Carnegie Mellon University-Temple
2018 Conference on Digital Marketing and Machine Learning

December 8-9, 2018

Tepper School of Business, Carnegie Mellon University, Pittsburgh, Pennsylvania

Conference Schedule

Saturday, Dec 8th, 2018

All rooms in The Tepper Quad

8.00 AM – 9 AM: Simmons A, *Registration & Breakfast *Conference Chairs Welcome

9 AM – 10.30 AM: Simmons A, Plenary Session 1, Chair: Timothy Derdenger

Keynote Speaker	Title
Peter Fader (University of Pennsylvania)	Customer Lifetime Value in a Machine Learning World
Anindya Ghose (New York University)	Using AI and Blockchain to Monetize the Mobile Economy
Hema Yoganarasimhan (University of Washington)	Personalized free trials: Design and evaluation
Oded Netzer (Columbia University)	Data as a Source of Research Innovation

10.30 AM – 11 AM: Coffee Break

11 AM – 12.30 PM: Concurrent Sessions 1

Room 2610 Session 1A (Sharing Economy, Ratings) *Hui Li (Carnegie Mellon University)*	Room 2611 Session 1B (Digital Games, Online Reviews, & Peer Influence) *Pedro Ferreira (Carnegie Mellon University)*	Room 2700 Session 1C (Social Media, Consumer Minds, & Predictive Analytics) *Ying Xie (University of Texas at Dallas)*
Consumer Protection in Sharing Economy **Siliang Tong** *(Temple University), Xueming Luo (Temple University), Zhijie Lin (Nanjing University),*	**Predicting User Activity, Engagement & Churn in Mobile Games via Constrained Joint Modeling** **Gourab Mukherjee** *(USC), Trambak Banerjee (University of Southern California), Shantanu Dutta (USC) & Pulak Ghosh (IIM Bangalore)*	**A Model of Tie Formation, Product Adoption, and Content Generation** **Mina Ameri** *(University of Pittsburgh), Elisabeth Honka (University of California Los Angeles), Ying Xie (University of Texas at Dallas)*
Market Shifts in a Sharing Economy: Impact of Airbnb on Housing Rentals **Yijin Kim** *(Carnegie Mellon University), Hui Li (Carnegie Mellon University), Kannan Srinivasan (Carnegie Mellon University)*	**Online reviews, management responses, and gender bias: An empirical investigation** **Davide Proserpio** *(University of Southern California), Isamar Troncoso (University of Southern California), Francesca Valsesia (University of Washington)*	**Which Brands Are Best Suited to Social Media Advertising? A Field Study of Social Media Advertising Effects on Consumer Attitudes** **Yakov Bart** *(Northeastern University), Andrew Stephen (University of Oxford), Felipe Thomaz (University of Oxford)*

When Coupon Meets Sharing Economy **Shaojun Marco Qin** *(Temple University), Xueming Luo (Temple University), Zhijie Lin (Nanjing University)*	**Do Spoilers Spoil: An Empirical Study of Movie Reviews using Topic Modeling** *Jun Hyun (Joseph) Ryoo (Western University),* **Xin (Shane) Wang** *(Western University), Shijie Lu (University of Houston)*	**Image network and interest group - A heterogeneous network embedding approach to analyze social curation on Pinterest** *Liye Ma (University of Maryland), Baohong Sun (Cheung Kong Graduate School of Business), Kunpeng Zhang (University of Maryland)*
Linking Attribute Sentiment and Ratings: Endogenous Selection in Online Reviews **Ishita Chakraborty** *(Yale School of Management), Minkyung Kim (Yale School of Management), K. Sudhir (Yale School of Management)*	**Probabilistic Topic Model for Hybrid Recommender Systems: A Stochastic Variational Bayesian Approach** *Asim Ansari (Columbia Business School),* **Yang Li** *(Cheung Kong Graduate School of Business in Beijing), Jonathan Z. Zhang (University of Washington)*	**How Does Variety of Previous Ads Influence Consumer's Ad Response?** **Omid Rafieian** (*University of Washington*), Hema Yoganarasimhan (*University of Washington*)
Competitive Dynamics in the Sharing Economy: An Analysis in the Context of Airbnb and Hotels *Hui Li (Carnegie Mellon University), Kannan Srinivasan (Carnegie Mellon University)*	**The Interplay of Information from Friends and from the Crowd to Search and to Purchase Experience Goods** *Baojiang Yang (Carnegie Mellon University), Miguel Godinho de Matos (Catolica Lisbon School of Business and Economics),* **Pedro Ferreira** *(Carnegie Mellon University)*	**An Investigation of Users' Decision on Information Disclosure** **Omid Elmi** *(University of Texas at Dallas), Ying Xie (University of Texas at Dallas)*

