

## "Misinformation and Mistrust: The Equilibrium Effects of Fake Reviews on Amazon.Com"

### Abstract:

Fake product reviews—and the manipulation of reputation systems by sellers more broadly—are a widespread issue for two-sided platforms. We study two primary channels through which such manipulation can affect market outcomes: (i) creating misinformation about the reviewed product, and (ii) breeding mistrust in ratings system overall. To examine these in the Amazon.com marketplace, we measure misinformation by observing products purchasing fake reviews and measure mistrust by eliciting shoppers' beliefs about the prevalence of fake reviews on Amazon through an incentivized survey experiment. We incorporate these into a structural model of demand in which consumers form beliefs about product quality based on observed reviews and perceptions about their trustworthiness. Counterfactual policy simulations indicate that fake reviews reduce consumer welfare, shift sales from honest to dishonest sellers, and ultimately harm the platform. Welfare losses arise primarily from misinformation that leads to worse purchases. While mistrust also leads to purchasing mistakes, the consumer harms of mistrust are largely offset by increased price competition under a weakened ratings system. Finally, we identify key limitations in platforms' incentives to police manipulation and evaluate enforcement alternatives.