

## INTRODUCTION

[al2: Components of a good intro (anything else to add?):

- state of the world
- what's the problem?
- why this problem is such a big deal(?)
- what's making this problem so persistent?
- what's the insight we bring?
- what we built/did
- what did we find?

]

1. on-demand work has grown significantly
2. task diversity is growing
3. new platforms continue to emerge
4. workers are struggling to signal quality:
  - (a) new workers — cold start problem
  - (b) old workers — too much noise
5. requesters have problems as well:
  - (a) did trump really quote Bane in his inaugural?
  - (b) omg like really
  - (c) requesters don't know whom to trust and have to bootstrap their own trustworthiness evaluations (e.g. qualifications exams, tentatively and very cautiously trusting coarse heuristic data)
  - (d) requesters tend to undervalue workers — at least at first — leading to a “market for lemons”
6. a few problems frustrate the design of interventions
  - (a) platforms have little incentive to facilitate external agents of intervention
  - (b) the stakeholders that platforms are more interested in seem to be those with the money (i.e. requesters) [al2: maybe too argumentative?]
  - (c) on-demand workers gravitate toward these platforms in large part because of the transience and ephemeral nature of the work (therefore, working against that will meet with resistance (and possibly attrition) from the very workers who constitute the platform today)
7. in “conventional” work, the problem of signaling a worker's quality was solved by using past worker performance as a proxy for future performance
8. on-demand work platforms have tried to do this with approval and rating systems, but they're generally too vague to be useful
9. conventional work résumés usually allow the worker to emphasize and omit information that's not relevant — **what if we facilitated that?**
10. we built a system that collected data from workers' profiles on online crowdsourcing platforms (first AMT, then others), and parsed that data to present more meaningful analytic data on things like
  - (a) the nature of the task; objective (i.e. factually based and evaluable) versus subjective (e.g. survey [al2: maybe also object labeling?])
  - (b) the type of requester; academic versus industry
  - (c) others
11. we also built a proof-of-concept qualifications management system abstracted from both our worker profile system and the work platform itself (to explore the potential to abstract

worker qualifications and credentials from the system itself, allowing other parties to specialize in this task)

12. we evaluated this system from two perspectives:
  - (a) did requesters who used this system find that the worker data better-informed their qualifications management and worker solicitation? in other words, was the output of the work more reliably accurate when they relied on the analytic data that we provided versus the coarse approval/rejection rating?
  - (b) did *workers* benefit from having high level data providing some insight into their work trends? did this lead them to better work more quickly? did they take a more active role in the management of their reputation / “worker profile” / résumé?
13. we also explored whether the externalized worker qualification system worked effectively, and considered the potential advantages and disadvantages of a set of decoupled systems rather than an integrated one (market, qualifications assessment system, payment platform, etc...).

[al2: On-demand work has so far been a compelling way to arrange work and imagine workers; the fleeting nature of work seems to appeal greatly to workers, and the looser expectations of responsibility toward workers appeals to employers and clients. But in the exchange we've made for more fleeting relationships, we've instantiated — or at least added fuel to — another class of challenges and problems. Among them remains the challenge of ensuring that workers — first crowd workers, and later gig workers — both 1) know the skills necessary to do the immediate task and 2) will continue to produce work at the desired level of quality. By far, two approaches have taken hold: First, qualification exams (e.g. Amazon Mechanical Turk and Upwork), which ask workers to take a test of some sort to demonstrate that they both understand the task in question *have the ability* to do the task. Second, relying on outside certification bodies (e.g. Uber, [al2: do we know of others that match this profile?]), which assumes that outside bodies — in Uber's case, local DMVs and similar bodies — have sufficiently evaluated a person's ability to do the tasks necessary.

Other approaches exist, but have not (yet) garnered the interest of on-demand firms in general.]

[al2: I want citations on **worker qualifications** and on **worker effort and management**. I think Ranjay's paper on looking forward etc... at CSCW 2017 would be right here. When do bibtex things come out?]