The Fallacy of Fraudulent Reviews

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Extended Abstract

The results of a 2014 consumer survey (Anderson 2014) indicate that 88% of online customers have the same trust in online user reviews as they have in personal recommendations. A long stream of research has shown the impact of such reviews in influencing product perception and sales (Forman et al. 2008). As such, online user reviews have turned into a hot commodity in the business of selling products and services. In response, a market for engineered (fraudulent or spam) positive reviews seems to be created. This fraudulent market has caught the attention and interest of multiple news outlets (NY Times, WS Journal and many others) focusing on the pervasiveness of spamming in review forums and concluding that such forums are deeply flawed. Researchers have devised a multitude of approaches to identify spam reviews (Mayzlin et al. 2012, Ott et al. 2011 among others) to help mitigate the so-called failures of review systems. In this paper, I argue that the prevalent argument that review forums are plagued by fraudulent reviews that ultimately dilutes the quality of information is nothing but a fallacy. I replicate the performance of three mainstream spam review detection algorithms. The first algorithm is based on identifying review trends and then detecting reviews that significantly and consistently depart from these trends; authors of those reviews are then labelled as spammers. The second algorithm analyses reviewers' behaviour and detects those that don't conform to the typical behaviour labelling them as spammers. The third and last method detects spammer groups, those who consistently post reviews concurrently and labels them as spammers. Once these review spammers are identified by the respective algorithms, I cross-check them against a list of authentication mechanism that review forums establish (such as whether the author of the review is a valid purchaser). I find that algorithms over-classify reviewers as spammers. I also find that review forums are extremely effective at swiftly curating reviews to eliminate spams. In doing so, review forums ensure more or less the integrity as well as the quality of reviews and consequently ensure that customers keep coming back for trustworthy and authoritative reviews to help them make informed product purchases.

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