

Computational Social Science: Analyzing Society and Culture with Big Data

Abstract

Professor James Evans will introduce the potential for social science to take advantage of emerging large-scale data on human behavior and communication, alongside recent computational and AI methods to model that data at scale. These models represent digital doubles of society, language, culture and even individuals, enabling deeper understanding, prediction and counterfactual simulation (if you change X , outcome Y will result). Specifically, he will show the power of deep learning representations of text to understand the space of human meanings, deep learning representations of social networks to predict new interactions, deep representations of crime and terrorist data to predict new infractions and identify biases in enforcement, deep representations of science and technology to predict new discoveries and inventions, and deep models of survey responses to anticipate responses to unasked or answered questions. Professor Evans will explore how these models demonstrate a generative new standard for social science, how they can be used to increase the efficiency of social experimentation, and how they can enable the discovery of useful social technologies.