
Transparency in platform-based microwork

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Abstract

Online platforms facilitate microproductivity, allowing wider sets of people to work on well-defined tasks in short bursts. Their design often limits visibility of workers to each other, and to the purpose and product of their work. How can we design microproductivity platforms with transparency? How can transparency enhance the quality and experience of microwork?

Author Keywords

Microproductivity, crowdsourcing, transparency

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

Platforms as worksites provide technologists and designers control over when and how work is distributed, aggregated, priced, and recombined. At the same time, they hide important information from participants about where work is coming from, who else is working, and how the outcome of work is being used. How can platforms provide transparency to microworkers? How can transparency enhance or harm the microwork experience?

Transparency has positive benefits for motivation and coordination. Transparency should improve internal worker motivation by giving workers a positive sense of their personal importance to the work. Greater transparency should also increase workers' perceived instrumentality by providing them with a big picture of the work to which they contribute in the crowd sourced setting, and information about their specific role in this work.

At the same time transparency increases information overload, in some cases actually reduce motivation, and may reduce the independence of work contributions, reducing the quality of the final product. Thus, a question remains as to how to provide workers transparency while leveraging the benefits of centralized platform-based management.

Biography

I am an associate professor in the Human-Computer Interaction Institute in the School of Computer Science at Carnegie Mellon University, jointly appointed in the Heinz College of Public Policy, Information Systems and Management. I study the design and use of communication technologies, with a focus on collaboration and new forms of work. My research spans the fields of Human-Computer Interaction, Computer-Supported Cooperative Work, Information Systems and Organizational Behavior. I received my B.Sc. in Computer Science from the University of Southern California, and her M.S. and PhD from Carnegie Mellon as part of the first cohort to receive a PhD in the field of Human-Computer Interaction. I have spent time at Microsoft Research, studying communication technology usage, and Motorola, Inc., developing software for cellular technology

infrastructure. I direct the Connected Experience Lab within the HCI Institute at CMU (coexlab.com), where we study the social and psychological impacts of communication technology designs and new forms of work.

How the author's work relates

We have been studying transparency in platform-based workspaces, finding both positive and negative effects of greater visibility of the activities of other participants. In complex open source software development on GitHub, we found the technology of transparency was appropriated in ways that facilitated coordination, learning, and motivated participants. In platform-based on demand labor, we found that a lack of transparency about work assignment algorithms affected the work experience. In experiments on workflow transparency we found that providing "microworkers" (Amazon Mechanical Turk workers) with workflow information, that is, information about the division of labor, the overall sequencing of tasks, and where the worker fits in the workflow, increased their motivation and work quality threefold. We also found that the effects of different forms of workflow information must be carefully tested because this information could potentially backfire by revealing to workers that they are only a minute piece of a larger process. We are developing a theory about when and how transparent tools facilitate different practices or behaviors that enhance or reduce work experience and work quality. At the workshop I would love to discuss how we can design transparent microwork platforms, and questions about how much transparency to provide around workflows, algorithmic optimization, and other participants actions. I look forward to discussing this topic with the other participants at the workshop.