NBER Digital Economics and AI Tutorial Application

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I am currently a fifth-year Ph.D. candidate in Economics at Cornell University. I enrolled in August 2022 and expect to graduate in May 2028. My research lies at the intersection of empirical industrial organization and digital economics. I study how digital platforms shape consumer behavior, firms' strategic decisions, and market outcomes through the rules they establish and the information they provide. My three selected works in progress investigate (1) how platform policies regarding price promotions affect firms' pricing strategies, (2) how online reputation systems influence product development, and (3) how platforms shape trust and belief formation.

(1) Discounting under Platform Rules (Job Market Paper)

Price promotions on digital platforms are shaped not only by sellers' pricing decisions but also by the institutional environment in which those decisions are made. Platforms organize promotional events and establish rules governing when and how sellers can offer discounts. These institutional features can shape consumer purchasing behavior, firms' intertemporal pricing incentives, and market efficiency. While the literature has extensively studied firms' pricing strategies and consumer responses to discounts, much less is understood about the role of platforms in shaping the promotional environment.

My job market paper investigates how platform policies governing price promotions interact with consumer demand and firms' dynamic pricing decisions, and whether existing policies lead to efficient market outcomes. I develop a structural empirical framework that links consumer demand to firms' dynamic discounting decisions under platform imposed constraints. This framework allows me to evaluate how alternative platform policies affect consumer purchases, firms' strategies, and welfare. The central contribution is to treat platform promotion policies as an important dimension of market design and to provide insights into how platforms can structure

promotional opportunities to balance firms' incentives, consumer benefits, and overall market efficiency.

(2) Online Reputation and Product Updates in Digital Markets

Ubiquitous online reviews serve not only as pre-purchase information that helps potential customers make informed choices but also as post-purchase feedback that allows firms to learn about consumer preferences and adjust their strategies accordingly. This is particularly relevant in digital markets, where product quality can continuously evolve through post-release updates.

This project examines the impact of online reviews on firms' product update decisions. Online reviews may affect firms' decisions through two channels: by providing information about product shortcomings, and by creating reputational incentives to address them. I investigate whether and how firms respond to reputation signals, as well as how consumer feedback affects which aspects of product quality they prioritize for improvement. By studying the supply-side effects of online reputation, this project extends the literature on online reviews beyond consumer purchasing decisions to examine how reviews shape firms' incentives to improve product quality. The findings can also inform the design of more effective feedback loops between consumers and firms.

(3) Understanding Trust in Platforms (with Ben Leyden and Mike Luca)

Recent surveys have shown that trust in media has declined over the past decade. At the same time, people have increasingly shifted from traditional media to social media platforms for news and information, accompanied by growing concerns about misinformation and biased content. Together, these trends raise broader questions about how trust differs across media platforms and how digital information environments affect platform usage and belief formation.

In this project, we plan to conduct a survey and a randomized experiment to document overall levels of trust across media platforms, study how trust varies across key platform dimensions, and investigate whether the source of information affects

belief formation. This project contributes to the growing literature on news discernment and belief formation by examining how media platforms shape trust and distinguishing trust in information from trust in platforms.

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