An Agent-Based Modeling framework to study socio-technical systems

There are many unanswered research questions around algorithmic systems. For example, under which conditions do social media platforms cause echo chambers? Does YouTube promote radicalization in users and, if so, how? Does false news spread faster than the truth? In this talk, I will show that these problems, and many more, can be modeled with a single simulation framework that draws from Agent-Based Modeling (ABM). ABM simulates the actions and interactions of agents, each having their own attributes. I will describe how the tool that I am building can enable researchers to answer questions on the societal effects of algorithmic systems, help engineers study the effects of changes on the platforms they build, and assist policymakers in regulating potentially harmful effects.