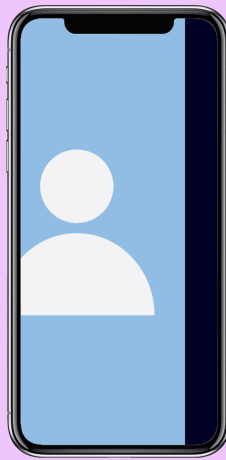




Sales & Marketing



# To Make a Profit, Dating Apps Must Leverage Data Differently

by Ting Li and Rodrigo Belo

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**The course of true love never did** run smooth, as Shakespeare once said. That there are more than 8,000 dating sites in the world dedicated to bringing people together is a testament to the fact that — even in 2021, with the most advanced matching algorithms — finding a partner is not easy.

But while users of dating apps are often looking for one special someone, the chief marketing officers of these apps need to attract

millions of people. And like many network businesses, dating sites must cope with a dilemma: grow the network or grow revenue? A network business needs to succeed, of course, but to attract new users, dating sites often trade revenue to grow their membership by exchanging access to premium features as a kind of commission for a successful referral.

Unfortunately, the value of these referrals is not always clear. Although dating app algorithms are good enough that in 2019, 39% of all couples in the U.S. said they met online and in 2020, 270 million adults worldwide subscribed to a dating site (almost double the number from five years ago), most sites do not have a clear idea of how profitable referred customers are compared to the friends who invited them to join the site. Ironically, given the data-driven nature of the business, dating app marketers generally have to guess whether new members recruited by friends who already belong to the site will be less active on the site and less interested in paying for premium features.

But that may be changing. As a dating site for young professionals, we've often faced this tradeoff too — and we decided to deal with it in an original, data-driven way that took the guesswork out of striking a balance between revenue and reach.

### **Fixing freemium's flaw**

Like many network businesses, the site ran on a freemium model — free use of the basic features, subsidized by users who pay for premium packages. But to encourage growth, the site also encouraged users to introduce friends to the site in return for free access to those special features that are intended ultimately to be the site's profit center.

This creates a dilemma for most dating sites. A social referral offer generates some referrals from users who would not have paid for the

premium features, effectively increasing the number of users in the platform at low cost. It also attracts referrals from users who would have paid but given the option, prefer to work for their subscription, generating more referrals but fewer paying users. Moreover, the number of successful referrals users are required to make before they can access premium features (called the referral threshold) can have important effects on users' behavior. For example, if referrers end up inviting people who are less likely to subscribe to premium features, their addition to the platform could harm the value of the community in the long run.

We wanted to find out whether it would be possible to design referral programs so that they can balance growth without reducing the profitability of their user base.

Working closely with the platform executives, we conducted a large-scale randomized field experiment for two years on the platform to assess whether raising the number of referrals required for the member to gain access to premium features changed the level of engagement of those new referred members.

### **What the evidence told us**

The benefits of referral-driven growth typically come at a cost: as the number of referred-users in the population grows, their collective level of engagement tends to fall. One possible explanation for this behavior is that when people join a platform, they will associate first with their friends and when their original friend on the site (the referrer) leaves — turnover on dating sites tends to be high — they lose some of their initial interest too. Another possible explanation is that when asked for more referrals, users take longer to fill their quota. This means they only get a chance to access premium features at a later stage of their

membership, leading them to engage less with the platform and provide lower value to other users as well.

But our experiment showed that introducing referral programs in freemium platforms can contribute significantly to the growth of the customer network without reducing its profitability. Raising the number of successful referrals needed to win free access to premium features did not have an impact on the relative activity of their converts. Contrary to our assumption that asking people to invite more friends would affect the quality of the referrals in terms of their readiness to participate on the site and subscribe to premium features, we found that these new members were as engaged as those invited by users in referral programs that had a lower threshold. In fact, in one respect, these new recruits were better: not all of them were as open to introducing their friends to the site in exchange for premium features as their friend who sent the original invitation, which meant that — counterintuitively — total revenue increased when we raised the number of successful referrals required for free access to the premium features.

### **Tweak the system**

A voluntary referral program can be a very effective strategy, as it allows users to self-select the role that best suits them. Tweaking referral options can effectively segment the customer base between users who are motivated by access to premium features in exchange for referrals and people who would rather pay for those features. A platform that uses a freemium business model with a referral option could accelerate word of mouth for the app by explicitly requesting users to invite their friends and acquaintances to subscribe to premium services while at the same time reserving some special features as pay-only to help maximize revenue.

We also found that adding additional referral requirements in exchange for premium features did not disincentivize some users. This suggests platforms could consider using this information to adjust referral requirements for different user groups in order to increase user acquisition and payment without hurting overall engagement. These tweaks could be dynamic: the platform could start by assigning a freemium plan to all users, and after assessing users' behavior during the first weeks, decide whom to give the option of joining its referrals-for-features program.

In addition, our results show that individuals value having their friends on the platform. In this case, social referral programs designed to enhance the shared experience of online dating (for example, by organizing offline activities) could be particularly effective in increasing platform engagement.

## Looking for the right 1011101011

Everyone talks about data-driven decision-making, but many marketing campaigns are still run by gut instinct rather than by the numbers. Even for a business as data-savvy as a sophisticated dating site, learning to take advantage of the opportunity for analysis offered by its network takes some time. But as this case suggests, it's worth the trouble. In other words, if you're the kind of businessperson who likes to avoid unnecessary risks, maximize profitability, and meet new customers, you should be on the lookout for a sensitive data scientist who understands your business.



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