

From Crowdwork to Ola Auto: Can Platform Economies Improve Livelihoods in Emerging Markets?

Jacki O'Neill
Microsoft Research



International Development Research Centre
Centre de recherches pour le développement international

5. From Crowdwork to Ola Auto: Can Platform Economies Improve Livelihoods in Emerging Markets?



Jacki O'Neill,
Microsoft Research

Independence and flexibility

The proliferation of ‘gig economy’ platforms enable new models of on demand labor, including 1) Digital labor, on crowdwork platforms such as Amazon Mechanical Turk (AMT) and Upwork; 2) Digitally-mediated physical labor, such as driving (e.g. Uber, Ola, Lyft), delivery work (e.g. Swiggy, FoodPanda), or household services (e.g. Dunzo, Housejoy). Whatever the activity, these apps connect people to work, services and goods in new ways. On the face of it, such platforms hold promise for emerging markets and underserved communities, bringing opportunities for income generation, more flexible employment and sharing resources. However, there is little evidence so far that they positively impact disadvantaged communities [2, 1]. In this essay, I examine whether and how these platforms impact livelihoods, from the perspective of the worker, drawing on examples from ethnographic studies of two different types of platform-based work: 1) Crowd-workers on AMT [3,6,7], and 2) auto-rickshaw drivers using Ola Auto [1].¹

I will focus on independence and flexibility, motivation and job satisfaction, and algorithmic management.

Workers in the platform economy are portrayed as independent freelancers or micro-entrepreneurs. So, what is it like being a non-contracted worker? It is not all bad: workers value the independence and the flexibility of their working lives, being able to start and finish work when they like, to take care of their children or other family members, and so on. But when we take a closer look at independence and flexibility in these markets, we see they leave a lot to be desired. For example, we may think of crowdwork as the ultimate flexible work. Howe (2006) in an original piece on crowd-working described it as a way of turning ‘spare cycles’ – those minutes or hours when you may be doing nothing - into productive time [4]. Indeed, a number of the Turkers (as AMT crowd-workers are known) in our study said they did crowdwork whenever they could find the time. In describing his working life, Ketan², is typical in saying “*I also try and look for work on MTurk [(AMT)] when I have some time*”, but then he goes on to say, “*but mostly I work at night because that’s when there are some jobs available*”. And we saw this pattern again and again, in the US [6,7] as well as India [3,7]. Indeed, when we looked a little closer, we found that because of the shortage of good jobs available, and their temporal distribution, it is usually the crowd-worker who has to be flexible to the rhythms of work on AMT, rather than being able

¹ Auto-rickshaws are three-wheel vehicles (also known as tuk-tuks), which carry passengers around town. Ola cabs is a transport company which, like Uber, has an ride-hailing app enabling passengers and drivers to connect for rides. Ola passengers can use the app to call either cabs or auto-rickshaws.

² All names have been changed.

to work as and when they wish. Indeed, many set up elaborate schemes to ensure they were available for good work when it came up.

Whilst crowd-workers have independence from individual work providers (or requesters as they are known on AMT), they have little control over the market. Amazon can, and does, suspend them without giving much in the way of useful explanation, and requesters can refuse their work without payment or reason.

Like Turkers, auto-drivers value their independence. Auto-rickshaw drivers are already independent workers, and this is often a key reason for choosing this profession. Drivers' biggest concern is the unpredictability of their income; will they earn enough today to meet their needs? Ola acts as a digital middleman, intervening in a previously independent marketplace. It sets incentives, controls the platform, network and algorithms, and mediates between drivers and their passengers. However, it does little to reduce the uncertainty of their day as Akash explains "*if you wait for Ola rides to come in when you are waiting at a particular location [...] you end up waiting all day without getting either normal or Ola passengers*". Ola therefore erodes the auto-rickshaw drivers' independence, whilst not doing much to make their income more predictable. Drivers maintained their independence largely because, they were not fully dependent on the system, and prioritized non-Ola passengers over Ola ones.

Platform providers may be thought of as pseudo-employers: taking all the control over the marketplace and who operates in it, but little of the responsibility. Current platform design limits both the independence and flexibility of workers in these labor markets, whilst raising issues of transparency and control.

