Patron or Poison? Industry Funding of HCI Research

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ABSTRACT

For over 20 years, the academic human-computer interaction (HCI) and computer supported collaborative work (CSCW) communities have conducted research on user-facing hardware, software, and social media platforms dominated by a few key firms. Even as the contributions made by these scholars have shaped the development of these technologies, so too does industry funding play a key role in convening and supporting our community. This panel brings together HCI researchers for a reflective conversation on industry funding support for HCI.

KEYWORDS

HCI community; industry sponsorship; funding; reflection.

	2015	2016	2017	2018	2019
Amazon					X
Facebook	X	X	X	X	X
Google	X	X	X		
IBM	X	X	X	X	
Intel		X			
Microsoft	X	X	X		X
Snap Inc.				X	

CSCW web front page conference sponsorship by major technology companies in the last 5 years.

INTRODUCTION

Given that CSCW is a premiere venue for human-computer interaction (HCI) research in both academia and industry, the HCI community has an enduring interest in the form and function of the exchange between these two sectors. Just as Xerox PARC and Stanford University collaborated in early HCI work, the boundary between industry and academic HCI has long been dynamic and enmeshed. This panel convenes CSCW members to reflect on the function and value of industry sponsorship for the CSCW community. What hopes, concerns, and shared visions do community members have for CSCW as a site of cross-sector engagement? What influences are present in industry collaborations? Do other domains of research offer models or lessons to guide future industry participation in HCI research?

A VALUED CONTRIBUTION

The HCI community has a longstanding commitment to the broader societal impact of its research [14]. The technologies CSCW researchers study and develop can doubtlessly improve lives, as for instance exemplified by research into accessibility technologies. Given the frequent focus on systems, members of CSCW often express this commitment by targeting research into questions of design, which connects HCI research to product development activities. Industry uptake of this work increases the likelihood that findings from CSCW work will reach actual end users in the form of new artifacts and improvements on existing ones. If anything, despite academic HCI research having shaped industrial products since the 1970s [11], CSCW contributors have remarked that their work has not resulted in *enough* tech transfer. As early as the mid-1990s, HCI researchers were concerned that too little work results in commercial products [7]. More recently, a CHI panel suggested that HCI research could begin to embrace work as it moves downstream into the product development and deployment cycle, drawing inspiration from the "bench-to-bedside" approach of translational medicine [2].

Cross-sector communities like CSCW also have the opportunity to collaborate on pressing social issues. In some cases, this engagement leads to changes in platform design with broader societal impacts. For example, HCI scholars criticized Facebook's "real name" policy, citing its disparate impact on people who are indigenous, non-Western, transgender, or use a pseudonym for personal safety [6]. Around the same time, Facebook amended their policy [13]. Further evidence of the value of industry participation in conversations about prominent HCI topics is found in research about online disinformation and bots. Using research describing bots' reach, activity, and signature network structure, Twitter deactivated tens of thousands of accounts in 2017-2018 [15].

In addition to the ways in which industry presence is considered to be amplifying the impact of our work, industry support also makes conferences themselves more accessible to a broader array of

people. Support from conference sponsors is used in part to provide travel funds and scholarships, especially to support need-based or geographic inclusivity.Funds also support gathering spaces.

A CAUSE FOR CONCERN

While there are clear benefits to industry funding in conference sponsorship, research collaborations, and employment options, there is also cause for concern about the enmeshment of academic research and industry development. We need only look to other areas of scientific research to observe challenges arising from corporate funding [10]. Writing on the pharmaceutical industry, Sismondo [16] describes funding by drawing on a Gramscian lens [5] as hegemony in knowledge production: "[We] might ask not whether this or that piece of pharmaceutical knowledge is justified or true, but note instead that the structures of knowledge that create it concentrate power in very few actors, which in turn have very narrow interests." A high profile example of this concern is evident in Oreskes and Conway's 2010 exposé *Merchants of Doubt* about the tobacco industry's funding 20th century health research [12]. The book coins the term the "Tobacco Strategy" to describe a deliberate industry effort to shape the conclusions of academic researchers as a means to obfuscate evidence linking smoking to health problems. For our purposes, we note in this case the diffuse structure of research funding that was provided without directives or conditional support. As a defensive tactic, the tobacco industry invested in biomedical research at established academic institutions that was only indirectly related to smoking, such as the impact of stress on the immune system, or the impact of psychological attitude on the course of disease. At the same time that this research funding was intended to contribute to society as an "obligation of corporate citizenship", the resulting research, seemingly independent, was cited in the arguments that tobacco industry lawyers made to emphasize how little was known about the complexities of lung disease.

