

Vitae: Digital Hiring Halls for On-Demand Workers

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Stanford CS & CASBS

Introduction

Some useful definitions

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Kittur et al. (2013)

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On-demand work Crowd work and gig work, collectively

**On-demand work is a modern instantiation of a
much older phenomenon — piecework.**

**The historical arc of piecework can shed light on persistent questions in this
ongoing phenomenon of on-demand work.**

Old Wine in New Bottles

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Piecework Payment for *output* rather than for *time*

Payment for individual gigs

Crowd work



upwork

UBER

Gig Work



Payment for individual gigs



Crowd work

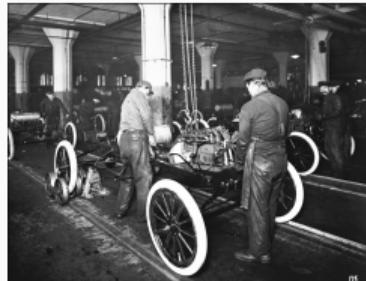


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The answers to these questions are critical to understanding the future of on-demand work

These kinds of questions have been asked before.

History can help us answer them today.

A review of on-demand work

Ongoing Threads in Crowdsourcing Research

Complexity

Hahn et al. (2016), Kim and Monroy-Hernández (2016),
Kittur et al. (2011), Nebeling et al. (2016), Suzuki et al.
(2016), Yu, Kittur, and Kraut (2016), and Yuan et al. (2016)

Decomposition

Celis et al. (2016), Chang, Kittur, and Hahn (2016), Law et al.
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Workers

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What we can learn from history

What Does Piecework Say?

- Build complexity *into* processes
- Major challenges with **flexibility**
- Emphasis on task **specialization**

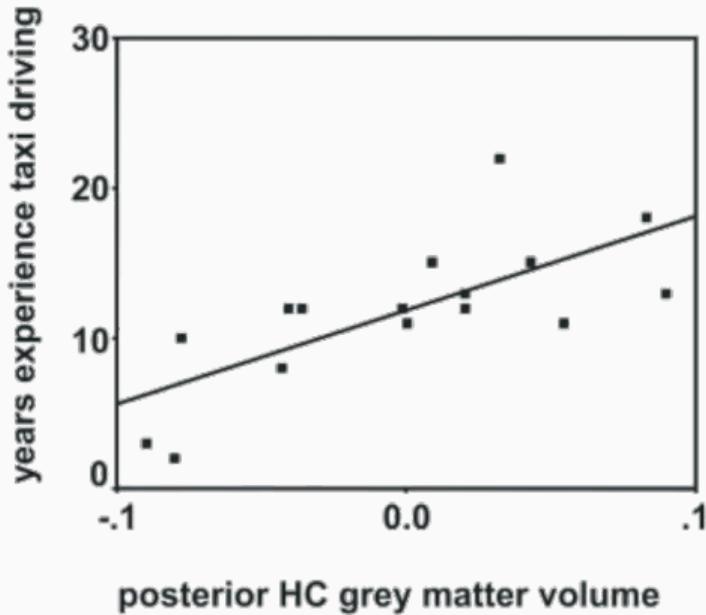
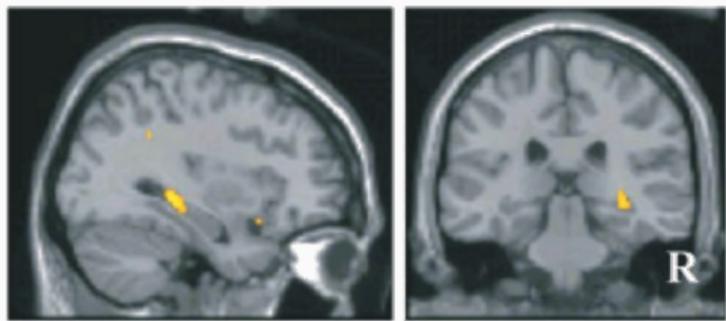
An Example: Enhanced Cognition