12.30 PM – 1.30 PM: Lunch

1.30 PM – 3.00 PM: Simmons A, Plenary Session 2, Chair: Hui Li

Keynote Speaker	Title
K. Sudhir (Yale University)	Can Friends Seed More Buzz and Adoption? Leveraging the Friendship Paradox
Param Singh (Carnegie Mellon University)	How much is an Image Worth? Airbnb Property Demand Estimation Leveraging Large Scale Image Analytics
Foster Provost (New York University)	Explaining the Decisions Made by Machine Learning-based Models
Xueming Luo (Temple University)	Voice-mining and AI Chatbot

3.00 PM – 3.30 PM: Coffee Break

3.30 PM – 5 PM: Concurrent Sessions 2

Room 2610 **Session 2A** **(AI, Machine Learning, Conversational Commerce, & Information Design)** *Pedro M Gardete (Stanford University)*	**Room 2611** **Session 2B** **(p-Hacking, Consumer Targeting, & Decision-making)** *Xi Chen (Erasmus University)*	**Room 2700** **Session 2C** **(Pricing, & Automation)** *Mustafa Dogan (Carnegie Mellon University)*
Letting Logos Speak: A Machine Learning Approach to Data-Driven Logo Design **Ryan Dew** *(University of Pennsylvania),*	**Test & Roll: Profit Maximizing A/B Tests** **Elea McDonnell Feit** *(Drexel*	**Blockchain Platform Network Externalities: A Time-Series Causal Analysis**

Asim Ansari (Columbia University), Olivier Toubia (Columbia University)	*University), Ron Berman (University of Pennsylvania)*	***Hemang Subramanian** (Florida International University)*
Evaluating and Improving Targeting Policies with Field Experiments Using Counterfactual Policy Logging *Duncan Simester (Massachusetts Institute of Technology), Artem Timoshenko (Massachusetts Institute of Technology), and **Spyros I. Zoumpoulis** (INSEAD)*	**p-Hacking and False Discovery in A/B Testing** ***Ron Berman** (University of Pennsylvania), Leonid Pekelis (OpenDoor), Aisling Scott, Christophe Van den Bulte (University of Pennsylvania)*	**Paying Consumers for Attention: An Analysis of Blockchain-enabled Online Advertising Models** *Michelle Y. Lu (McGill University), **Mengze Shi** (University of Toronto)*
Machine and Human: A Field Experiment of AI Chatbot Disclosure for Conversational Commerce *Xueming Luo (Temple University), **Siliang Tong** (Temple University), Zhe Qu (Fudan University), Zheng Fang (Sichuan University)*	**Digital Piracy, Extrinsic Incentives, and Writer Efforts** *Xiaolin Li (University of Texas at Dallas), Chenxi Liao (University of Texas at Dallas), **Ying Xie** (University of Texas at Dallas)*	**Algorithmic Pathways Depicting AI Routines for Customers' Purchase Decision Via Mobile Shopping Applications** ***Waymond Rodgers** (University of Texas, University of Hull), Wen-Ling Liu (The University of Hull), Thi M Nguyen (The University of Hull)*
Multi-Homing and Platform Competition: A Natural Experiment in the Daily Deals Market *Hui Li (Carnegie Mellon University), **Feng Zhu** (Harvard Business School)*	**Threats to Privacy versus Saving Money: A Multi-Period Panel Study of Consumer Choices in the Automobile Insurance Industry** *Miremad Soleymanian (University of British Columbia), Charles Weinberg (University of British Columbia), **Ting Zhu** (Purdue University)*	**Automation of Jobs and Political Polarization** ***Pinar Yildrim** (University of Pennsylvania), Maria Petrova (IPEG), Bledi Taska (Burning Glass Technologies)*
Avoiding Lemons in Search of Peaches: Designing Information Provision ***Pedro M Gardete** (Stanford University), Megan H. Antill (Stanford University)*	**Evaluating and Improving the In-game Anti-addiction System: Implications for Consumer Usage and Welfare** ***Xi Chen** (Erasmus University), Xueming Luo (Temple University), Cheng Zhang (Fudan University)*	**Strategic Automation and Decision-Making Authority** ***Mustafa Dogan** (Carnegie Mellon University), Alexandre Jacquillat (Carnegie Mellon University), Pinar Yildirim (University of Pennsylvania)*

