The Potential for Cooperative Piecework Labor Markets

Ali Alkhatib
Stanford University
Stanford, CA 94305, USA
ali.alkhatib@cs.stanford.edu

Abstract

In this extended abstract, I frame "gig" labor and information work as similar in nature to piecework of the late 19th century, offering historical context to an otherwise seemingly nascent form of labor. I further offer potential interventions to affect the frustrations workers face as they interact with contemporary systems, especially promoting the value of a worker cooperative, and highlighting research framing that work. Finally, I discuss very briefly my ongoing work with labor advocacy groups as partners.

Author Keywords

Qualitative methods; Labor markets

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous; See [http://acm.org/about/class/1998/]: for full list of ACM classifiers. This section is required.

Introduction

"Gig" labor appears to have dramatically reshaped labor markets across industries ranging driving–for–hire (e.g. Uber, Lyft), information work (e.g. Amazon Mechanical Turk (AMT), oDesk), and other industries (e.g. Handy). Researchers have identified frustration between workers and managers throughout these markets [11, 5].

Various efforts have been made to ameliorate the challenges workers face, but fundamentally these interventions have offered only limited respite [4, 12]. Workers on AMT — “Turkers” — continue to experience frustration, often precipitated or at least exacerbated by the very markets upon which they have come to rely.

Such markets are not necessarily novel; Jacob Riis documents the practice of piecework as a form of labor as early as the end of the 19th century [10]. Through his photography, we begin to see workers paid per piece of clothing completed — hence “piece” work. The argument employed at the time — that tracking the time that workers are actually working would be challenging, and that workers prefer to be able to interleave housework with piecework — carries surprising parallels today among those who defend Turking and other modern “gig” labor.

Thus, I juxtapose Amazon Mechanical Turk & Uber with the same framing by thinking about these forms of labor as subclasses of “piecework”, well–studied in the late 19th century by Riis through photography [10]. By contextualizing “gig” labor within and perhaps as another name for “piecework”, we begin to identify striking similarities between the workers who stitched strips of denim in their homes, and their 21st century counterparts who transcribe snippets of audio.

I approached this research ultimately asking how a market designed, operated, and ultimately owned by the workers would itself work. Intuitively, it would dramatically affect the conventional tension between business–owners and workers, as these groups would become conflated and the interactions become more transparently collaborative rather than adversarial.

Background

Computational social scientists have documented workers’ efforts to circumvent the systems imposed on them by market operators [5], and more directly researchers have observed the continuing effort to resist and critique markets for “gig" labor, in these cases in the context of online labor, where micro-work on Amazon Mechanical Turk (AMT) predates offline “gig” work companies such as Uber [4, 12].

Nevertheless, frustrations with these marketplaces persist, and the trends among emerging marketplaces seem to commoditize workers more and more aggressively. These “patches" of existing markets appear to have only marginal effects on the qualities of these markets; Uber drivers continue to resist the algorithmic matching while walking a fine line to avoid retribution from management, and some of the most frustrating requesters on AMT continue to antagonize Turkers.

Worker cooperatives — organizations owned by their workers — are not new; a substantial body of literature illustrates myriad approaches to guiding communities and assisting in collective action. Specifically, when we consider the role of insight into collective action, we refer to what Hardin describes as “directed at an ongoing problem" [2]. The implication here, he argues, is that the guidance on this form of collective action is dramatically more nuanced than “one-shot" collective action, demanding an “anthropological investigation of minute interrelationships". We might call this “ongoing" collective action. Economist Mancur Olson proposes, in part, that collective action depends on some large, generally inactive group in order to succeed [7].

Hardin posits that collective action is too commonplace for Olson’s thesis to hold; He suggests that the requirements for collective action which Olson theorizes may have changed — specifically, lowering the threshold — as a re-

sult of myriad factors outside of the scope of this research, except to point out that recent work in online collective action prompts further scrutiny of Olson's thesis and the critiques later researchers have levied. We suggest an alternative consideration: that much of the research in collective action in the space of HCI in fact corroborates the latent community requirement Olson recommends. Myriad collective action endeavors seem to succeed in part because they precipitate a collective of latent, willing participants in some form of community action [1, 12, 9].

A robust and growing body of research exploring collective action and movements enabled by the Internet adds to a body of knowledge previously uninformed by the tools the Internet affords. Where collective action research coordinated and executed offline describes challenges symptomatic of social structures, researchers of online communities can and do offer design guidance for the structure of online communities [3]. Substantial contributions deeply investigating online communities, such as Wikipedia, have lent system designers guidance in designing communities geared toward some ongoing collective action online [6, 8, 13]. In this last case, studies of Wikipedia and its users — known colloquially as "Wikipedians" — is especially instructive, as it addresses the distinction Olson makes regarding "one-shot" collective action and what we will call "ongoing" collective action.

