

Truth Warrants Can Accelerate Sales in Digital Marketplaces



INTRODUCTION

Reputation Mechanisms
in Digital Markets

Financial Escrow for
Seller Accountability

Behavioral
Experimentation

Two-sided marketplaces suffer from an **information asymmetry** problem where the prospective buyers of a good cannot determine its quality before they purchase it.

This allows sellers to take advantage of consumers through **misleading advertising** that seeks to inflate product quality in order to profit from sales at a higher price.

Reputation systems that were designed as a **feedback mechanism** to limit such an outcome are circumvented because market reentry can occur at a negligible cost to sellers.

REPUTATION SYSTEMS ARE NOT ROBUST

The "market for lemons" problem (Akerlof, 1970) remains central to understanding reputation system failures, where sellers exploit information asymmetry to offload low-quality goods through misleading product offerings that fool buyers.

Resnick et al. (2000) identified three prerequisites for effective reputation systems:

1. Accurate feedback
2. Long-term participant identities
3. Resistance to manipulation

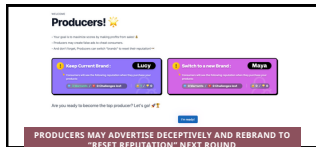
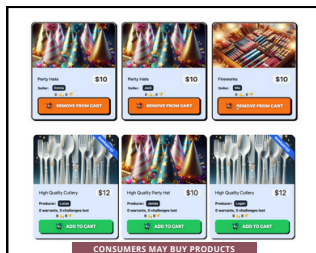
Modern marketplaces violate all of Resnick's assumptions, as evidenced empirically by Amazon's 2023 interception of 7 million counterfeit products despite a \$1.2B anti-fraud investment, only growing to 15 million counterfeit products intercepted in 2024 (Amazon, 2023; 2024). We model this in an interactive experiment with human participants in a two-sided market like Amazon:

Identity Cycling and Accountability Evasion: Negligible cost of market reentry enables reputation arbitrage, where sellers abandon compromised identities and relaunch under new accounts. Sellers optimize profit cycles around platform suspension timelines [Dellarocas' (2003) "**reputation reset**" framework].

DESIGNING INTERACTIVE DIGITAL MARKETS FOR BEHAVIORAL EXPERIMENTATION



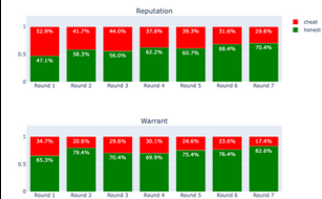
2-SIDES: PRODUCERS AND CONSUMERS



RESULTS

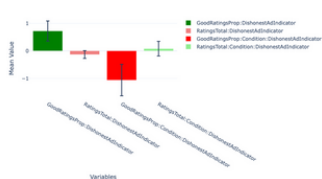
COMPARING REPUTATION AND WARRANTS

Honest and Cheating Sales by Round for each Market Type



LOWER DECEPTIVE PRODUCT SALES

Effect Sizes with 95% Confidence Intervals



WARRANTS REDUCE DECEPTION BY EXPLOITING "REPUTATION RESETS"

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