Abstract

We consider a decentralized two-sided matching market in which agents arrive and depart asynchronously. As a result, it is possible that an agent on one side of the market (an “employer”) identifies an agent on the other side of the market (an “applicant”) who is a suitable match, only to find that the applicant is already matched. We find using a mean field approach that lack of knowledge about availability can create large welfare losses to both employers and applicants. We consider a simple intervention available to the platform: limiting visibility of applicants. We find that this intervention can significantly improve the welfare of agents on both sides of the market; applicants pay lower application costs, while employers are less likely to find that the applicants they screen have already matched. Somewhat counterintuitively, the benefits of showing fewer applicants to each employer are greatest in markets in which there is a shortage of applicants.

Joint work with Nick Arnosti (Stanford MS&E) and Yash Kanoria (Columbia GSB).