Motivation and job satisfaction

Motivation and job satisfaction are a core part of getting a quality work product, however, it is common to forget these in more functional accounts of work, and when designing technology. To illustrate, we can compare crowd-work to Business Process Outsourcing (BPO). In an ethnographic study of 'form digitization' [8] – a very low skill, piece rate, data entry task - it quickly became apparent, that to achieve high quality work, at rapid turn-around times and minimum cost, the outsourcers workflow was sensitively orchestrated. 1) Workers are made accountable for their work, for example, supervisors will discuss the number and type of mistakes; 2) Targets are made realistic; it is no good asking a worker doing 16 forms to complete 50, but 24 might be achievable; 3)

Supervisors spend time demonstrating the fairness of the system and pay, to achieve worker buy-in; 4) Feedback and training are prioritized so workers can learn and improve. These strategies acknowledge the importance of worker motivation.

In contrast, micro-task crowdsourcing deliberately designs out the relationship between workers and organization and reduces the accountability on both sides. Requesters become less accountable for producing good tasks and paying fairly, and workers for producing good work. AMT, like most models of micro-task crowdwork, replaces complex social, organizational and financial motivators almost solely with monetary ones. Typically, at lower pay. When we look at the work from this perspective, is it any wonder that the results of crowdsourcing tasks are often poor. It is essential to remember this human fuzzy stuff, such as worker satisfaction, is not just a byproduct, but it is key to getting high quality work at all levels. That is, it is not just beneficial to the workers, but also to the employer or platform: motivated workers produce better work and that is good for everyone.

Algorithmic management

These platforms function as aggregators – bringing together many jobs and many workers. To be able to efficiently manage this at scale, they rely on algorithmic management, that is, management of the labor force through automated rules and procedures built into the platform. We examine the consequences of this on the workers taking two examples, 1) coordination work, and 2) evaluation.

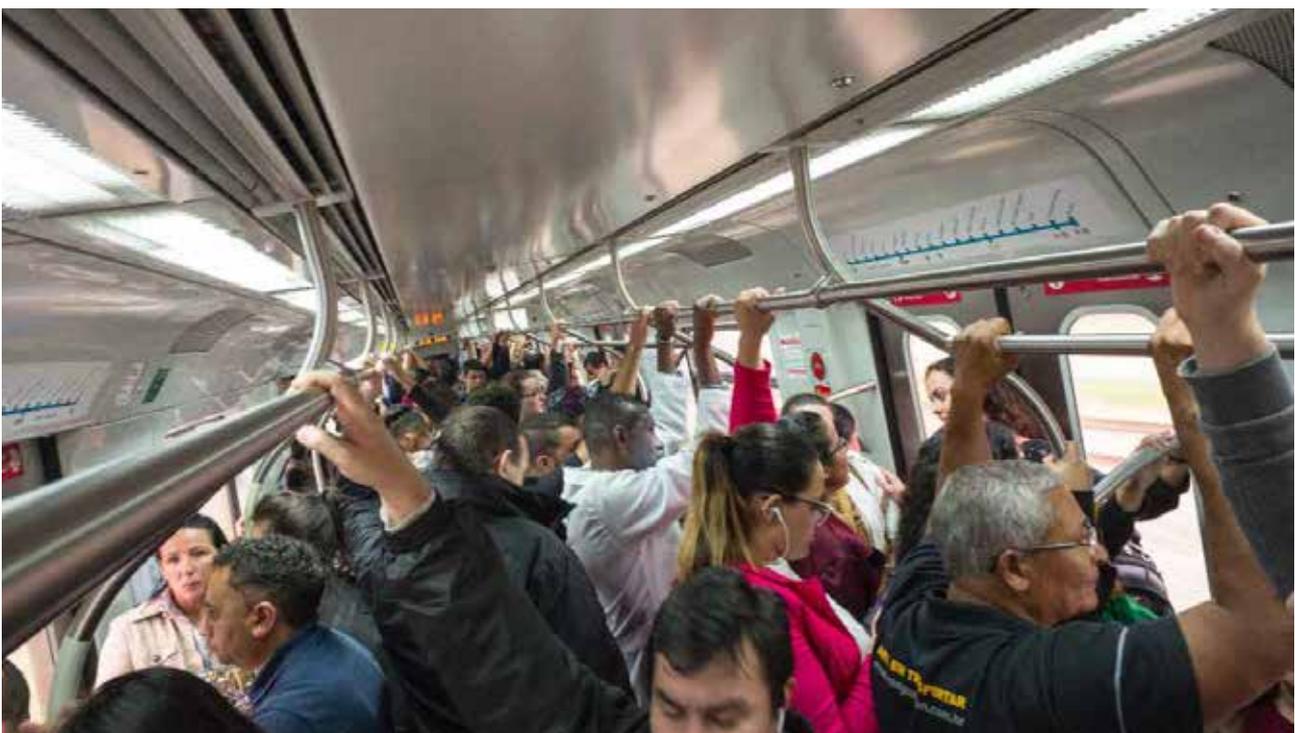
Coordination work is the work to organize people and groups, so they work harmoniously together. It is often hidden or not included in formal descriptions of work, but it has long been recognized that supporting this type of work is crucial for the success of collaborative systems. Digital systems rarely support easy coordination of complex work. Many, like AMT, puts the onus of choosing tasks on the worker. Unfortunately, this results in crowd-workers spending many unpaid hours looking for work. The alternative solution is to automate task assignment, like Uber and Ola do. However, automation is not as simple as it might seem, as we see if we compare Ola and Uber cabs to Ola Autos. Poor ride assignments can occur because of problems with detecting location (side of street, for example, or flyovers), traffic conditions, or because of Ola and Uber's business model. Poor ride assignments lead to extended waiting time for customers, but the consequences of this are different for cabs and autos because these rides have different contingencies:

