Social Consequences in Computing: Fairness, Privacy, and Other Values
EECS 598 - Winter 2022

Instructor: Ben Fish
Prerequisites: Graduate standing or permission from the instructor. A basic understanding of algorithms and their uses is highly desirable.

Overview: Algorithmic solutions are now increasingly being used to make policy decisions about people, including in lending, policing, criminal justice, admissions, advertising, and hiring. In doing so, the process of computing and algorithm design now involves understanding the role of computing in society. This shifts the focus of algorithm design from constraints like speed or space to questions of what is just or unjust, what constitutes fairness, oppression, and privacy, and the politics of making decisions that affect the people around us.

This class will cover the ways in which applications of computing affect societal institutions and how these social consequences produce questions about how to conceptualize, critique, and ensure our all-too human values in computing. To accomplish this, we will explore computing -- particularly artificial intelligence (AI) and machine learning -- in online platforms, algorithms, and policy-making, including exploring the role of AI in everything from personalization to surveillance to online speech. We will focus on those values where recent advances in computing have demonstrated large societal challenges: privacy, fairness, justice, and related values. We will critically examine the philosophical and sociological underpinnings of these values and the strategies commonly used to promote them, and seek to connect these conceptualizations to the emerging algorithmic tools proposed for promoting those values. In doing so, we will develop a diverse toolbox of computational, social, and political ideas, with the end goal of developing the ability to thoroughly reason through these problems in our own projects.

Structure: This course will largely be discussion-based, though there will be some lectures as well as presentations by students on relevant papers. Students will also take turns leading class discussions centered on assigned readings. Grading will be based on 1) leading class discussions and participation, 2) reviews of readings, 3) paper presentations, and 4) a final group project. There will be no exams.