Date and Time: November 17 at 1:15 pm in Whitney Hall 100E

Speaker: Brandon Stewart (Princeton U)

Title: How to Make Causal Inferences Using Texts

Abstract: Texts are increasingly used to make causal inferences: either with the document serving as the outcome, treatment or confounder. I overview two recent papers on causal inference with text-based latent representations. We demonstrate that all text-based causal inferences depend upon a latent representation of the text and we provide a framework to learn the latent representation. Estimating this latent representation, however, creates new risks: we may unintentionally create a dependency across observations or create opportunities to fish for large effects. To address these risks, we introduce a train/test split framework and apply it to estimate causal effects from an experiment on immigration attitudes and a study on bureaucratic responsiveness. I then describe a framework for text-based confounding adjustment using text matching. (Based on joint work with Egami, Fong, Grimmer, Nielsen and Roberts)

Brief bio of the speaker:

Prof. Stewart is an Associate Professor of Sociology at Princeton University where he is also affiliated with the Politics Department, the Office of Population Research, the Princeton Institute for Computational Science and Engineering, The Center for Information Technology Policy, and the Center for the Digital Humanities. He develops new quantitative statistical methods for applications across computational social science. He completed his PhD in Government at Harvard in 2015 and a master's degree in Statistics from Harvard in 2014.

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