Application for NBER Digitization Tutorial

Amy Pei

University of Southern California

I am currently a 6th year PhD student in Marketing at the Marshall School of Business at the University of Southern California. I have taken the following courses: Probability and Statistics for Economists, Applied Econometrics, Microeconomic Theory I, Microeconomic Theory II, Selected Issues in Economic Theory II, Game Theory, Industrial Organization, Empirical Industrial Organization, Economic Analysis of Social Networks, Contract Theory, Econometrics II, Empirical Methods for Industrial Organization, Marketing Consumer Behavior and Decision Making, Advanced Quantitative Models in Marketing, Marketing Models in Consumer and B2B Markets.

My research interests include social media strategy, curation algorithms, information economics, and digital platforms. Substantively, my research focuses on how firms, organizations, as well as other interested parties affect public opinion through manipulating information on digital platforms.

My dissertation, “Manipulating Consumer Opinion on Social Media Using Trolls and Influencers,” contains two essays. The first essay considers whether curation algorithms can help consumers in the presence of ``trolls" (fake accounts that promote a certain agenda). I show the conditions under which the platform may prefer to abandon curation altogether because curation introduces too much noise into the platform when trolls are present. The second essay studies how firms can optimally manipulate third party influencers by paying them to skew their product recommendations. I show when the firm prefers to allow the influencer to remain independent and when it prefers to pay for influencer's affiliation, which of course results in less credible content. There are two common themes in my essays. First, in both essays the consumers are aware of the possible presence of manipulation, which causes them to discount the advice that they receive online. Second, the manipulation is successful in skewing outcomes.

In another project, I study how firm-provided information in the form of official Q&A on a digital platform can affect consumer reviews. This feature may increase the valence of subsequent reviews by reducing product fit uncertainty. However, it may also have the unintended effect of lowering the incentive to write reviews and lead to a lower volume of reviews. In addition, buyers who experienced a poor match in the presence of the official Q&A might have a stronger incentive to leave reviews compared to those who experienced a good match. This is because the information provided through the official product Q&A is already mostly positive and neutral, and the potential review writers might believe that positive reviews provide less additional information compared to negative reviews.

My dissertation committee members are: Dina Mayzlin (chair), Joseph Nunes, Anthony Dukes, Lan Luo, and Odilon Camara.