
Do Dating Apps Really Want You to Find Love?



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Matchmaking services charging a monthly fee to fill a personal or professional void are in a somewhat conflicted position.

Dating apps are often blamed for the death of romance. We usually think of a Tinder or OkCupid user as someone absent-mindedly swiping through photos of nearby singles to find an easy hookup. But **recent data from marketing firm SimpleTexting** tells a different tale. Of the 500 dating app users the firm surveyed, a significant number – 44 percent of women and 38 percent of men – said they were looking for a committed relationship. And 36 percent of all users reported finding a relationship of at least six months’ duration through an app.

So why don’t we hear more about the successful matchmaking being done on these platforms? Perhaps because there is often more money to be made in serial flings than lasting relationships. Customers engaging in the former will keep paying monthly subscription fees, while those who enter into the latter are more likely to delete their account. So dating apps may not be strongly motivated to resist being pigeonholed as hookup facilitators.

The same incentives may also affect the extent to which online dating platforms choose to innovate. In pairing up their users, most use proprietary algorithms that are ostensibly cutting-edge. But if improvements to the system lead to more customers finding long-term love matches (and therefore abandoning the service), why should they offer the most advanced technology?

As reported in our recently published paper in *Journal of Marketing Research* (co-authored by Kaifu Zhang of Carnegie Mellon), anecdotal evidence suggests that this can be a relevant issue for matchmaking services of all types, not just online dating services. A senior executive in the recruiting industry once complained to us that his firm's high-quality matchmaking technology was sending clients home happy faster than his sales team could replace them, posing a major growth challenge. As a result, the firm decided to try out less effective technology on an experimental basis.

Our paper uses a game-theoretical framework to tease out the complex dynamics behind matchmakers' financial incentives. It models four prominent features of real-world markets: competition, network effects, consumer patience and asymmetry within a two-sided user base.

Competition

Some of the most technologically innovative companies are arguably monopolies (Facebook, Google, etc.). According to standard academic thought, competition limits innovation incentives by reducing individual companies' ability to raise prices based on improved service. But with a subscription-based matchmaking service, monopolies must also consider the cost of satisfying customers too quickly. The more monopoly matchmakers are able to charge, the less willing they are to part with fee-paying customers. Hence, the incentive to perfect their technology is weakened, especially when consumers highly value the dating service.

On the other hand, our model finds that in a robust market, intense competition keeps profit margins relatively low and incentivises matchmakers to continually refine their technological offering for competitive advantage.

Network effects

For users to find matches *en masse*, dating apps need both good technology and a large subscriber base. But as we've already noted, there is a fundamental tension between these two features. Efficient matchmaking generates more deleted accounts, thus fewer subscribers.

Our model indicates that network effects – i.e. the benefits accruing to a service solely due to the size of its user base – activate this tension, resulting in strong incentives to underdeliver on technology when network effects increase. Consequently, users should be a bit sceptical when platforms claim to possess both best-in-class technology and a teeming crowd of singles already in the network.

Consumer patience

Whether one is intent on immediately finding someone who is marriage material or is willing to settle for a fleeting liaison is a purely personal question. Yet according to our model, consumer patience matters for matchmakers – especially in a competitive market environment.

A user's readiness for romantic commitment will be reflected in the price they're willing to pay for matchmaking services. Determined monogamists can't wait to find love; they will pay a high premium for a service that promises to promptly deliver "The One". However, singles who are happy to keep their options open have the luxury of being stingy. They'll stick with a cheaper, less technologically advanced service until they feel ready to take the plunge, at which time they'll switch to a more effective matchmaker. So we conclude that as consumer patience increases, matchmakers have less incentive to improve their technology. In other words, a low-commitment culture can be a drag on innovation.

Asymmetric two-sided market

Matchmakers differ from other service providers in that their product and their customers are, in a sense, one and the same. They exist to connect two classes of users – in a heterosexual dating context, that would be men and women – in ways that produce intangible satisfactions. Sharing economy platforms such as Uber and Airbnb, too, add value by connecting customers, but there is a tangible product (rides, rooms, etc.) in the middle.

In either case, though, there is always the danger of a lopsided market. For example, if male users of a dating app value the dating service more highly

than female users do, it is not optimal for the dating app to charge both sides equally. One way to capitalise on the asymmetry would be to either charge men more or women less. Our model found that monopoly matchmakers could get away with raising fees for the men in this example, because they have the aforementioned pricing power. In a competitive scenario, matchmakers would have to fight to attract the more valuable female customers, and therefore should offer women lower fees as compared to men.

Implications

Let's be clear: We are not claiming that matchmaking firms are deliberately providing substandard technology. After all, they would not survive long if they could not satisfy their customers. But our paper uncovers contradictory incentives that, in some cases, may make innovation more risky and less lucrative.

We also highlight some potential questions about subscription-based business models. Services charging a monthly fee to fill a personal or professional void are in a somewhat conflicted position. A better alignment of incentives would arise from a commission-based model. In contexts where commissions would be impractical (such as B2B marketing), a sizeable up-front fee covering a longer time period would do more to alleviate concerns about customer loss than more modest and frequent fees. Indeed, high-end matchmaking sites such as Janis Spindel's Serious Matchmaking and Selective Search work this way.

Also, our findings regarding consumer patience may be of interest for policymakers. If it's easier for companies to get away with underdelivering on technology when consumers are relatively patient, then cultivating more demanding consumers may ultimately enrich the innovation environment.

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