

# Examining Crowd Work and Gig Work Through The Historical Lens of Piecework

---

Ali Alkhatib, Margaret Levi, Michael Bernstein  
`ali.alkhatib@cs.stanford.edu` || `@_aliaalkhatib`

February 6, 2017

Stanford University

# A New Form of Work: On-Demand Labor

- Crowdsourcing



# A New Form of Work: On-Demand Labor

- Crowdsourcing



- Gig work

UBER



# Growing Number of Questions

- What are the complexity limits of on-demand work?

# Growing Number of Questions

- What are the complexity limits of on-demand work?
- How far can work be decomposed into smaller microtasks?

# Growing Number of Questions

- What are the complexity limits of on-demand work?
- How far can work be decomposed into smaller microtasks?
- What will work and the place of work look like for workers?

## Piecework as a lens to understand on-demand work

---

## A (*quick*) Primer on Piecework

- Payment made for *output*, rather than for *time*



## An Example: Pieceworkers at the turn of the 20th century



## One Question: The Limits on Task Decomposition

- Piecework: Lack of instrumentation limited task decomposition

# One Question: The Limits on Task Decomposition

- Piecework: Lack of instrumentation limited task decomposition
- Today? Tools and technology can track every move workers make

# One Question: The Limits on Task Decomposition

- Piecework: Lack of instrumentation limited task decomposition
- Today? Tools and technology can track every move workers make
- We've hit upon what seems to be an atomic limit on decomposition — cognitive switching between tasks is becoming the main barrier

- If on-demand labor follows the same trajectory as piecework, what can we expect?

# Future Directions

- If on-demand labor follows the same trajectory as piecework, what can we expect?
- If we can design the entire platforms of labor in ways we couldn't imagine a century ago, what can we do to affect different outcomes?

name: Ali Alkhatib

email: [ali.alkhatib@cs.stanford.edu](mailto:ali.alkhatib@cs.stanford.edu)

twitter: [@\\_alialkhatib](https://twitter.com/_alialkhatib)