

I. Meeting others



1. Love at first site: romance algorithm predicts if you'll be lucky in love

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5 WHEN Rashied Amini **split up** with his girlfriend of two years, she said she'd need to see a cost-benefit analysis before she would consider taking him back. At the time, the engineer laughed off the idea. Now, a few months later, he's about to launch Nanaya, an online tool that calculates your **odds** of being lucky in love.

10 "I thought, 'I've made cost-benefit models in the past, let me see if I can start doing something like this'," Amini says. "I was going through a break-up and it was something to turn my attention to." [...] With Nanaya, he wants to help people find success in their personal lives. The idea is to **forecast** your probability of finding a suitable romantic match if you're single, or if not, of finding someone who is a better match.

15 Amini is far from the first to **tot up** the pros and cons in search of insight into romance. Before Charles Darwin proposed to Emma Wedgwood in 1838, he wrote his own cost-benefit analysis on the back of an old letter. Marriage would be time-consuming and expensive, Darwin noted, but it did offer constant companionship, "better than a dog anyhow". In the decades since, many have attempted to distil the messy reality of life and romance into clean formulae, from dating site OkCupid, which **mines** the data of its millions of users for telltale patterns, to a mathematical model from the University of Washington
20 that can predict whether a couple will get divorced.

25 For Nanaya to **assess** your likelihood of finding a good match, you fill out a detailed questionnaire. First, there's a personality test supplied by Traitify in Baltimore, Maryland, which pinpoints different facets of your personality and the characteristics you'd like in a partner by asking you to pick from a series of images. Another set of questions then identifies how likely you are to meet new people in your daily life. [...] Nanaya spits out scores that measure your selectivity, how much your social network could grow with a given mate, your overall romantic opportunity, and a graph of your prospects over the next few years. Those who are already in a relationship will also be asked a set of questions that scores them on their compatibility and happiness with their partner.

30 Amini tested Nanaya's algorithm by meeting up at coffee shops with people he had recruited as volunteers for the study through ads on classifieds site Craigslist. He asked them detailed questions about their love lives and ran their data. In some ways, he says, **a human life turned out to be more difficult to tackle than a space project.**

35 "I want people to be open-minded when they're going into it, but obviously I also don't want people following it blindly," says Amini. "Nanaya helps you to reflect on what you want in life."

Some psychologists are sceptical about Nanaya's potential. Attraction between people is difficult to predict, says Harry Reis, a psychologist at the University of Rochester in New York. "You simply can't do it from paper and pencil characteristics."

40 Paul Eastwick at the University of Texas at Austin agrees that the program is probably incomplete. "Matchmaking algorithms are probably possible in principle, but they would likely need to incorporate data **assessed** after, not before, two people have met each other," he says.

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2. I can read you like an open Facebook

45 Be careful what you “like” on Facebook. You’re opening a small window on your soul.

A machine-learning algorithm can now predict human personality types using nothing but what people like on the social media site. A team at Stanford University in California and the University of Cambridge used data from a questionnaire filled out by 86,000 people that identified their “big five” personality traits. The results were correlated with their
50 Facebook activity.

On the basis of between 100 and 150 Facebook likes, the team’s algorithm could determine someone’s personality more accurately than could their friends and family, and nearly as well as their spouse.

55 “In the past, my research has looked at how accurately people can judge each other’s personalities,” says Youyou Wu at Cambridge, one of the study’s authors. “It’s surprising that computers can do better using just one piece of information – likes.”

In 2013, the same group found that Facebook likes can predict private personal information like sexuality.

60 David Funder of the University of California, Riverside, says predicting a big-five score is impressive, but it is just one component of personality. “This is a very broad way of describing human personality. It’s useful, but not intimate,” he says. “It doesn’t really comprise understanding on any deep level.”