
Power Struggles in the Digital Economy: Platforms, Workers, and Markets

Airi Lampinen

Stockholm University
Kista, Sweden
airi@dsv.su.se

Christoph Lutz

Nordic Centre for Internet and Society
BI Norwegian Business School
Oslo, Norway
christoph.lutz@bi.no

Gemma Newlands

Nordic Centre for Internet and Society
BI Norwegian Business School
Oslo, Norway
gemma.e.newlands@bi.no

Ann Light

University of Sussex
United Kingdom
ann.light@gmail.com

Nicole Immorlica

Microsoft Research
Boston, USA
nicimm@gmail.com

Abstract

This workshop addresses the changing nature of work and the important role of exchange platforms as both intermediaries and managers. It aims to bring together interdisciplinary and critical scholars working on the power dynamics of digitally mediated labor. By doing so, the workshop provides a forum for discussing current and future research opportunities on the digital economy, including the sharing economy, the platform economy, the gig economy, and other adjacent framings. Of particular interest to this workshop is the intersection between worker and provider subjectivities and the roles platforms take in managing work through algorithms and software. Our one-day workshop accommodates up to 20 participants.

Author Keywords

Digital economy; power; sharing economy; gig economy; on-demand economy; peer-to-peer; crowd work; crowdsourcing; algorithmic management.

CCS Concepts

• Human-centered computing~Collaborative and social computing.

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Introduction

Recent years have seen the rapid introduction of exchange platforms as sites for work and entrepreneurial activity. Examples range from mostly digital platforms where workers perform tasks of varying complexity and difficulty (e.g., Amazon Mechanical Turk, Upwork, 99designs, Topcoder) to matching services that manage offline or augmented work by connecting freelancers with consumers of such services (e.g., Deliveroo, Uber, Taskrabbit, Handy). In addition, asset-sharing services such as Airbnb and BlaBlaCar have become big players in the tourism and transportation industries. Following Sundararajan's [18] inclusive conceptualization, we are interested in both labor- and asset-oriented platforms, noting that both offer new forms of income generation.

Research from a range of academic disciplines has begun to look into these platforms. In addition to using such platforms themselves, such as for survey recruitment and interview transcription, scholars have investigated the lived experiences of these workers and asset-sharers [19]. Current findings indicate that, while some platform workers appreciate the flexibility promised by these new forms of work, workers nevertheless face substantial risks, such as low payment, a lack of protection and insurance, unpredictability of demand, stress, and the difficulty of collective organization. In short, a lot of the burning questions around digitally mediated labor are tied to power aspects and asymmetries [6, 13, 20, 22].

CSCW scholars are among the core communities to investigate the power dynamics of digitally mediated labor. In an overview of the literature on the sharing economy – broadly defined to include more work-related facets, too – in computing research, Dillahunt and colleagues [3] identified 112 articles between 2008 and

2017. Half of these studies were published in HCI venues and addressed a diverse set of topics, from socio-technical design, to motivations, working conditions, user experience, trust, and privacy. However, important research gaps remain. Under-explored areas include environmental sustainability, the coverage of Non-Western, and specifically non-US, contexts, and policy implications. Moreover, we identify a relative scarcity of efforts to design and imagine alternatives to the status quo of how work and markets are organized with networked platforms.

There have been efforts to build community, foster collaboration, and work on a shared vocabulary around these topics within CSCW and HCI, including but not limited to a CSCW 2016 workshop on the future of platforms as sites of work, collaboration and trust [7], panels on the sharing economy at CSCW 2015 [8] and CSCW 2016 [2] and a CHI 2015 workshop on designing for sharing in local communities [12]. In line with these prior efforts, and building upon them, our workshop provides an opportunity for community building and focused in-depth discussions of future research and design directions. The workshop is structured around creating a shared agenda for research and other action.

Workshop theme: Power struggles in the digital economy

The central theme of the workshop is how research on digitally mediated labor can address the ongoing power asymmetries and power struggles between workers, those requesting labor, and the platforms that enable, co-ordinate, or manage work processes and labor arrangements. Important topics for discussion include power asymmetries, algorithmic management, collective organization, discourses and narratives (how workers

and platforms are portrayed, both by themselves and by each other), market design, and strategies of resistance and counter-resistance. We explore how this domain of research can shift forward conceptual and theoretical efforts within CSCW, and how we might more effectively utilize prior work, also from outside of CSCW, to inform our research.

