

Second Workshop on Marketplace Innovation

June 15, 2016

NYU Stern School of Business

In conjunction with the 2016 INFORMS Revenue Management Conference

Organized by Ramesh Johari, Ilan Lobel, Costis Maglaras, and Gabriel Weintraub

Markets are an ancient institution for matching the supply for a good or service with its demand. Physical markets were typically slow to evolve, with simple institutions governing trade, and trading partners generally facing a daunting challenge in finding the "right" partner. The information technology revolution, however, has generated a sea of change in how markets function: now, markets are typically complex platforms, with a range of mechanisms involved in facilitating matches among participants. Recent trends point to an unprecedented level of control over the design, implementation, and operation of markets: more than ever before, we are able to engineer the platforms governing transactions among market participants. As a consequence, market operators or platforms can control a host of variables such as pricing, liquidity, visibility, information revelation, terms of trade, and transaction fees. On its part, given these variables, market participants often face complex problems when optimizing their own decisions. In the supply side such decisions may include the assortment of products to offer and their price structure, while in the demand side they may include how much to bid for different goods and what feedback to offer about past purchasing experiences. The decisions made by the platform and the market participants interact, sometimes in intricate and subtle ways, to determine market outcomes.

In this workshop we seek work that improves our understanding of these markets, both from the perspective of the market operator and the market participants. With respect to the former we are particularly interested in work that derives useful insights on how to design these markets, taking into account their operational details and engineering and technological constraints. With respect to the market

participants, we seek for work that introduces novel approaches to optimize their decisions and improves our understanding of their interactions within the market. We look for a mix of approaches including modeling, theoretical, and empirical, using a wide range of tools drawn from operations management, game theory, auctions and mechanism design, optimization stochastic modeling, revenue management, econometrics, or statistics.

The list of markets to be studied includes but it is not restricted to:

- Online marketplaces, such as eBay, Etsy, etc.
- Internet advertising, including sponsored search and display ad exchanges
- Sharing economy markets, such as Uber/Lyft, AirBnb, etc.
- Online labor markets, such as Amazon mTurk, oDesk, Elance, etc.
- Procurement markets, such as technology-enabled government procurement
- Health care exchanges
- Financial exchanges

Confirmed speakers include:

- Alvin Roth (Stanford), **Plenary speaker**
- Santiago Balseiro (Duke)
- Kostas Bimpikis (Stanford)
- John Horton (NYU Stern)
- Marty Lariviere (Kellogg)
- Greg Lewis (Microsoft Research)
- Vahab Mirrokni (Google)
- David Parkes (Harvard)
- David Shmoys (Cornell)
- Garrett Van Ryzin (Columbia/Uber)

Program coming soon. Registration is free, but required. For registration and more information, please visit the [workshop website](#).

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New York, NY

We look forward to seeing you in June!

Workshop Organizing Committee

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