely new field. We interviewed 5 individuals outside on-demand labor who successfully transitioned into engineering and tech jobs via nonlinear career paths (i.e., obtaining a degree in Spanish, doing social work for several years, then switching to software engineering). We focus on this group of people as a case study of individuals who successfully made a big career change. Understanding their experiences might help shed light on important factors that facilitate such a career move to guide our investigation of reskilling on AMT.

Bottom-up thematic analysis of our interviews revealed that participants faced challenges related to self-confidence, social stigma, limited time, and difficulty accessing learning resources such as mentors. They often had feelings of imposter syndrome while reskilling because of their unconventional career path. These were exacerbated by the extra scrutiny they faced from employers on account of their career path and having a background atypical of the common tech employee. We also noticed a tension between learning and meeting basic needs due to the high time costs associated with reskilling and looking for a new job. Many participants faced financial difficulties and had several constraints on their time, so they had to make choices about using valuable spare time to learn or to work a second job to feed their family.

We also found that the key to overcoming these challenges and tension was the interpersonal relationships that formed out of collaborative project-based work in shared physical spaces. Participants formed communities of practice centered around a common goal of collectively learning computer programming and other relevant tech skills. Within these groups they explained difficult concepts to each other. Peer support served as a form of mentorship and helped individuals overcome challenges related to imposter syndrome and access to learning materials. Collaborating on projects helped develop technical and communication skills, while also serving as an opportunity to build a solid foundation for networking. Because individuals worked closely together, they knew each others' strengths and weaknesses and could help peers find jobs or connect with important contacts in their own networks. Having friends vouch for them helped individuals ease employers' distrust of their atypical background. As some of these challenges felt less severe, individuals felt more confident investing their time and limited financial resources into learning because the

challenges became less inundating. Being surrounded by a supportive community made the reskilling process a lot more bearable. As one participant expressed, "*community was definitely necessary to go through something so unknown*".

Equipped with this understanding of reskilling and what it takes to transition successfully into a completely new industry, we are now delving deeper into the results of our pilot study. We will interview workers on AMT to further evaluate their long-term career goals, what they have done to work towards those goals, and the challenges they already face in this space. We hypothesize that workers on AMT would face similar challenges in reskilling as those faced by workers transitioning into a completely new industry, and that the tension between learning and meeting basic needs would be exacerbated by the nature of crowdwork. Therefore, we will conduct these interviews with an eye towards the role relationships and community could play in reskilling, as well as how the environment of crowdwork platforms currently affects learning and career development.

Towards On-Demand Workplaces That Facilitate Reskilling

For individuals transitioning into engineering and tech jobs via nonlinear career paths, relationships that formed and strengthened through collaborative project-based work in shared physical spaces were the key to success. However, the spaces in which these relationships were grounded do not exist in crowdwork platforms. The nature of online on-demand work is such that workers are forced to constantly consider how their decisions affect their financial standing and reputability. The goal is to get tasks done quickly, get paid, and move on to the next available task that needs to be done. The focus is on the immediate outcomes, not those that are long-term.

Consequently, the relationships that form in crowdwork platforms arise to meet the goals within this environment and alleviate the challenges. Workers form relationships around reducing transaction costs, getting the work done quickly, and re-creating the social aspects of work [9]. While these relationships are important for working around the system and environmental constraints, they could not support barriers to reskilling such as learning complex skills and finding job opportunities to build those skills. As we saw through our earlier interviews, those relationships necessitate extensive collaborative projects where the work is complex and hands-on, and thrive in the intimacy of shared physical spaces where individuals can help each other out and provide peer support. We are interested in exploring how to either create online environments that emulate the collaborative learning benefits that people get through shared physical spaces, or how to support better shared physical interaction for crowdworkers that enables them to learn and grow their careers.

We imagine an online environment in which on-demand labor platforms are built on a model of distributed apprenticeship [11] and micro-role hierarchies [15]. Work would be organized into micro-role hierarchies [15], which would enable access to complex work and hands-on learning as groups of workers digitally collaborate to contribute to meaningful real-world projects. They would get to experience first hand what work in their intended field looks like, informing their career choices as they develop expertise. Project groups in this digital environment would naturally create distributed networks of nonexpert instructors [11]. The instructional methods of distributed apprenticeship detailed in [11] would serve a similar purpose to that of the communities of practice formed by individuals transitioning into engineering and tech. Networks of crowdworkers could support each other by serving as peer instructors and mentors for those less

experienced. Workers would be able to learn new skills and explore career choices together while collectively carrying out project goals. By working on projects together, workers would get to know each others' work and learning styles in a way that also supports professional networking during the job search process.

However, physical workplaces typically enhance social interactions. Online environments could provide opportunities for hands-on learning, and structures for mentorship and peer interaction, but is this enough to support long-term career-oriented relationships? How could crowdwork instead be designed to increase physical interaction among workers? Imagine a platform that enables crowdworkers to work together on projects that support local community organizations and causes. Organizations could post projects on the platform for teams of workers to contribute to through on-demand work. Workers would be assigned to teams with others located in the same general vicinity. Through this platform they could work together to find a common physical location to meet up and work collaboratively on their project assignment.

We are eager to discuss these ideas, and others, with the workshop organizers and participants as part of the bigger discussion on how physical spaces and online technologies influence each other in on-demand work. We are especially interested in the role of shared physical environments in supporting learning and career development within crowdwork platforms. The insights gathered from the workshop will help us better understand what steps need to be taken to strive towards a future of work in which crowdworkers, and other on-demand workers, are supported in their learning and career endeavors.

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