Platforms

Platforms, as sites for social and economic activity, have been at the forefront of HCI and CSCW research in recent years. While the very notion 'platform' is contested and complex [4, 5], we deem it productive for analyzing power imbalances and shifts of digitally-mediated work. Recent work in the area has examined how ride-hailing platforms, such as Uber, manage workers algorithmically through task allocation, work organization, and feedback mechanisms [10]. The implications of such management practices on drivers in terms of emotional labor, have been studied within HCI and CSCW [14, 19], and beyond [1, 16].

Workers

Studying workers is a core concern for HCI and CSCW, in part due to the increasing number of technologies that support a variety of exchange over distance, with the help of computer-mediated communication [15]. We propose a broad understanding of workers for the workshop, not only as those who perform physical and mental labor but also those who act in a (micro-)entrepreneurial capacity, for example as managers of an Airbnb property or social enterprises using crowdfunding [11]. A particular focus is on practices, especially as these relate to power struggles and the relationship to not only to those requesting work but also

to the platforms – both as intermediaries and algorithmic managers.

Markets

Lastly, the workshop will focus on markets, approaching them as human artifacts and, as such, objects of design and critical scrutiny. Platforms are often characterized as markets, but the two concepts emphasize different aspects of what is at play. As Lampinen and Brown [9] have noted, the increasing emphasis HCI scholars have placed on crowdsourcing, crowdfunding and peer-to-peer exchange brings the field's focus on interfaces and the collaborative uses of technology together with a range of socioeconomic concerns. This urges us to consider what CSCW might gain from working more closely with economics and, in particular, market design [17, 21], a branch of economics that has been developed to work out how to conceive, operate and evaluate markets – and to fix those which are failing. Since markets are often instantiated in a technological form, our community is well positioned to take an active role in designing markets and intervening critically where they do not work fairly or effectively.

Goals for the workshop

The goals for this workshop include:

- Bring together researchers within (and where possible beyond) the CSCW community who study digitally mediated labor
- Work towards a shared agenda for research and other action; working through questions regarding how exchange platforms as spaces and connectors affect broader CSCW concerns and what roles design can play in creating, affirming, or removing power asymmetries

- Encourage interaction and collaboration not just between researchers, but also with practitioners and activists working on related issues
- Support and scaffold collaborative efforts that exceed the short duration of the workshop
- Facilitate the formation of this sub-community in CSCW and HCI, and discuss possibilities for a lightweight collaborative infrastructure to sustain it (e.g., a listserv or a wiki page for resources)

Workshop Activities

Our one-day workshop will accommodate up to 20 participants from academia, industry, the public sector, and civic organizations. The workshop will consist of diverse activities, with an emphasis on in-depth conversations and community building. The workshop will be structured in the following way:

- **Introductions (45 min)**
The organizers open the workshop by introducing the agenda and goals for the day. They then facilitate a lightning round of talks, giving each participant a moment to introduce themselves, their interest in the topic, and thoughts stemming from their position paper.
- **Fishbowl Discussion (45 min)**
Organizers introduce the fishbowl format ([https://en.wikipedia.org/wiki/Fishbowl_\(conversation\)](https://en.wikipedia.org/wiki/Fishbowl_(conversation))) and then kick-off conversation with the three focal concepts (platforms, workers, markets). This participatory conversation format will invite all participants to dive deeper into the themes and identify shared interests. The organizers will take shared notes of the conversation to generate material to be worked on in break-out groups.
- **Break (30 minutes)**
- **Keynote (60 min)**

Nicole Immorlica from Microsoft Research will give a keynote address followed by a Q & A session. Nicole's research on market design will invite the workshop participants to consider the design(s) of the digital economy from an economic perspective, which we expect will be new and thought-provoking to the participants.