Cabs are booked for longer journeys and passengers are more likely to wait, because if they have waited 15 minutes and the cab does not come they will have to wait *at least* the same if they book a new one. Auto-rickshaws are booked for shorter journeys and passengers will not wait long, as passengers are not wholly dependent on an app. Due to the high density of auto-rickshaws, they can usually just hop into any passing rickshaw if the auto does not turn up when predicted. In turn, Ola is not an autorickshaw drivers only source of passengers, as they can also pick up passengers from the street. This means that they are freer to reject rides, as Ola is not their only source of passengers. The consequences of assigning an auto that is 'too far' away (distance or time) from a passenger are graver than for a cab. Auto-rickshaw drivers often arrive to find the passenger gone, having wasted valuable fuel and time going to the pick-up point. Of course, the ride assignment algorithms could be programmed to take these contingencies into account, however algorithmically specifying *all* the contingencies in any case is complex, requiring a deep understanding of the lived work. If it is difficult to do well in even simple tasks like matching a rider to a nearby vehicle, imagine how much more complicated it can become for more sophisticated tasks.

The second example of algorithmic management is worker evaluation. Workers are often treated as nearly interchangeable, only distinguished by their reputation or ratings. Good ratings are crucial for workers to be able to access (good) work, but it is not clear how much their ratings or reputations are really in their hands. In Ola Auto's star system, Drivers are evaluated by Ola and passengers. However, the implementation is poor in two ways: 1) Drivers cannot understand why their ratings

change. As Nagraj says "*Sometimes in the afternoon, I have lesser stars and it increases in the evening. Some days when I have accepted lots of rides, I get lesser stars and some days when I barely have any passengers, I get rated high. I am not entirely sure why this happens.*" Drivers cannot easily associate a change in rating with a particular ride, because they do not see individual passengers' ratings and because updates often depend on when customers next open the app, leaving erratic intervals between rides and ratings. Finally, it is not entirely clear what Ola is rating them on: Do they rate cancellations? Time to pick up customers? Number of rides accepted in some period? Etc. 2) The rating system itself is unfair, as passengers may give a low score for late pick-up but if lateness is in fact due to a poor time estimation in the system, then that is not within the drivers' control. Similarly, drivers may have good reason for cancelling rides (it does no one any good if the customer must wait 30 mins, as discussed above). This leads us to ask who is the rating system for? Workers do not understand it so cannot act on it, even if they want to improve their performance. If it is not for the drivers then, presumably, it is for Ola to determine who are good or bad drivers and identify dissatisfied customers? However, the ambiguous and subjective nature of the ratings makes it impossible for drivers to determine what is required to be a good driver, and for Ola to determine who are good or bad drivers

