

ABOUT THE AUTHOR

ROBERT EPSTEIN is a contributing editor for *Scientific American Mind* and the former editor in chief and current West Coast editor of *Psychology Today*. He received his Ph.D. from Harvard University and is a longtime researcher and professor. His latest book is *The Case against Adolescence: Rediscovering the Adult in Every Teen* (Jossey-Bass, 2007). He is working on a book entitled *Making Love: How People Learn to Love, and How You Can Too*. Epstein has served as a paid consultant to Engage.com, and *Psychology Today* is affiliated with True.com.



From the [February 2007 Scientific American Mind](#) | [11 comments](#)

The Truth about Online Dating

The hype is huge, and the findings are somewhat disturbing--but the future of online dating looks good

By [Robert Epstein](#)

About two years ago I arranged to meet for coffee with a woman I had corresponded with online. I arrived early and sat at a table in a conspicuous spot. After a few minutes, a woman came to my table, sat down and said with big smile, "Hi, I'm Chris!"

But Chris was not the woman in the online photos. This wasn't a question of an age discrepancy or a new hairdo. She was a completely different woman. Chris was in marketing, you see, and to her it was simply a good strategy to post photographs that would draw in as many "customers" as possible. I never said a word about the photos. I just enjoyed our conversation and the refreshments. A few weeks later I noticed that Chris had replaced the photos with those of yet *another* woman.

In the U.S. alone, tens of millions of people are trying to find dates or spouses online every day. How accurate are the ads they find? And just how successful is online dating compared with conventional dating? These and other questions have recently stimulated a small explosion of studies by social scientists. The research is quickly revealing many surprising things about the new world of online dating, and some of the findings could be of great value to the millions who now look to the [Internet](#) to find love.

Deception at Light Speed

Experiences such as the one I had with Chris are multiplying by the thousands: some people online lie quite drastically about their age, marital or parental status, appearance, income or profession. There are even Web sites, such as www.DontDateHimGirl.com, where people go to

gripe, and a few lawsuits have been filed against online services by disgruntled suitors. Just how bad is deception in online dating?

To put this issue in context, bear in mind that deception has always played at least a small role in courting. One could even argue that deception is a *necessary* part of wooing a potential partner ("Yes, I *love* sports!") and even of forming successful long-term relationships ("No, that dress doesn't make you look fat at all!").

But cyberspace introduces a host of new possibilities. Survey research conducted by media researcher Jeana Frost of Boston University and the Massachusetts Institute of Technology suggests that about 20 percent of online daters admit to deception. If you ask them how many other people are lying, however--an interviewing tactic that probably gets closer to the truth--that number jumps to 90 percent.

Because self-reported data can be unreliable, especially those from people asked to confess bad things about themselves, several researchers have sought objective ways to quantify online deception. For example, psychologist Jeffrey Hancock of Cornell University and [communications](#) professor Nicole Ellison of Michigan State University bring people into a lab, where they measure height and weight and then check the numbers against those in their online profiles. The preliminary data suggest that, on average, online profiles shave off about five pounds and add perhaps an inch in height. According to Ellison, although deception is "fairly common, the lies are of a very small magnitude." On the other hand, she says that the shorter and heavier people are, the bigger the lies.

In another attempt to collect objective data on deception, economists Guenter Hitsch and Ali Hortaçsu of the University of Chicago and psychologist Dan Ariely of M.I.T. compared the heights and weights of online daters with the same statistics obtained from national census data. Like Hancock and Ellison, they found that online height is exaggerated by only an inch or so for both men and women but that women appear to understate their weight more and more as they get older: by five pounds when they are in their 20s, 17 pounds in their 30s and 19 pounds in their 40s.

For men, the major areas of deception are educational level, income, height, age and marital status; at least 13 percent of online male suitors are thought to be married. For women, the major areas of deception are weight, physical appearance and age. All of the relevant research shows the importance of physical appearance for both sexes, and online daters interpret the absence of photos negatively. According to one recent survey, men's profiles without photos draw one fourth the response of those with photos, and women's profiles without photos draw only one sixth the response of those with photos.

Online daters often regret telling the truth, feeling that too much honesty creates a bad impression.

