She loves me, she loves me not: The analytics behind finding true love with online dating

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Credit: Institute for Operations Research and the Management Sciences

Looking for love online? You are not alone. Nearly 50 percent of the American public knows someone who has used an online dating site and 5 percent of Americans who are married or in committed relationships today met their significant other online. But with so many different online dating platforms, how can users know which one will best meet their needs? According to a new study in the INFORMS journal *Management Science*, it all depends on if you are comfortable with rejection. If not, be prepared to pay more.

The study, "Competing by Restricting Choice: The Case of Search Platforms," explained that most sites, such as Match.com, compete by building the largest user base possible, and provide users with access to unlimited profiles on the platform. Others, such as eHarmony.com, pursue user growth with the same intensity, but allow users to only view and contact a limited number of others on the platform. However, despite the limited choice, eHarmony's customers are willing to pay an average of 25 percent more than Match's customers.

The study authors, Hanna Halaburda of the Bank of Canada and New York University, Mikolaj Piskorksi of IMD Business School, and Pinar Yildirim of the University of Pennsylvania, created a stylized model of online, heterosexual dating which found that increasing the number of potential matches has a positive effect due to larger choice, but also a negative effect due to competition between users of the same sex.

Therefore by offering its members access to a large number of profiles, Match's users are also more likely to experience rejection, as each of their potential matches will have access to a larger number of options, increasing the competition among members. With access to only a limited number of profiles, eHarmony users are more likely to successfully and more rapidly identify a match with another user, who because of limited choice, is less likely to reject them.

"Online dating platforms that restrict choice, like eHarmony, exist and prosper alongside platforms that offer more choice, like Match.com," said Halaburda. "On a platform that offers more choice, agents also face more competition as their candidates also enjoy a larger choice set."

Ultimately, for online dating users who can tolerate rejection and aren't bothered by a potentially longer timeframe to identify a match, Match.com provides much greater choice of options. However, for users who are looking to more quickly identify a potential mutual match,

eHarmony limits competition that may result in rejection.

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