The Relationships of Workers to Work, Peers, and Others

Crowd work's perspective. **The relationships of workers with their work, with their peers, and with others are complex and not especially well–understood.** Researchers have begun to appreciate the sociality of crowd workers in labor markets [10]. Still, the study of these communities is made more challenging by the limited access to workers on these sites of work inherent to digital spaces made without social affordances [24]. We can break this general body of work into the three groups we named earlier: workers' relationships 1) with *work*, 2) with *requesters*, and 3) with *other workers*. We'll look at workers' relationships with work itself, which we'll discover gives us insight into why people engage in crowd work in the first place.

[al2:

Crowd work's perspective.

1. with work: what is this to workers? is it social, as Jung et al. says? it seems like no according to Fort, Adda, and Cohen. a few have tried to understand this from a turker's view (see Martin et al. and bigham's blog post); generally trying to understand why people would do this work (Brewer, Morris, and Piper) [3, 16, 21, 7].
2. with requesters: most of what we know about crowd workers as they relate to requesters, or employers, comes from our recognition of the frustration workers have; Gray talks about the chaos of turking and the unilateral power requesters have; Irani and Silberman highlight the information asymmetry between workers and requesters on AMT. Salehi et al. point out the frustration workers experience trying to communicate collectively with requesters. some research frames this tension as the turker's problem (see Gadiraju et al.), but some has taken a more even–handed view (McInnis et al.) [14, 27, 8, 23].
3. with other workers: Salehi et al. specifically points out the "mega–drama" among workers; Irani and Irani and Silberman discuss the culture of crowd work and the study thereof. Gray et al. quantifies and maps this social network of turkers (this is different from the requesters topic because researchers like Irani, Gray, etc... aren't Turkers, but are as close to "cultural anthropologists doing ethnography" as we see on AMT, maybe online in general) [27, 12, 13, 10].

Piecework's perspective.

1. with work: how do workers relate to work? Riis documents this to some extent, but doesn't say that much about interviews or anything like that. a handful of sources suggest to know something about how workers relate to the work, like Clark, but this distinctly doesn't bring the worker's perspective into the discussion; it projects an etic view, rather than attempts to understand from an emic view. then again, this was a time before Boas and Malinowski, so maybe this is natural. [26, 4].
2. with requesters: [20, 1, 22, 15]?
3. with other workers: this is harder; crowd work research doesn't just benefit from digitally mediated technology allowing us to make relationship networks like Gray et al. did; we also benefit from what we consider modern Anthropology and ethnography, something which fundamentally didn't exist or was still in its infancy during piecework's life. Still, we can look at primary sources, like [19] by the president of the American Federation of Labor, to give us some hint of how they related to each other [19, 10]

What's different about crowd work.

Implications for crowd work research.

]

A number of ethical questions surrounding the increasing complexity of crowd work have arisen in recent years. Silberman, Irani, and Ross bring some of these issues to light — working for increasing amounts of time on tasks of growing complexity, only to discover that requesters are not willing to pay, for instance — but these and other dangers range an enormous landscape [28]. Kittur et al. list a few of the problems they identified in 2013 — motivation, feedback, reputation, quality control, to name a few — while others discuss challenges such as fostering collective action and the opportunity for learning and career advancement [18, 25, 27].

Some research already looks at research such as investing in workers, and informally, we know that this happens among industry requesters [11, 5]. AMT, meanwhile, offers requesters the ability to create tasks which are not just hidden from unqualified workers by default, but completely. Requesters have taken to using lists of worker IDs which reference workers who have proven their reliability, representing a sort of proto–organization of loosely connected workers.

Piecework's perspective. The rise of labor unions in the 20th century seems to have been precipitated by egregiously unjust conditions imposed on workers in factories and elsewhere [6]. Incidents broadly describing this dynamic can be found in research on AMT [14, 27]. If these are prototypical labor advocacy organizations of contemporary on–demand work, the next question we should look to is if — and indeed *how* — these institutions might face challenges in the future.