If you are a Garrison Keillor fan, you have probably heard about the fictional Lake Wobegon on National Public Radio, where "all the women are strong, all the men are good-looking, and all the children are above average." In the online dating community, similar rules apply: in one study, only 1 percent of online daters listed their appearance as "less than average."

Rationale for Falsehoods

Why so much inaccuracy? One theory, formulated in the late 1980s and early 1990s by Sara Kiesler and her colleagues at Carnegie Mellon University, suggests that by its very nature

"computer-mediated communication" is disinhibiting, causing people to say just about anything they feel like saying. Because people typically use screen names rather than real ones, their ramblings are anonymous and hence not subject to social norms. There are also no physical cues or consequences--no visible communication gestures, raised eyebrows, grimaces, and so on--to keep people's behavior in check. As a result, online daters tend to construct what Ellison and her colleagues Jennifer Gibbs of Rutgers University and Rebecca Heino of Georgetown University call an "ideal self" rather than a real one. A study published recently by Ellison and her colleagues even suggests that online daters often regret it when they do tell the truth, feeling that too much honesty, especially about negative attributes, creates a bad impression.

There are also straightforward, practical reasons for lying. One recent study showed that men claiming incomes exceeding \$250,000 got 151 percent more replies than men claiming incomes less than \$50,000, for example. Many women are quite open about listing much younger ages, often stating in the text of their profiles that they have listed a younger age to make sure they turn up in searches. (Because men often use age cutoffs in their searches, women who list ages above that cutoff will never be seen.)

My research assistant Rachel Greenberg and I have examined the age issue by plotting a histogram of the ages of 1,000 men and 1,000 women selected at random from the national database of Match.com, arguably now the largest of the online matchmaking services. We speculated that from age 29 on--the point at which people in our culture tend to become sensitive about growing older--we might see some distinctive patterns in the distribution of ages. For men, a small spike appeared in the distribution at 32 and a large one at 36. The number of men calling themselves 36 was dramatically higher than the average frequency of men between the ages of 37 and 41.

For women, we found three clear age spikes at 29, 35 and 44. The difference between the number of women claiming to be 29 and the average frequency of women claiming to be between ages 30 and 34 was nearly eight times larger than we would expect by chance. Apparently women at certain ages are reluctant to reveal those ages--and certain numerical ages are especially appealing, presumably because our culture attaches less stigma to those ages.

Tests That Fail

I have been a researcher for about 30 years and a test designer for nearly half those years. When I see extravagant ads for online tests that promise to find people a soul mate, I find myself asking, "How on earth could such a test exist?"

The truth is, it doesn't.

For a psychometric evaluation to be taken seriously by scientists, the test itself needs to clear two hurdles. It needs to be shown to be reliable--which means, roughly, that you can count on it to produce stable results. And it needs to be shown to be a valid measure of what it is supposed to be measuring. With a test that matches people up, such validity would be established by showing that the resulting romantic pairings are actually successful.

Criteria for establishing test reliability are quite rigorous. Once relevant data are collected, the results are typically submitted to the scientific community for scrutiny. A peer-reviewed report (one vetted by other knowledgeable researchers in the field) is ultimately published in an academic journal.

Several online services are now built entirely around claims that they have powerful, effective, "scientific" matchmaking tests--most notably eHarmony.com, promoted by clinical psychologist Neil Warren; PerfectMatch.com, promoted by sociologist Pepper Schwartz of the University of Washington; and Chemistry.com (a recent spin-off of Match.com), promoted by anthropologist

Helen Fisher of Rutgers. But not one of the tests they offer has ever been subjected to the type of outside scientific verification that I have described.

Why would a major company such as eHarmony, which claims to have 12 million members, *not* subject its "scientific, 29-dimension" test to a scientific validation process? In 2004 eHarmony personnel did present a paper at a national convention claiming that married couples who met through eHarmony were happier than couples who met by other means. Typically such a paper would then be submitted for possible publication in a peer-reviewed journal. But this paper has still not been published, possibly because of its obvious flaws--the most problematic being that the eHarmony couples in the study were newlyweds (married an average of six months), whereas the couples in the control group (who had met by other means) were way past the honeymoon period (married an average of 2.1 years). (eHarmony personnel, including its founder, Neil Warren, did not respond to requests to be interviewed for this article.)