- **Lunch (90 min)**
- **Walk-and-Talk in Break-Out Groups (45 min)**
Building on the results from the first half of the day, participants will split into groups of 3-4 people based on shared interests. The groups are tasked to explore how their own research interests and state-of-the-art digital economy research relates to one of the focal concepts of the workshop. The groups are encouraged to carry out their discussion while taking a walk. The goal is to identify key ideas and questions for the shared agenda.
- **Documenting Discussions (45 min)**
Here, break-out groups have the time to document their walk-and-talk discussion.
- **Break (30 min)**
- **Presentations and Feedback (30 min)**
Each break-out group presents their outcomes to the whole group and get feedback. The outcomes will be compiled as a draft of the shared agenda.
- **Next Step and Closing (45 min)**
The workshop will conclude with a group discussion recapping what has been achieved during the day and mapping next steps and opportunities for further collaboration.
- **Workshop Happy Hour**
The program will be followed by an informal happy hour to continue the discussions and mingle more freely. To broaden the conversation, we will make

this meet-up open for the local (research) community, also beyond those attending CSCW.

Organizers

Airi Lampinen is an Associate Senior Lecturer in Human-Computer Interaction at Stockholm University in Sweden. She holds a PhD in social psychology from University of Helsinki, Finland. Airi has studied interpersonal dynamics in peer-to-peer exchange extensively. Her ongoing research focuses on peer-to-peer marketplace founders, exploring opportunities for peer support and collaboration.

Christoph Lutz is an Assistant Professor at the Nordic Centre for Internet and Society, BI Norwegian Business School (Oslo, Norway). He has a PhD from the University of St. Gallen, Switzerland. Christoph's research interests include online participation, privacy, serendipity, the sharing economy, and social robots. Recent publications address questions of agency and control in digitally mediated environments, such as home- and ride-sharing platforms and mobile dating platforms.

Gemma Newlands is a Research Assistant at the Nordic Centre for Internet and Society, BI Norwegian Business School (Oslo, Norway).

Ann Light is a Professor of Design and Creative Technology at the University of Sussex. She specializes in the social impact of technology, and particularly the deployment of platforms. Her design work concerns innovation in social process, social justice and sustainability, researched using participatory methods.

Nicole Immorlica is a Senior Researcher at Microsoft Research. She holds a Ph.D. from MIT. Nicole's research

lies broadly within the field of algorithmic game theory. Her research interests include explaining, predicting, and shaping behavioral patterns in various online and offline systems, markets, and games.

Program Committee

The following individuals serve on the workshop's program committee:

- Coye Cheshire, UC Berkeley
- Tawanna Dillahunt, University of Michigan
- Mary L. Gray, Microsoft Research New England
- Julia Ticona, University of Pennsylvania
- Alex Rosenblat, Data & Society

Pre-Workshop Plans

Participant Recruitment: Participants will be recruited from the CSCW and CHI communities, and from the extended research networks of the organizers. Detailed information about the workshop will be made available at our workshop website. We will reach out to international, interdisciplinary networks focused on the digital/sharing economy, such as the SharingAndCaring COST Action, OuiShare, and the series of International Workshops on the Sharing Economy. Moreover, we will circulate the call on relevant listservs and through social media. Finally, we will extend the invitation to researchers, practitioners, and activists local to the East Coast, leveraging the location of CSCW 2018.

Participant selection: Our workshop will accommodate up to 20 participants. Those interested in the workshop will be invited to submit a 2-4-page position paper in the SIGCHI extended abstracts format that addresses the workshop themes. We encourage potential participants to discuss their interest in the themes, welcoming reports of (preliminary) empirical results, theoretically oriented pieces, as well as short manifestos regarding

next steps. To promote broader participation, in particular from the industry and civic organizations, we offer the option of submitting alternative material of rough equivalence (e.g., a design portfolio, white paper, or similar). Submissions will be reviewed by the organizers and accepted based on the relevance and development of their chosen topic, as well as participants' potential to contribute to the workshop.

Post-Workshop Plans

The key objectives of the workshop are to strengthen the community focused on digitally mediated labor as well as to encourage and facilitate new collaborations among workshop participants. To conclude, we will discuss possible next steps with all participants. These could include further events, setting up a listserv/wiki for the community, writing a piece for *Interactions* to report on the state of the art and the outcomes of the workshop, or, more ambitiously, working toward a journal special issue.

Equipment and supply needs

The workshop has no equipment and supply needs beyond the usual: a room to host the event, wireless network connectivity, and a projector. Some supplies for group work, such as post-it notes, flipboard-sized paper, and pens, would be helpful.

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