

ADVANCING INTERACTION

Synthesizing Theories
on Users, Design, and AI

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How can theory help us rethink and advance interaction?

A guiding goal of this workshop is identifying theoretical frameworks that can help us rethink interaction.

A guiding principle for this workshop is identifying theoretical frameworks that can help us rethink interaction. **But what does it mean to help us rethink interaction?**

How do we use theory, through frameworks or operationalization, in the design process?

In this talk, we're going to look to the constructs of **users and **human-machine relationships** to work through how we might use theory in rethinking interaction design.**

INTERACTION OUTSIDE THE USER

One of the guiding questions in this workshop asks us, how can we create interactive digital environments that are flexible enough to support **appropriation by end users?**

Well, let's start with the end users.

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Design in HCI often starts with asking, **who is your user?** However, we need to ask ourselves **if this is the right question.** **What are we talking about when we focus on the end user?**

To home in on what it means to interrogate the construct of the user, let's take a look at **Intersectional HCI.**

Ari Schlesinger, W Keith Edwards, and Rebecca E Grinter. 2017. "Intersectional HCI: Engaging Identity through Gender, Race, and Class." Proceedings of the 2017 CHI Conference,

INTERSECTIONALITY TAKEAWAYS

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The user is an **overloaded construct**. There are many different people with various gender, racial, and SES backgrounds who are using and experiencing technology in various ways.

Some of these users have overlapping marginalized identities that result in experiencing bias in unique and varied ways, even in the things we design and research.

Coming back to the question of appropriation by the end user, what do we do with the overloaded construct of the user?

Post-Userism suggests we abandon it.

Eric P. S. Baumer and Jed R. Brubaker. 2017. "Post-Userism." Proceedings of the 2017 CHI Conference.

**Baumer and Brubaker explain that a
“fixation on the user limits our ability
to see other configurations of interaction
with computers.”**

Rather than limiting ourselves with a focus on end-users generally, we ought to start with particular experiences from diverse sets of people focused on flexibility and appropriation.

AGENCY IN MACHINE-USER PARTNERSHIPS

The other guiding questions for this workshop ask us about combining human intelligence with artificial intelligence, and about varying levels of control in human-computer partnerships.

An important aspect of these questions is the relationship, or partnership, between human and machine.

But these **partnerships are difficult to create, maintain, or understand.**

**Part of this difficulty is understanding
the agency of computers.**

**To walk through this, I am going to
overview my forthcoming CHI publication
about race, chatbots, and AI, titled,
Let's Talk About Race.**

Schlesinger, A., O'Hara, K. P., & Taylor, A. S. (2018). "Let's Talk About Race: Identity, Chatbots, and AI." Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems.

**This research is about taking the first steps
towards more just AI chatbot technologies.**

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By drawing on technologies, theories, histories, and experiences, we can look at a specific problem space like race and chatbots to **understand why it is so hard** for chatbots to talk about race. **And, we can use these insights** to develop **strategies for handling race-talk in new and improved ways.**

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One of the main struggles with this work was tying theories and social systems to specific technical configurations. In other words, connecting **the agency of social systems to the agency of the machine.**

**Once we developed these connections,
we were able to take seriously **the agency
of machines**, and make sense of the **impact
their agency has on **creating different interaction
outcomes.******

Linking **theory** to specific technical configurations **enabled us to rethink interaction** for AI chatbots.

**Coming back to the guiding questions,
theory can help us tackle difficult problems
like combining human intelligence with
artificial intelligence and allocating control
in human-computer partnerships.**

WORKSHOP GOALS

Developing strategies to make working with theory in interaction design more concrete.

Learning from you how you think about and use theory in their work.

Sharing some examples that were too big to fit into this talk.

BUILD ON THEORY TO RETHINK INTERACTION

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