

DISSERTATION DEFENSE

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Marketing Implications of Shared Information Goods

My dissertation examines marketing strategies for technology products, with essays drawn focusing on shared information goods created by firms and by consumers. The first two essays examine sharing between consumers, which is mediated by social network relationships, involving both influence and strategic intent. The third essay examines sharing by firms in an imperfectly competitive marketplace.

The first essay examines why consumers (or users) make contributions that are necessary to keep social networks thriving. Several users post new 'user provided' or 'user generated' content (photographs, videos, status messages) on online networking sites like Facebook and Twitter, and it is important for marketers to understand why they do so. I develop a dynamic game framework in which consumers compete for contribution status in their social network by providing connected goods, and estimate the model using recently developed econometric approaches. I find that consumers can make contributions to increase their relative contribution status as well as to induce future contributions by others. I then discuss how the framework can be easily extended to include additional effects depending upon the context and availability of data.

In a second essay, I evaluate how consumers the dynamics of consumer choice behavior is impacted by the context of the social network interactions, specifically the strength and characteristics of network ties that determine susceptibility to social influence. I characterize both time-invariant heterogeneity through a hierarchical Bayesian framework, as well as time-varying heterogeneity with a Hidden Markov Model (or HMM).

The third essay uses an analytical methodology in which I rationalize several empirical puzzles in the market for commercial open source software, which is a fast-growing market. Open source software consists of a mix of publicly available software and private investments by firms in developing further features for the software. The code or features is publicly available, and any improvements made by firms must immediately be made available to competitors. The primary puzzling features are: (1) Why do profit-maximizing firms contribute to open source when the competitor can free-ride? (2) How can a market based on free-riding enable the production of high quality products? (3) Does mandatory sharing result in higher surplus for consumers and for firms? I demonstrate in my analysis that even when profit-maximizing firms invest in a privately appropriable dimension of software, they voluntarily choose to contribute to the public good.