Information technology companies have lately been involved in legal and political battles, for which academic research could be selectively leveraged to support their positions. For example, recent research on content moderation has been especially salient for social media companies; in September 2015, Twitter CEO Jack Dorsey, responding to a subpoena by the United States House of Representatives, testified on the role of Twitter in misconduct surrounding the 2016 U.S. elections.[1] Dorsey's written testimony explicitly referenced defensive academic-industry collaboration: "Earlier this year, Twitter began collaborating with the non-profit research center Cortico and the Massachusetts Institute of Technology Media Lab on exploring how to measure aspects of the health of the public sphere... Twitter strongly agrees that there must be a commitment to a rigorous and *independently vetted* set of metrics to measure the health of public conversation on Twitter" [emphasis added]. Even as this quote emphasizes the importance of independent third party evidence, Cortico is a company led by a professor at MIT who is also the former Chief Media Scientist at Twitter. This example illustrates the potential for HCI research to converge with industry interests.

[1]https://energycommerce.house.gov/hearings/twitter-transparency-and-accountability/

Industry funding could also incentivize researchers away from alternative research areas or influence the imagination of the community—e.g., in what applications or design implications are selected as examples, motivations, or conclusions. There are whole CSCW streams of work that function similarly to "R&D," such as enhancing user engagement with television, but little on market consolidation, system obsolescence, or other power asymmetries between users and platforms. In the same vein, feminist HCI [1] [4] remains an exciting but under-explored research area. Anarcho-punk and post-capitalist HCI [9] [3] [8] are only just emerging as a viable topic. Has the promise of future funding, employment, or impact-as-product-design cast a shadow over alternative paths forward?

STRUCTURE OF THE PANEL

The panel will be structured to maximize engagement from the audience. We will have one lead moderator, six panelists, and two supporting moderators. The event will consist of brief (4-minute) introduction, concise opening statements from each panelist (20 minutes total), and a longer (50-minute) open discussion between the panelists and the audience. We will leave 6 minutes of unscheduled time to accommodate for parts that may start late or go overtime despite our best efforts. During the open discussion, questions and comments posed to the panel will alternate between being drawn directly from the audience, being selected from an online Q&A location, and being drawn from a curated set decided in advance. The timekeeping moderator and the lead moderator will generally limit audience question or comment time to 30 seconds, and limit panelist response time to 1 minute per question or comment. For those panelists who cannot attend in-person, we will host a simultaneous online "Ask Me Anything"-style forum discussion.

PARTICIPANTS

Our panel will consist of six members of HCI-related areas from a range of backgrounds. **Prof. Lilly Irani** is Associate Professor of Communication, Science Studies, and Critical Gender Studies at the University of California San Diego. **Prof. Niloufar Salehi** is Assistant Professor in the School of Information at the University of California Berkeley. **Prof. Joyojeet Pal** is Associate Professor at the University of Michigan Ann Arbor on research leave at Microsoft Research India. **Dr. Andrés Monroy-Hernández** is a lead research scientist at Snap Inc. **Dr. Elizabeth Churchill** is Director of User Experience at Google in Mountain View, California and Executive VP of ACM SigCHI. **Prof. Sneha Narayan** is Assistant Professor of Computer Science at Carleton College. The moderating team, the **Critical Platform Studies Group (CritPlat)**, is an international research collective based at the University of Washington and the Oxford Internet Institute; **Dr. P. M. Krafft**, **Meg Young**, and **Michael Katell** (listed here in randomized order) compose the moderating team.

ACKNOWLEDGMENTS

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