

# The University of Chicago Computer Science Department

## PRESENTS:

### “Answering Ad Hoc Causal Questions in Web Search”



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Microsoft Research

#### **Abstract:**

Many people use web search engines for expectation exploration: exploring what might happen if they take some action, or how they should expect some situation to evolve. While search engines have databases to provide structured answers to many questions, there is no database about the outcomes of actions or the evolution of situations. The information we need to answer such questions, however, is already being recorded. On social media, for example, hundreds of millions of people are publicly reporting about the actions they take and the situations they are in, and an increasing range of events and activities experienced in their lives over time. In this presentation, we demonstrate how causal methods can be applied to such individual-level, longitudinal records to generate answers for computational social science questions in the areas of mental health, risky behavior, and others, and how these methods can be extended to support web search on expectation exploration queries.

#### **Bio:**

Emre Kiciman is a principal researcher at Microsoft Research AI, where he works at the intersection of social computing, machine learning, and information retrieval. His research focus is on causal analysis of large-scale datasets, as well as the broader implications of AI on people and society. Emre’s past research includes entity linking methods, deployed in the Bing search engine; and foundational work on applying machine learning to manage reliability of large-scale internet services.

**Monday, November 26, 2018**

**2:00 pm**

**JCL 390**

**Host: Mike Franklin**