NYU Stern School of Business
Department of Information, Operations & Management Sciences
INFORMATION SYSTEMS RESEARCH SEMINAR

TOPIC: Engineering Optimal Network Effects via Social Media Features and Seeding in Markets for Digital Goods and Services
SPEAKER: Florin Niculescu (Georgia Tech)
DATE: Thursday, November 15th, 2012
TIME: 4:00-5:30pm
PLACE: KMC 4-60

ABSTRACT

Firms nowadays are increasingly proactive in trying to strategically capitalize on consumer networks and social interactions. In this paper, we complement an emerging body of research on the engineering of word-of-mouth (WOM) effects by exploring a different angle through which firms can strategically exploit the value-generation potential of the user network. Namely, we consider how software firms should optimize the strength of network effects at utility level by adjusting the level of embedded social media features in tandem with the right market seeding and pricing strategies, in the presence of seeding disutility. We explore two opposing seeding cost models where seeding-induced disutility can be either positively or negatively correlated with customer type. We consider both complete and incomplete information scenarios for the firm. Under complete information, we uncover a complementarity relationship between seeding and building social media features which holds for both disutility models. When the cost of any of these action increases, rather than compensating by a stronger action on the other dimension in order to restore the overall level of network effects, the firm will actually scale back on the other initiative as well. Under incomplete information, this complementarity holds when seeding disutility is negatively correlated with customer type but may not always hold in the other disutility model, potentially leading to fundamentally different optimal strategies. We also discuss how our insights apply to asymmetric networks.

BIO

Dr. Marius Florin Niculescu joined Georgia Tech College of Management in the fall of 2009 after completing his Ph.D. in Operations, Information and Technology at Stanford Graduate School of Business. His research focuses on the economics of information systems, with connections to operations management and quantitative marketing. His projects employ both empirical and analytical methods.