For insight on this, we return to 2009's study of labor unions, and identify that "Scholars who evaluate union governance by procedural criteria generally find that oligarchy tends to arise and persist even when democratic procedures are in place" [20]. Indeed, Levi et al. writes about the general perception that labor unions were either This perception already appears to be emerging in digitally mediated peer–governed organizations, as Keegan and Gergle and others have illustratively documented [2, 17]. If these organizations and others are to avoid the same fate that labor unions faced, they should take care to study this phenomenon and attempt to avoid it.

What's different about crowd work. **While online and distributed workers can be harder to find, other features make the study thereof rewarding for the substantively different ways that we can approach their study.** The longitudinal analysis of everyday discourse, for instance, is trivial in the study of online communities

Implications for crowd work research.

References

[1] John S Ahlquist and Margaret Levi. *In the interest of others: Organizations and social activism*. Princeton University Press, 2013.

[2] Ivan Beschastnikh, Travis Kriplean, and David W McDonald. "Wikipedian Self–Governance in Action: Motivating the Policy Lens." In: *ICWSM*. 2008.

[3] Robin Brewer, Meredith Ringel Morris, and Anne Marie Piper. ""Why Would Anybody Do This?": Understanding Older Adults' Motivations and Challenges in Crowd Work". In: *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. CHI '16. New York, NY, USA: ACM, 2016, pp. 2246–2257. ISBN: 978–1-4503–3362–7. DOI: 10.1145/2858036.2858198. URL: http://doi.acm.org/10.1145/2858036.2858198.

[4] William Alexander Graham Clark. *Cotton Textile Trade in Turkish Empire, Greece, and Italy*. Vol. 10. US Government Printing Office, 1908.

[5] Steven Dow et al. "Shepherding the Crowd Yields Better Work". In: *Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work*. CSCW '12. New York, NY, USA: ACM, 2012, pp. 1013–1022. ISBN: 978–1-4503–1086–4. DOI: 10.1145/2145204.2145355. URL: http://doi.acm.org/10.1145/2145204.2145355.

[6] Bernhard Ebbinghaus and Jelle Visser. "When institutions matter: Union growth and decline in Western Europe, 1950—1995". In: *European Sociological Review* 15.2 (1999), pp. 135–158.

[7] Karën Fort, Gilles Adda, and K Bretonnel Cohen. "Amazon mechanical turk: Gold mine or coal mine?" In: *Computational Linguistics* 37.2 (2011), pp. 413–420.

[8] Ujwal Gadiraju et al. "Understanding Malicious Behavior in Crowdsourcing Platforms: The Case of Online Surveys". In: *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. CHI '15. New York, NY, USA: ACM, 2015, pp. 1631–1640. ISBN: 978–1-4503–3145–6. DOI: 10.1145/2702123.2702443. URL: http://doi.acm.org/10.1145/2702123.2702443.

[9] Mary Gray. *Fixing the Chaotic Crowdworker Economy*. Aug. 2015. URL: http://www.bloombergview.com/articles/2015-08-12/fixing-the-chaotic-crowdworker-economy.

[10] Mary L. Gray et al. "The Crowd is a Collaborative Network". In: *Proceedings of the 19th ACM Conference on Computer–Supported Cooperative Work & Social Computing*. CSCW '16. New York, NY, USA: ACM, 2016, pp. 134–147. ISBN: 978–1-4503–3592–8. DOI: 10.1145/2818048.2819942. URL: http://doi.acm.org/10.1145/2818048.2819942.

[11] *Infoscout: Using Mechanical Turk to Mine Reciepts 7–23–2013*. July 2013. URL: https://www.youtube.com/watch?v=N3T6FyymsCw.

[12] Lilly Irani. "The cultural work of microwork". In: *New Media & Society* 17.5 (2015), pp. 720–739.

