Comparing microworkers’ and online freelancers’ learning practices

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## Types of crowdwork

<table>
<thead>
<tr>
<th>Low Complexity</th>
<th>Medium Complexity</th>
<th>High Complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign-up websites</td>
<td>Post Tweets</td>
<td>Web &amp; Software Development</td>
</tr>
<tr>
<td>Search + Click</td>
<td>Post comments on Blogs/Websites/Forums</td>
<td>Network &amp; Information Systems</td>
</tr>
<tr>
<td>Bookmark Webpages</td>
<td>Write a Review</td>
<td>Engineering &amp; Science</td>
</tr>
<tr>
<td>Watch Videos</td>
<td>Data Entry &amp; Administrative Support</td>
<td>Business, Accounting, HR &amp; Legal</td>
</tr>
<tr>
<td>Vote</td>
<td>Translation &amp; Languages</td>
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<tr>
<td>Download app + Install</td>
<td>Write an Article</td>
<td></td>
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<tr>
<td>Data Entry &amp; Administrative Support</td>
<td>Sales &amp; Marketing</td>
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<tr>
<td></td>
<td>Design &amp; Multimedia</td>
<td></td>
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<tr>
<td></td>
<td>Writing &amp; Content</td>
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<tr>
<td></td>
<td>Product Sourcing and Manufacturing</td>
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<tr>
<td></td>
<td>Customer Service</td>
<td></td>
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<td>◆ Low pay</td>
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<td>◆ Algorithmically-supervised</td>
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### Types of Crowdwork

#### Microwork
- Short units of work – secs/mins
- Low-skill tasks
- Low pay
- Anonymous
- Algorithmically-supervised

#### Online Freelancing
- Larger units of work – hrs/weeks
- High skill tasks
- Higher pay
- Transparent profiles
- Supervised by humans

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This project examines how people within crowdwork platforms learn and develop skills in the context of everyday work. The focus is on informal workplace learning and self-regulated by crowdworkers, for example engaging in challenging tasks, professional literature, exchanging knowledge in professional fora, or help-seeking.

In this highly distributed and fragmented type of work where workers may not have formalised learning support and professional development opportunities available within traditional employment (e.g. training or access to experienced colleagues) how do crowdworkers organist their learning? What strategies do these crowdworkers use to organise and managing their learning? What strategies do these crowdworkers use to organise and managing their learning? What strategies do these crowdworkers use to organise and managing their learning? What strategies do these crowdworkers use to organise and managing their learning? What strategies do these crowdworkers use to organise and managing their learning? What strategies do these crowdworkers use to organise and managing their learning?

Timeline: Oct 2016 – Mar 2018

Funder: Alexander von Humboldt Stiftung

Funding: Senior Fellowship Award

Collaborators: Work Sociology @ University of Frankfurt (Heather Hofmeister)

Key outputs: WLCQ survey instrument; Typology of learning activities and learning strategies in crowdwork;
Methodology

Workplace Learning in Crowdwork Questionnaire (WLCQ)

- Demographic questions (14 items)
- Workplace Learning Activities – 14 items, based on a typology synthesised from WPL literature (Fontana et al, 2015)
- SRL Strategies – 34 items, based on Zimmerman’s 3-phase model of SRL (Zimmerman, 2005)
- Nature of Work Tasks – 15 items (from Davenport’s typology of knowledge work and Work Design Questionnaire by Morgeson & Humphrey)


Survey sample

**MICROWORKERS**

- N=260 **FigureEight**
- **Top countries:**
  - Venezuela – 19%
  - Serbia – 8%
  - India -7%
  - Russia & Indonesia – 5%
- **Top task categories:**
  - Data categorisation – 45%
  - Transcription – 43%
  - Image annotation – 42%

**ONLINE FREELANCERS**

- N=35 **Upwork**
- **Top countries:**
  - USA – 20%
  - Serbia – 17%
  - India – 14%
  - Philippines – 11%
- **Top task categories:**
  - Admin – 51%
  - Writing – 43%
  - Sales/marketing – 31%
Workplace learning activities
<table>
<thead>
<tr>
<th>SRL strategies: Planning</th>
<th>OF</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting own performance standards</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Setting short-term learning goals</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Setting long-term learning goals</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Devising learning plan</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Using different learning strategies</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Modifying learning strategies</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Changing learning goals</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Identifying learning gap before task</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Adapting learning strategies to tasks</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Ability to use learning in future work</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Important to learn new things in work</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Preference for learning-intensive tasks</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Preference for tasks arousing curiosity</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
SRL strategies: Implementation

- Monitoring progress to learning goals
- Focusing on thorough problem analysis
- Blocking time for learning
- Collecting info from different sources
- Applying lessons learned
- Relating new learning to extant knowledge
- Developing own ideas from resources
- Reaching out to others for help
- Sharing own learning with peers
- Making private notes on learning
- Publically sharing learnings
SRL strategies: Reflection

- Meeting learning goals set
- Reflecting on better ways to have done tasks
- Reflecting on quality of learning
- Considering how learning from crowdwork fits own professional development
- Reflecting on how own learning could be of interest to peers
- Understanding how learning impacts other platform work

Graph showing the percentage of participants following SRL strategies, with 'OF' and 'MW' representing different groups.
Differences between MWs & OFs

Moderate or moderately strong differences:

- Online freelancers more likely to report undertaking free online courses or use free online tutorials and other online resources to support their learning.
- Online freelancers more likely to learn by receiving feedback on their tasks from others.
Weak or very weak associations (marginally acceptable):

- Online freelancers more likely to:
  - collaborate with others
  - self-study professional literature
  - make notes or diagrams to organise their learning

- Microworkers more likely to report making private notes about what they have learned
Conclusions

- Both types of crowdwork appear learning-intensive
- Both types of workers appear self-efficacious, intrinsically motivated, learning-oriented and self-regulated
- In both types of crowdwork workers undertake social rather than only individual learning activities and strategies
- Whilst some crowdwork tasks – especially in microwork platforms - may not require advanced skills to complete, it is misleading to suggest that workers performing these tasks are themselves low-skilled and have no opportunities to develop skills when working on platforms
Next steps

- Follow-up study funded by Cedefop: November 2019-July 2020
- Comparing CrowdLearn survey data on OFs with extant & new data on MWs
  - RQ1. What are the similarities and differences in the scope and frequency of use of WLA and SRL strategies between online freelancers and microworkers?
  - RQ2. What if any correlations are there between the complexity and interdependence of crowdwork tasks as perceived by the workers and the scope, frequency and nature of learning processes workers undertake?
  - RQ3. What if any correlations are there between the differential primary motivations that lead individuals to undertake crowdwork and the scope, frequency and nature of learning processes workers undertake?
  - RQ4. What if any correlations are there between the intensity of workers’ engagement in crowdwork and the scope, frequency and nature of learning processes workers undertake?
  - RQ5. What if any similarities and differences are there in the scope and frequency of use of WLAs and SRL strategies between microworkers and online freelancers who report low, medium and high levels of self-regulated learning behaviour?
  - RQ6. What hypotheses could we formulated about the possible causes underpinning these potential correlations, to be explored in future research?
References
