

# The University of Chicago Computer Science Department

## PRESENTS:

### Participating and Designing around Algorithmic Sociotechnical Systems



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#### Abstract:

Algorithms play a vital role in curating online information in socio-technical systems, however, they are usually housed in black-boxes that limit users' understanding of how an algorithmic decision is made. While this opacity partly stems from protecting intellectual property and preventing malicious users from gaming the system, it is also designed to provide users with seamless, effortless system interactions. However, this opacity can result in misinformed behavior among users, particularly when there is no clear feedback mechanism for users to understand the effects of their own actions on an algorithmic system. The increasing prevalence and power of these opaque algorithms coupled with their sometimes biased and discriminatory decisions raise questions about how knowledgeable users are and should be about the existence, operation and possible impacts of these algorithms. In this talk, I will address these questions by exploring ways to investigate users' behavior around opaque algorithmic systems. I will then present new design techniques that communicate opaque algorithmic processes to users and provide them with a more informed, satisfying, and engaging interaction. In doing so, I will add new angles to the old idea of understanding the interaction between users and automation by designing around algorithm sensemaking and transparency.

#### Bio:

*Motahhare Eslami is a Ph.D. Candidate in Computer Science at the University of Illinois at Urbana-Champaign, where she is advised by Karrie Karahalios. Motahhare's research develops new communication techniques between users and opaque algorithmic socio-technical systems to provide users a more informed, satisfying, and engaging interaction. Her work has been recognized with a Google PhD Fellowship, Best Paper Award at ACM CHI, and has been covered in mainstream media such as [Time](#), [The Washington Post](#), [Huffington Post](#), [the BBC](#), [Fortune](#), and [Quartz](#). Motahhare is also a Facebook and Adobe PhD fellowship finalist, and a recipient of C.W. Gear Outstanding Graduate Student Award, Saburo Muroga Endowed Fellowship, Feng Chen Memorial Award, Young Researcher in Heidelberg Laureate Forum and Rising Stars in EECS.*

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Host: Blase Ur