[13] Lilly C. Irani and M. Six Silberman. "Stories We Tell About Labor: Turkopticon and the Trouble with "Design"". In: *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. CHI '16. New York, NY, USA: ACM, 2016, pp. 4573–4586. ISBN: 978–1-4503–3362–7. DOI: 10.1145/2858036.2858592. URL: http://doi.acm.org/10.1145/2858036.2858592.

[14] Lilly C. Irani and M. Six Silberman. "Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk". In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. CHI '13. New York, NY, USA: ACM, 2013, pp. 611–620. ISBN: 978–1-4503–1899–0. DOI: 10.1145/2470654.2470742. URL: http://doi.acm.org/10.1145/2470654.2470742.

[15] Sanford M Jacoby. "Union–management cooperation in the United States: Lessons from the 1920s". In: *Industrial & Labor Relations Review* 37.1 (1983), pp. 18–33.

[16] Jiwon Jung et al. "Social or Financial Goals?: Comparative Analysis of User Behaviors in Couchsurfing and Airbnb". In: *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. CHI EA '16. Santa Clara, California, USA: ACM, 2016, pp. 2857–2863. ISBN: 978-1-4503-4082-3. DOI: 10.1145/2851581.2892328. URL: http://doi.acm.org/10.1145/2851581.2892328.

[17] Brian Keegan and Darren Gergle. "Egalitarians at the gate: One–sided gatekeeping practices in social media". In: *Proceedings of the 2010 ACM conference on Computer supported cooperative work*. ACM. 2010, pp. 131–134.

[18] Aniket Kittur et al. "The Future of Crowd Work". In: *Proceedings of the 2013 Conference on Computer Supported Cooperative Work*. CSCW '13. New York, NY, USA: ACM, 2013, pp. 1301–1318. ISBN: 978–1-4503–1331–5. DOI: 10.1145/2441776.2441923. URL: http://doi.acm.org/10.1145/2441776.2441923.

[19] American Federation of Labor. Railway Employees Dept and United States Railroad Labor Board. *The problem of piece work*. The Problem of Piece Work nos. 1-16. Bronson Canode Print. Co., 1921. URL: https://books.google.com/books?id=NN5NAQAAIAAJ.

[20] Margaret Levi et al. "Union democracy reexamined". In: *Politics & Society* 37.2 (2009), pp. 203–228.

[21] David Martin et al. "Being a turker". In: *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. ACM. 2014, pp. 224–235.

[22] Jamie K McCallum. *Global unions, local power: the new spirit of transnational labor organizing*. Cornell University Press, 2013.

[23] Brian McInnis et al. “Taking a HIT: Designing Around Rejection, Mistrust, Risk, and Workers’ Experiences in Amazon Mechanical Turk”. In: *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. CHI ’16. New York, NY, USA: ACM, 2016, pp. 2271–2282. ISBN: 978–1-4503–3362–7. DOI: 10.1145/2858036.2858539. URL: http://doi.acm.org/10.1145/2858036.2858539.

[24] Vincent Miller. *Understanding digital culture*. Sage Publications, 2011.

[25] Jeffrey V Nickerson. “Crowd work and collective learning”. In: *Technology–Enhanced Professional Learning: Routledge, Forthcoming* (2013).

[26] Jacob August Riis. *How the other half lives: Studies among the tenements of New York*. Penguin, 1901.

[27] Niloufar Salehi et al. “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. New York, NY, USA: ACM, 2015, pp. 1621–1630. ISBN: 978–1-4503–3145–6. DOI: 10.1145/2702123.2702508. URL: http://doi.acm.org/10.1145/2702123.2702508.

[28] M. Six Silberman, Lilly Irani, and Joel Ross. “Ethics and Tactics of Professional Crowdwork”. In: *XRDS* 17.2 (Dec. 2010), pp. 39–43. ISSN: 1528–4972. DOI: 10.1145/1869086.1869100. URL: http://doi.acm.org/10.1145/1869086.1869100.