6PM – 7 PM: Simmons A, Conference Reception

Sunday, Dec 9th, 2018

All rooms in The Tepper Quad

8.00 AM – 9 AM: *Registration & Breakfast

9 AM – 10.30 AM: Simmons A, Plenary Session 3, Chair: Alan Montgomery

Keynote Speaker	Title
Rajdeep Grewal (University of North Carolina)	Image Portfolio and Demand in the Sharing Economy
Daria Dzyabura (New Economic School in Moscow)	Visual Elicitation of Brand Perception
Sridhar Narayanan (Stanford University)	Attention, engagement, content creation and sharing on a social network: results from a field experiment
Lan Luo (University of Southern California)	Machine Learning of New Product Design, Prejudices, and Restaurant Survival

10.30 AM – 11 AM: Coffee Break

11 AM – 12:30 PM: Concurrent Sessions 3

Room 2610 Session 3A (Deep Learning, Predictive Analytics, & Consumer Engagement) *Dokyun Lee (Carnegie Mellon University),*	Room 2611 Session 3B (Multichannel Marketing: App-rooming, Peer Influence, & Conversions) *Peter J. Danaher (Monash University)*	Room 2700 Session 3C (Recommendation Systems, Analytics, & Search Models) *Marcel Goic (University of Chile)*
The Effect of Image and Text Sentiment and Complexity on Consumer Engagement with Brand-Themed User-Generated Content *Eunhee (Emily) Ko (Emory University),* **Douglas Bowman** *(Emory University)*	**Cosmopolitan Online Behaviors and Offline Travel Patterns** **Chenshuo Sun** *(New York University),* *Anindya Ghose (New York University),* *Xueming Luo (Temple University)*	**Investigation of Chinese online shopping behavior and Internet shopping platform characteristics** **Wang Xiao-yu** *(South China University of Technology):* *Ran Lin‑zan (South China University of Technology)*
Increasing Consumer Engagement with Firm-Generated Social Media Content: The Role of Images and Words **Eugene Pavlov** *(University of Washington),* *Natalie Mizik (University of Washington)*	**It's Free if You Want it: Measuring Cross-Channel Spillovers from Online User Engagement** **Adithya Pattabhiramaiah** *(Georgia Tech),* *Eric Overby (Georgia Tech), Lizhen Xu (Georgia Tech)*	**Binge Yourself Out: The Effect of Binge Watching on the Subscription of Video on Demand** *Miguel Godinho de Matos (Catolica Lisbon School of Business and Economics),* **Pedro Ferreira** *(Carnegie Mellon University)*
Deep Learning of Big Data and Field Experiment: Analytics for Customer Selection and Campaign Targeting **Kunpeng Zhang** *(University of Maryland), Xueming Luo (Temple University)*	**Multi-channel Conversion Attribution: A Machine Learning Approach** **Qingchen Wang** *(University of Amsterdam),* *Piet Pepperkorn (University of Groningen), Maarten Soomer (University of Amsterdam)*	**Streaming Analytics for Real-Time Customer Sentiment Determination and Reporting for Brick-and-Mortar Retailers** **Felix Weber** *(Universität Duisburg-Essen)*
Quantifying the Likelihood of Advertisement Skipping in YouTube using Neuroscience and	**App-rooming: Implications for Omnichannel Promotions**	**Recommendation Systems in Crowdfunding**

Survey Data **Moran Cerf** *(Northwestern University)*	*Siliang Tong (Temple University), Takeshi Moriguchi (Waseda University),* **Debashish Ghose** *(Temple University)*	**Lalit Jain** *(University of Washington)*
Focused Concept Miner (FCM): An Interpretable Deep Learning for Text Exploration **Dokyun Lee** *(Carnegie Mellon University), Emaad Ahmed Manzoor (Carnegie Mellon University), Zhaoqi Cheng (Carnegie Mellon University)*	**Advertising Effectiveness for Multiple Brands in a Multimedia and Multichannel Environment** **Peter J. Danaher** *(Monash University), Tracey S. Danaher (Monash University), Michael S. Smith (Melbourne Business School), Ruben Loaiza-Maya (Melbourne Business School)*	**Category Pricing Optimization Using Data Driven Constraints** *Luis Aburto (University of Chile),* **Marcel Goic** *(University of Chile)*

