



Before We Get Started...

1>returnable<1>1>returnable

Crowd work Digitally mediated **information work** (e.g.
Amazon Mechanical Turk, UpWork)

Kittur et al. ([2013](#))



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2>returnable<2>

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Gig work Digitally mediated (often **physically embodied**)
one-off jobs, such as *driving for hire*, *courier services*, and *administrative support*
Friedman ([2014](#)) and Parigi and Ma ([2016](#))



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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.



4>returnable<4>

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Old Wine in New Bottles



5>returnable<5>

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



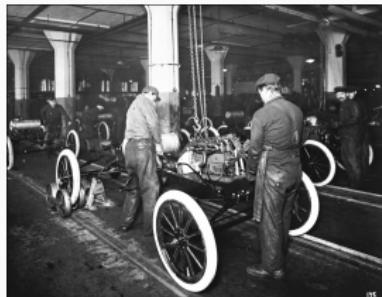
What is piecework?

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

Textiles



Automobiles



Metalwork





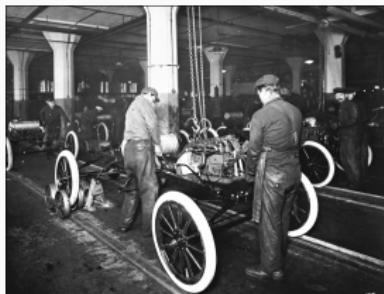
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Crowd work



Gig Work

U B E R

What will be the future of work?

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How will **technology** affect the complexity of the work that on-demand workers do?

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



This question — and others like it — has been asked before.

History can help us answer them today.

We'll reach into the history of **piecework** — of human computers, match stick makers, and metalworkers — and show how the **history** of their work can inform answers to questions about the **future** of digital work.

Introduction



We hope to provide:

- A useful ontological lens for making sense of on-demand work as a resurgence of **piecework**.
- A method for making sense of contemporary phenomena through **historical analysis**.

Comparative Historical Analysis



- Historical analysis isn't new
 - In general
 - Rosenberg ([1994](#), [1982](#))
 - In HCI
 - Bødker ([1993](#)) and Wyche, Sengers, and Grinter ([2006](#))
- Still, it's an underutilized method
 - Provide some basic framing for *ostensibly* new phenomena
 - *Explicate* our theoretical grounding
 - Flesh out *differences* and their implications

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