Engaging Speculative Practices to Probe Values & Ethics in Sociotechnical Systems

Organizers & key participants:

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Abstract

Speculative practices have recently emerged from design-based research as an effective set of methods and orientations for probing how values become embedded in, and emerge from, sociotechnical systems. These can be used to both critically analyze existing arrangements of sociotechnical systems and explore possible alternative arrangements. While many disciplinary outlooks within iSchools engage in such questions, not all research practitioners have exposure to speculative practices and methods. This SIE seeks to engage researchers from diverse disciplinary traditions in activities using first-hand, participatory experience with speculative research methods, and to imagine what role these methods might play in various research programs.

Description

Purpose and intended audience

"Values in Design" researchers spanning Information Studies, Science & Technology Studies, Human Computer Interaction, and adjacent fields have utilized an expanding collection of methods for probing, discussing, and addressing social values in relation to technical design practices (Friedman & Nissenbaum 1996; Knobel & Bowker 2011; Shilton 2018). While many of these methods are useful at investigating and designing current sociotechnical systems, there is still a gap about how to think about the complex changes in the sociotechnical relationships and social values implicated by the new and emerging technologies and practices, especially relationships and values implicated in interactions beyond those of systems' immediate users.

A growing body of work from design-based research communities focuses on "speculative practices" such as speculative design, design fiction, or speculative enactments in order to probe values and ethics issues in sociotechnical systems in reflexive and future-looking ways (e.g., Asad et al. 2014; Bardzell et al. 2012; Dumit 2017; Sengers et al. 2005; Wong et al. 2018) . Rather than trying to accurately predict the future, these practices serve a more exploratory and critical purpose, asking "what if?" to surface, propose, and discuss different types of relationships among the social, political, and technical. These methods ask designers and stakeholders to imagine, create, or act out everyday experiences, while being attuned to the interconnectedness of the technical, social, and political. Rather than thinking about future

possibilities in terms of utopia or dystopia, speculative practices look toward to the everyday and pay attention to how values and ethics emerge in everyday experiences and practices. It lets us be attuned to the experiences of power and inequalities that people experience today, and interrogate how emerging technologies might get uptaken, reused, and reinterpreted in a variety of existing social relations and systems of power. Using speculative practices to interrogate sociotechnical issues present in the everyday can better help us think about the futures we desire (or wish to avoid).

We have used and deployed a range of speculative practices in relation to issues of privacy, security, and crowd labor (Merrill & Chuang 2018; Wong et al. 2018; Wong et al. 2017). We hope to give researchers interested in security, privacy, and other values first-hand experience with these methods, to share our expertise and to learn more about how other researchers may wish to integrate these methods into their work.

Our intended audience is for researchers interested in interrogating technology-related values and ethics using future-oriented, design based, speculative, or critical lenses and approaches. The organizers have expertise in considering sociotechnical aspects of security and privacy in wearable and remote sensing systems, but invite researchers with expertise and interest in other values- and ethics-related issues and domains, including but not limited to bias and fairness in machine learning, labor and the digital economy, surveillance and public spaces, or digital civic technologies.

Proposed activities

Ramp-Up
The organizers have used and tested a range of speculative research practices in prior research, two of which we will use to engage with participants during the SIE.

Agenda
The session will run in 4 parts. In the first part of the session (approximately 10 minutes), we will introduce the concept of speculative practices, and their orientation to interrogating multiple possible types of relationships and experiences for information and information technologies, situated in the social and political.

In the second and third parts of the session, attendees will split into groups and participate in a series of speculative activities. In the second part, attendees will engage in a speculative activity we call "Wheel of Worlds." (approximately 30 minutes). This brainstorming activity has participants imagine and create a series of possible worlds based on some type of fictional, though physical social, legal, or technical change. These worlds are then probed to surface multiple types of experiences, practices, and relationships from which values- and ethics- related issues might emerge.

In the third part, attendees will engage in another speculative activity we call "Threat Fictions."(approximately 30 minutes). This game-based activity seeks to push on the boundaries of what players conceive of as a security threat, and what these boundaries mean for the types of threats people catch (and miss) and for how we might consider the "proper" functioning of a system.

In the fourth part, we will use the remainder of the time (approximately 20 minutes) to have a group discussion to discuss our experiences using the speculative practices during the session and ways speculative practices could be useful in future work.

Follow through

During the Session, we will invite participants contribute to a social media feed about the SIE activities on Twitter (or other platforms). If there is sufficient interest, future events may be organized, such as organizing a panel at the 4S (Society for the Social Studies of Science) Annual Meeting, or a follow-up workshop at a future Human Computer Interaction Conference or iConference. With enough interest, we may also pursue writing short academic article, such as in the ACM *interactions* magazine.

Relevance & Significance

Research based in speculative practices have the potential to enrich and expand our methods for probing complex sociotechnical (or "wicked") problems concerning values, ethics, and technology by bridging techniques of design and critical analysis. It helps think about information as entangled in relationships among social, technical, and political practices. As well as being an interactive session to discuss speculative practices as useful research methods and orientations, the interactive format of the session will help attendees think about and reframe questions in their own research domains in novel ways.

Duration

90 minute workshop.

Special Requirements

None

Works Cited

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