1>returnable<1>1>returnable

- Crowd work: digitally mediated *information work* (for example, work done on Amazon Mechanical Turk, UpWork, or 99designs) [10]

2>returnable<2>
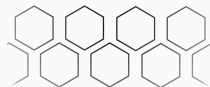
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- On–demand work: crowd work and gig work, collectively

Tasks

1. **Complexity**
   Suzuki et al. [21], Kim and
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   Yu, Kittur, and Kraut [23], Nebeling et al.
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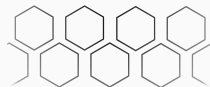
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Decomposition

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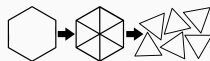   Yu, Kittur, and Kraut [23], Nebeling et al.
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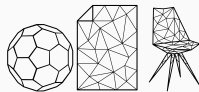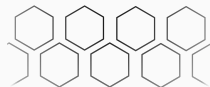   [3], and Newell and Ruths [16]

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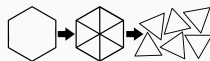   Yu, Kittur, and Kraut [23], Nebeling et al.
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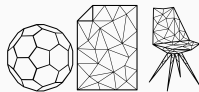   [3], and Newell and Ruths [16]

Decomposition

3. **Relationships**
   Irani and Silberman [8, 7], Gray et al.
   [5], McInnis et al. [14], Salehi et al. [20],
   and Lee et al. [12]

What will be the future of work?

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

What are the limits of complexity in on–demand work?

How can we reach those limits?

These questions have all 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.

4>returnable<4>

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- On-demand work: crowd work and gig work, collectively
- Piecework: Payment for *output* rather than for *time*

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 [18, 19]
  - In HCI
    Wyche, Sengers, and Grinter [22] and Bødker [1]
- 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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