Price Discrimination in the Information Age: Prices, Poaching, and Privacy with Personalized Targeted Discounts

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February 21, 2020

Key Points

- The authors provide a robust framework for evaluating privacy concerns with respect to price discrimination
- The model makes a clear trade-off between standard pricing and the cost of targeting
- It provides conditions under which the ability to target increases firm profits and lowers consumer surplus addressing a long held discussion on targeting[1]
- The paper cleanly separates the benefit from advertising between offering discounts and information, enabling a closer focus on price discrimination

[1] Prat and Valletti (2019), Bester and Petrakis (1996), Taylor and Wagman (2014)

Key Points: Policy Implications

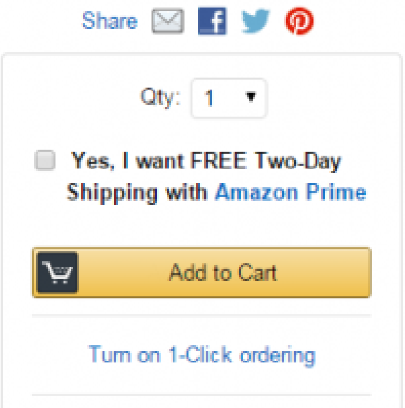
- Targeting in general shifts consumer surplus from "loyal" consumers to those willing to experiment
- Opt-in policies are evaluated in a rigorous manner, with their benefits and drawbacks clearly delineated
- When consumers are "alert" and list prices fall after an opt-in policy is implemented the policy has improved consumer welfare
- As the authors show, the model can easily be adapted to consider additional scenarios
    - For example, consider a dynamic setting, and the impact of collusive behavior among firms with respect to price discrimination with the temptation to target

Modelling Choices: Advertising and Price Discrimination

- In practice, price discrimination takes the form of partial auctions
- While there exist fixed costs to advertising, payment for digital advertisements is generally upon "conversion" as opposed to up front
    - Google Adwords charges per click, as opposed to per view
- Advertising becomes significantly more attractive when payment is contingent upon conversion
- Once privacy regulations are in place, price discrimination can be difficult to maintain
    - See the recent prevalence of "Shopper Apps" for example
    - E.G. Wikibuy, Honey, Shopkick
- Implies that there is likely to be more firm level competition since advertising is not ex-ante costly leading to greater overall surplus, but also a shift in profits from firms to consumers

Modelling Choices: Third Party Marketplaces

- The targeting mechanism is assumed to be exogenous, and independent of pricing or surplus
- Monolithic third party marketplaces are often used as intermediaries
    - See for example, Amazon or Google



Modelling Choices: Third Party Marketplaces (Ctd.)

- The third party may then have perverse incentives when designing the mechanism
  - In several cases, the "best" priced offer is not the one displayed to consumers
  - A tension exists, the third party may want to encourage firm competition in order to earn rents from increased bidding but simultaneously they may wish to maintain high prices to ensure firms remain on the platform
- Examining this effect is likely to change the behavior of firm pricing
  - Firm's may wish to increase advertising rates if given better pricing, or under-invest in advertisement due to inefficient third party rents
  - The third party will design the mechanism in a specific manner, pinning down the advertising rate in a specific region, this would sharpen the model's predictions