Ongoing Work

In collaboration with the National Domestic Workers Alliance (NDWA) and their innovation arm the Fair Care Labs, I am continuing the work we started at the FUSE Labs at Microsoft Research in Redmond of exploring cooperative labor markets. The immediate hope is to produce a system that workers can adopt with minimal technical expertise, allowing them to offer freelance work on their own.

We're hoping to precipitate a community of workers with mutual interest in success and a willingness to cooperate together, allowing the formation of a loose cooperative of workers who collectively invest in community needs, share risks, and bargain for benefits like insurance.

My hope is that this work can open the door for a "labor protocol" — a standard enabling workers to run their own systems provided they conform to specifications describing how they should communicate with other systems. A standard protocol — especially one which allows for the transferral of data — will afford workers the ability to transfer their reputations, benefits, and ultimately their work to more preferable markets.

REFERENCES

1. Justin Cheng and Michael Bernstein. 2014. Catalyst: Triggering Collective Action with Thresholds. In *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '14)*. ACM, New York, NY, USA, 1211–1221. DOI: http://dx.doi.org/10.1145/2531602.2531635
2. Russell Hardin. 1982. *Collective action*. Resources for the Future.
3. Tad Hirsch. 2009. FEATURE: Learning from Activists: Lessons for Designers. *interactions* 16, 3 (May 2009), 31–33. DOI: http://dx.doi.org/10.1145/1516016.1516024
4. Lilly C. Irani and M. Six Silberman. 2013. Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13)*. ACM, New York, NY, USA, 611–620. DOI: http://dx.doi.org/10.1145/2470654.2470742
5. Min Kyung Lee, Daniel Kusbit, Evan Metsky, and Laura Dabbish. 2015. Working with Machines: The Impact of

Algorithmic and Data-Driven Management on Human Workers. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 1603–1612. DOI: http://dx.doi.org/10.1145/2702123.2702548

6. Oded Nov. 2007. What Motivates Wikipedians? *Commun. ACM* 50, 11 (November 2007), 60–64. DOI: http://dx.doi.org/10.1145/1297797.1297798

7. Mancur Olson. 2009. *The logic of collective action*. Vol. 124. Harvard University Press.

8. Katherine Panciera, Aaron Halfaker, and Loren Terveen. 2009. Wikipedians Are Born, Not Made: A Study of Power Editors on Wikipedia. In *Proceedings of the ACM 2009 International Conference on Supporting Group Work (GROUP '09)*. ACM, New York, NY, USA, 51–60. DOI: http://dx.doi.org/10.1145/1531674.1531682

9. Daniela Retelny, Sébastien Robaszkiewicz, Alexandra To, Walter S. Lasecki, Jay Patel, Negar Rahmati, Tulsee Doshi, Melissa Valentine, and Michael S. Bernstein. 2014. Expert Crowdsourcing with Flash Teams. In *Proceedings of the 27th Annual ACM Symposium on User Interface Software and Technology (UIST '14)*. ACM, New York, NY, USA, 75–85. DOI: http://dx.doi.org/10.1145/2642918.2647409

10. Jacob August Riis. 2004. *How the other half lives: Studies among the tenements of New York*. Barnes & Noble Publishing.

11. Joel Ross, Lilly Irani, M. Six Silberman, Andrew Zaldivar, and Bill Tomlinson. 2010. Who Are the Crowdworkers?: Shifting Demographics in Mechanical Turk. In *CHI '10 Extended Abstracts on Human Factors in Computing Systems (CHI EA '10)*. ACM, New York, NY, USA, 2863–2872. DOI: http://dx.doi.org/10.1145/1753846.1753873

12. Niloufar Salehi, Lilly C. Irani, Michael S. Bernstein, Ali Alkhatib, Eva Ogbe, Kristy Milland, and Clickhappier. 2015. We Are Dynamo: Overcoming Stalling and Friction in Collective Action for Crowd Workers. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 1621–1630. DOI: http://dx.doi.org/10.1145/2702123.2702508

13. Joachim Schroer and Guido Hertel. 2009. Voluntary Engagement in an Open Web-Based Encyclopedia: Wikipedians and Why They Do It. *Media Psychology* 12, 1 (2009), 96–120. DOI: http://dx.doi.org/10.1080/15213260802669466