12:30 PM – 1:30 PM: Lunch

1:30 PM – 3:20 PM: Concurrent Sessions 4

Room 2610 Session 4A (Mobile Shopping, Media, & Targeting) *Wreetabrata Kar (Purdue University)*	Room 2611 Session 4B (Online Markets, & Mobile Wallets) *Navdeep Sahni (Stanford University)*	Room 2700 Session 4C (Online Compulsion, Social Media, & Middleware) *Milan Miric (University of Southern California)*
Effect of Accessibility of Offline Retailers on Mobile Shopping: Implications for Inequality in Emerging Markets **Xuebin Cui** *(Tsinghua University), Ting Zhu (Purdue University), Yubo Chen(Tsinghua University)*	**Expertise Assessment and Reputation Deflation in Online Labor Markets** **Marios Kokkodis** *(Boston College)*	**Vices Go Together: Product purchase after online compulsion** *Radek, Anatoli, Thomas,* **Koen Pauwels** *(Northeastern University)*
Content Monetisation and Preview Design **Dai Yao** *(National University of Singapore), Kaiquan Xu (Nanjing University)*	**How Platform Recommendation Algorithms Incentivize Sellers in Sharing Economy** *Zhijie Lin (Nanjing University),* **Siliang Tong** *(Temple University), Jing Li (Hong Kong Polytechnic University)*	**A Study on Social Media Influencers' Role in Consumer's Path to Purchase** *Falguni Vasavada-Oza (MICA),* **Khyati Jagani** *(Flame University), Nishanshi Sukla (IIM-Ahmedabad)*
Facilitating the chain of big data analytics capabilities to value co-creation: The role of marketing capabilities *Chu-Bing Zhang (Tianjin University of Finance and Economics),* **Yu-Dong Zhang** *(Nankai University), Dong-Jin Li (Nankai University)*	**Optimizing the Composition of Paid Content in a Freemium Model** **Daniela Schmitt** *(University of Mannheim), Florian Stahl (University of Mannheim), Raghuram Iyengar (University of Pennsylvania)*	**Do Your Social Contacts Make You a Better Borrower? A Field Experiment** **Tian Lu** *(Carnegie Mellon University, Fudan University), Xianghua Lu (Fudan University), Chong (Alex) Wang (Peking University)*
A Hidden Semi-Markov Model of Customer-Multichannel Engagement Dynamics **Sharmistha Sikdar** *(Cornell University), Giles Hooker (Cornell University)*	**Disruptive Potential of Mobile Wallets: Diffusion Modeling and Strategic Implications** **V Kumar** *(Georgia State University), Nandini Nim (Georgia State University), Amit Agarwal (Georgia State University)*	**The Impact of Social vs. Non-Social Referring Channels on Online News Consumption** *Sagit Bar-Gill (Tel Aviv University),* **Yael Inbar** *(Carnegie Mellon University), Shachar Reichman (Tel Aviv University)*
Customer Loyalty, Email Promotions, and Conversion: An Application of Machine	**A Field Experiment on Whether and How Free Sample Promotion Increase Purchase**	**The Language of Brands in Social Media: Mapping Brand Image Based on Distinctive Brand Language**

Learning on Targeted Promotions *James Chester Reeder, III (Purdue University),* **Wreetabrata Kar** *(Purdue University), Saayan Mitra (Adobe Research)*	**on Digital Retail Platforms** **Lin Boldt** *(University of Central Florida), Xiaoyi Wang (Zhejiang University)*	**Markers** **Vanitha Swaminathan** *(University of Pittsburgh), H. Andrew Schwartz (Stony Brook University), Rowan Menezes (Facebook), Shawndra Hill (Microsoft Research)*
Starting Cold: The Power of Social Networks in Predicting Non-Contractual Customer Behavior **Moran Cerf** *(Northwestern University)*	**Advertising and Search Engine Usage** **Navdeep Sahni** *(Stanford University), Charles Zhang (Stanford University)*	**Middleware and the Direction of Software Innovation** **Milan Miric** *(University of Southern California), Hakan Ozalp (VU Amsterdam)*

Conference Adjourns