Turning to AMT, reputation consists of a number of tasks approved, approval rate, qualifications given by individual requesters and AMT itself. Maintaining a good reputation is one of the foremost concerns of the Turkers and for good reason: it determines which jobs they can access, whether they are blocked from specific requesters or suspended from AMT altogether. Unfortunately,





they are given little information to understand why their work is rejected, or why they are blocked or suspended. Consequently, they are trying to manage their reputation ‘in the dark’, engaging in extra work to achieve or maintain good scores. Strategies include a) ‘Try before you buy’: e.g. completing a survey before accepting the job, the downside being the job may have vanished by the time they go to accept it; b) ‘Accept and return’, if the job turns out to be too difficult, but some workers are concerned that this may impact their reputation; c) Specializing on ‘within ability’ tasks, which whilst positive in developing particular expertise, is not a strategy for long-term career development. Overall it is not clear how much their reputation is really ‘in their hands’ since poorly designed hits can lead to errors. There is a tendency therefore to err on the side of caution given both opacity of AMT and requesters’ tendency to clamp down on errors. Current evaluation systems, being built for the benefit of the platforms and prioritizing what can be easily measured, are often unfair to the workers.

Conclusion

To conclude, we return to our original question, can platform economies improve livelihoods in emerging markets? They provide well-needed employment opportunities, lowering the barrier to entry, enabling people who could not easily access traditional jobs to find employment, and in the case of crowdwork can bring work into emerging markets. However, most of the current designs are flawed, and this impacts both the wellbeing of the worker *and* the quality of their work. This ineffectiveness is born of the confluence of a number of problematics. 1) They have been modelled as technologies not labor markets, and there is little recognition of limits of technology and the human impact

this has. 2) They ignore work practices, and design out rather than design for human factors, such as motivation, job satisfaction, fairness, agency and so on. Yet these are crucial. 3) The balance of power is skewed too far towards the platform.

Nonetheless, it does not have to be this way. There is nothing inherent in platform economies which says they have to be designed like this. There are many opportunities to be more equitable by design, for example by a) promoting greater independence and flexibility, b) designing fair algorithmic management, c) promoting worker agency and individuality rather than control and standardization. This will improve, not just conditions for the workers, but the quality of work produced which is good for worker, platform and customers alike.

References

- Ahmed, S. I., Bidwell, N. J., Zade, H., Muralidhar, S. H., Dhareshwar, A., Karachiwala, B., ... & O’Neill, J. (2016, May). Peer-to-peer in the workplace: A view from the road. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 5063-5075). ACM.
- Dillahunt, T. R., & Malone, A. R. (2015, April). The promise of the sharing economy among disadvantaged communities. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (pp. 2285-2294). ACM.
- Gupta, N., Martin, D., Hanrahan, B. V., & O’Neill, J. (2014, November). Turk-life in India. In *Proceedings of the 18th International Conference on Supporting Group Work* (pp. 1-11). ACM.
- Howe, J. (2006). Crowdsourcing: A definition. *Crowdsourcing: Tracking the rise of the amateur*. http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html
- Martin, D., Hanrahan, B. V., O’Neill, J., & Gupta, N. (2014, February). Being a turker. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing* (pp. 224-235). ACM.
- Martin, D., O’Neill, J., Gupta, N. Hanrahan, B.V., (2016). Turking in a Global Labour Market. *Journal of CSCW* 2016. 25 (1). Springer.
- O’Neill, J., & Martin, D. (2013, September). Relationship-based Business Process Crowdsourcing?. In *IFIP Conference on Human-Computer Interaction* (pp. 429-446). Springer, Berlin, Heidelberg.