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Speaker: Professor Ravi Bapna, Carlson School of Management, University of Minnesota

Date: Friday, October 18, 2013

Time: 1:15 - 2:30 pm

Location: Room 1520

Title: Completing the Virtuous Cycle between Payment and Social Engagement in Freemium Social Communities

Abstract: The Freemium business model, where a software product, an app or a service is simultaneously provided free of charge as well as sold for a premium, is a dominant business model in today’s social media landscape. From social communities such as LinkedIn to music listening services such as Spotify, Pandora and Last.fm, to gaming apps such as Angry Birds, to online dating sites such as Match.com, Freemium models owe their popularity to the fact that they combine elements of platform competition, software versioning, social communities and free sampling under one umbrella. Yet, making sustainable profits from a baseline zero price and getting free consumers to convert to premium subscribers is a continuing challenge for all Freemium communities. In this study, we zoom in on the question of monetizing Freemium social communities. Prior research has causally established that social engagement (Oestreicher-Singer and Zalmanson 2013) and peer influence (Bapna and Umyarov 2013) are the two important drivers of getting users to convert to premium in such communities. We flip the perspective and ask whether paying premium causes users to become more socially engaged. If this is the case, then we can claim the presence of a virtuous cycle between social engagement and premium subscription, which taken together with the presence of peer-effects, can be a powerful force for the monetization of Freemium social communities. We causally establish that payment for premium leads to more social engagement using a look-ahead propensity score matching (LA-PSM) procedure, and that this effect varies across users who have different lengths of experience with the site. We show how the LA-PSM technique is superior to both traditional propensity score matching and instrument variable regression in the context of rare events involving economic decisions. In the context of the Last.fm music listening Freemium social community, we find that paying for premium leads to 47% more new friends as compared to free users. Likewise, the premium adoption causes a 87% higher increase in loving songs, 4.5 times
higher number of playlists created, a 68% higher increase in receiving wall posts (shouts) from other users, and a 23% higher increase in listening to songs.

**Bio:** Dr. Ravi Bapna is the Board of Overseers Professor of Information and Decision Sciences Department at the Carlson School of Management, University of Minnesota. Bapna is the founding academic co-director (with Professor Joe Konstan) of University of Minnesota's Social Media and Business Analytics Collaborative (SOBACO), an inter-disciplinary research center that views the billion strong, online social-graph as a giant global laboratory, a sandbox to gain a deeper causal understanding of how consumers, firms, industries and societies are being reshaped by the social media and big-data revolution.

He teaches graduate students, executives, CIOs and CMOs on how to leverage the digital revolution for competitive advantage. His professional interests have resulted in research, consulting and executive education engagements with a variety of leading US and Indian companies. He regularly delivers keynote addresses on the leveraging big-data and social media to industry bodies and corporations.

Prior to joining Carlson, Bapna was a tenured associate professor at the Indian School of Business and the University of Connecticut. He served as the Executive Director of the Srin Raju Centre for Information Technology and the Networked Economy (SRITNE) at the Indian School of Business, where he founded the CIO Academy. At UConn Bapna was an Associate Professor and Ackerman Scholar in the Operations and Information Management Department at the School of Business.

His research interests are in the areas of economics of information systems, social media, big-data analytics, peer influence, monetization and design of Freemium communities, human capital issues in the IT services industry, online auctions, e-market design, Grid computing, and the design of the IT organization. His research has been extensively published in a wide array of journals such as *Management Science, Informs Journal on Computing, Statistical Science, Information Systems Research, Journal of Retailing, MIS Quarterly, Decision Sciences, CACM, Naval Research Logistics, DSS, EJOR and ITM*. His views have featured in the *Financial Times, Wall Street Journal, LiveMint, India Knowledge @ Wharton, The Economic Times* and *Business Today*.

Professor Bapna has been invited to present his research at the National Bureau of Economic Research, Federal Trade Commission, Telecom Regulatory Authority of India (TRAI), Google Inc., Bangalore, Harvard University, The Wharton School, Carnegie Mellon University, New York University, Georgia Institute of Technology, Boston University, University of Maryland, IIM-Calcutta, National Chengchi University, Taiwan, University of Washington, National University of Singapore and the University of Connecticut among others. He was invited to give the keynote address for the 13th International Conference on Electronic Commerce 2011, Liverpool, UK.

Bapna serves as a senior editor for *MIS Quarterly* and has been an associate editor for *Management Science* and *Information Systems Research*. He has served as the co-chair of the prestigious Workshop on Information Systems Economics (WISE) 2010, and the Conference on IS and Technology (CIST) 2009. He is one of the three founders of the Statistical Challenges in E-
Commerce (SCECR) workshop. He regularly serves on program committees of major international IS conferences and workshops, and was the co-chair of the First International Symposium of Information Systems held at ISB.

Professor Bapna completed his Bachelors in Commerce from St. Xavier’s College, Calcutta, Bachelors in Computer Engineering from the Manipal Institute of Technology and received his doctorate degree from the University of Connecticut, where his thesis was in the area of Information Systems.