Abstract:
Technological advances have changed every aspect of our lives in recent decades, yet, for the most part, the same systems of democratic decision making have been in place for centuries. I will argue that computer scientists can help rethink the practice of democracy, as well as its potential applications. I will focus on three emerging paradigms that go far beyond your run-of-the-mill election: (i) liquid democracy, an approach that allows voters to transitively delegate their votes; (ii) participatory budgeting, whereby residents collectively decide how to spend their local government's budget; and (iii) virtual democracy, which employs instant elections among machine learning models of real voters to address the grand AI challenge of ethical decision making.