Abstract

Despite widespread use in online transactions, rating systems only provide summary statistics of buyers' diverse opinions at best. This coarse nature of rating systems induces strategic behaviors from sellers. To analyze this strategic incentive and its consequences, we consider a dynamic lemons market where buyers share their evaluations through a

rating system and identify the seller-optimal equilibrium in this environment. The equilibrium exhibits an intuitive threshold structure where the seller offers a high price to

extract surplus when the belief is high while she holds a flash sale to garner good ratings when it is low. Occasional flash sales induced by the rating system introduce noise into the rating system, thereby impeding social learning, but also yield a non-trivial welfare effect that stands in sharp contrast to standard adverse selection models: all buyers are weakly better off with information asymmetry than without. Incentivizing buyers to leave ratings may backfire by exacerbating the seller's strategic behaviors.