Enhanced Cognition

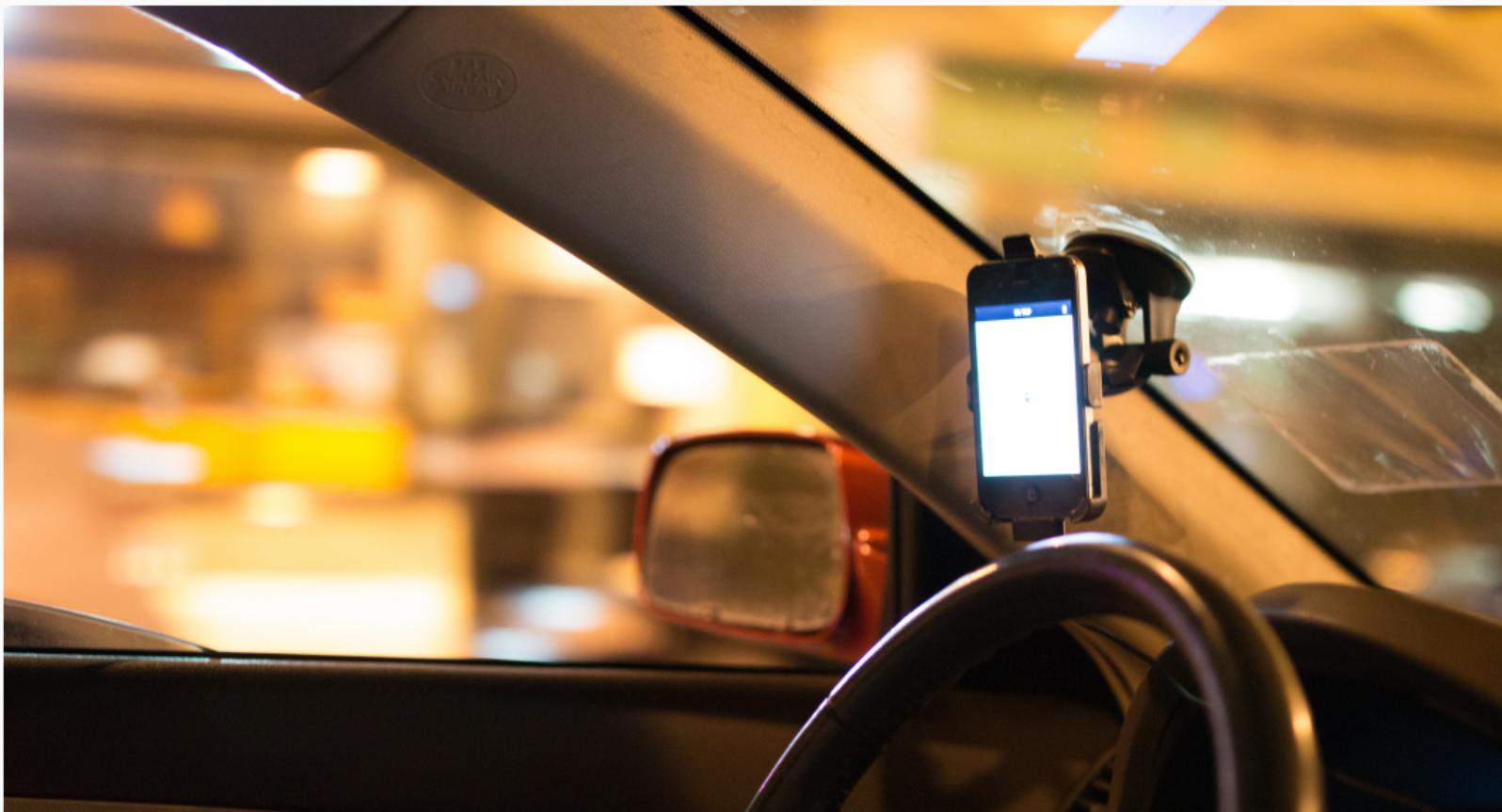


Enhanced Cognition

A



Enhanced Cognition



Takeaways

- We make stronger assumptions about workers' abilities thanks to technology
- Evaluation remains difficult, but we're trying to find stopgap solutions through decomposition
- We're still not solving the problems of inherently subjectively judged work

(Re)framing the question

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Persistent issues in on-demand work

- People have varied work histories
- How can we be confident that on-demand workers are qualified?
- Work histories are often reduced to 5-star or binary ratings
- Workers' histories not necessarily reliable

Hiring Halls

Hiring halls historically ameliorated these issues:

1. Varied, transient work histories offset by relatively stable organizations
2. These organizations traded on their collective reputations
3. Hiring halls consolidated negotiation between employers and workers

Digital Hiring Halls

Digital hiring halls can be even more impactful

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2. Eliminate the need for workers to get work exclusively from one source
3. Facilitate collective governance for on-demand knowledge workers

Vitae

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- A server, storing aggregated data and mediating discussions
- An embedded script, enforcing worker group requirements

I'd like to get a sense for the kinds of tasks you're doing on Mechanical Turk, what kinds of skills you have (whether they're recognized on AMT or not), etc...

To be clear, there are no wrong answers.

We can't determine eligibility during HIT preview.

This task uses an external qualification system to make sure you're eligible.

You need to be in the [Stanford HCI Group](#) community to be eligible.

In order to see if you're eligible for this task, you'll need to accept the HIT so we can run a check on your Worker ID.

You can check your eligibility here by entering your worker ID

[check my eligibility](#)

I'd like to get a sense for the kinds of tasks you're doing on Mechanical Turk, what kinds of skills you have (whether they're recognized on AMT or not), etc...

To be clear, there are no wrong answers.

Ineligible for this task

You're **not** eligible for this task. To be eligible, you must be in the [Stanford HCI Group](#) community.

If you think this is an error, please [contact the owner of Stanford HCI Group](#). When they add you to the group, you'll automatically be eligible to do all tasks with this requirement.

Online Courses

Have you taken any courses online? Where? What classes did you take?

✓ You're eligible for this task. Happy Turking!

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To be clear, there are no wrong answers.

Online Courses

Have you taken any courses online? Where? What classes did you take?

For example

- Codecademy (How to sign up for sites)

Evaluating Vitae

1. Does Vitae facilitate “conventional” work?

Work like image labeling, transcription, etc...which we can evaluate quantitatively by comparing to “control” settings

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2. Does Vitae allow workers to form communities representing niche and specialized skills?

Evaluating this will take more time and require longitudinal, ethnographic study

On the horizon

Timeline

- Already starting with small cohorts of workers at
<https://vitae.online>

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- Expanding over the next several months with more grassroots groups

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- Expanding over the next several months with more grassroots groups
- Input from requesters such as the Institute for Research in the Social Sciences

Questions, Discussion, Thoughts

Thanks to mediaX for your support and for your time today.

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