In 2005, using eHarmony's own published statistics, a team of credible authorities--among them Philip Zimbardo, a former president of the American Psychological Association--concluded in an online white paper: "When eHarmony recommends someone as a compatible match, there is a 1 in 500 chance that you'll marry this person.... Given that eHarmony delivers about 1.5 matches a month, if you went on a date with all of them, it would take 346 dates and 19 years to reach [a] 50% chance of getting married." The team also made the sweeping observation that "there is no evidence that ... scientific psychology is able to pair individuals who will enjoy happy, lasting marriages."

Think about how difficult this task is. Most online matching is done, for example, by pairing up people who are "similar" in various respects. But you do not need to look farther than your own family and friends to know that similarity is not always a good predictor of success in a relationship. Sometimes opposites really do attract. How could an online test possibly determine whether you should be paired with someone similar or with someone different, or with some magic mix?

And even if validated predictive tests eventually appeared online, how could such tests possibly predict how two people will feel when they finally meet--when that all-important "chemistry" comes into play? Oddly enough, eHarmony does not even ask people about their body type, even though research shows unequivocally that physical appearance is important to both men and women.

But the biggest problem with online testing is the "false negative problem." A test that determines in advance whom you might meet and whom you will *never* meet necessarily fails to allow certain people to meet who would adore each other. The good news, though, is that according to psychologist Larry D. Rosen of California State University, Dominguez Hills, "In our studies only 30 percent of the people say they use [online tests] at all, and most of those people find them ridiculous."

High Hopes and Poor Odds

Advertising materials from the largest online dating services--Match, eHarmony, True.com and Yahoo! Personals--suggest that more than 50 million Americans are now using such services (assuming relatively little overlap in membership) and that satisfaction levels are high. But recent independent studies suggest that only 16 million Americans were using online dating services by late 2005 and that satisfaction levels were low. Based on a phone survey with more than 2,000 people, Jupiter Research reports that "barely one quarter of users reported being very satisfied or satisfied with online personals sites." Another extensive survey conducted by Pew [Internet & American Life Projects](#) suggests that 66 percent of Internet users think that online dating is a "dangerous activity."

According to Trish McDermott, a longtime spokesperson for Match and now an executive at Engage.com, the confusion over membership figures results from the fact that while a large company such as Match might advertise that it has 15 million members, less than a million are actually paying customers. The others have full profiles online--an important marketing draw--but cannot respond to e-mails. This is one of several reasons, according to McDermott, why many paying members get frustrated by a lack of response to their e-mails; the vast majority of people in the profiles simply cannot respond.

One of my greatest concerns about online dating has to do with what I call "the click problem." We already have a commitment problem in America, one of several reasons why roughly half of first marriages and about two thirds of second marriages here end in divorce. Online dating probably is making things worse.

No matter what Hollywood tells us, long-term relationships take patience, skill and effort. In cyberspace, unfortunately, the bar is so long and the action so quick that few people are willing to put up with even the slightest imperfection in a potential mate. If someone is the wrong height or wears the wrong shoes or makes the wrong kind of joke, he or she is often dismissed instantly. After all, it is a simple matter to go back and click, with tens of thousands of potential mates ready to fill the void.

Virtual Dating and More

These many problems notwithstanding, the future of online dating and matchmaking looks bright. Interest is growing rapidly, and intense competition will force rapid changes in the kinds of services that are offered. In 2001 online dating was a \$40-million business; by 2008 that figure is expected to break \$600 million, with more than 800 businesses, both large and small, vying for every dollar.

The online dating model is already developing rapidly. Phase one--the Long Bar--is exemplified by companies such as Match, True and Yahoo! Personals. Phase two--the Long Test--is the bread and butter of companies like eHarmony and PerfectMatch. But phase three is already well under way.

Virtual dating takes care of the safety concerns that prevent many people from meeting in person.

Engage, for example, allows members to bring friends and family with them online, all of whom can prowl the profiles, checking people out and matching them up. Members can also rate the politeness of their dates, as well as the accuracy of the profiles. This is the new "community" approach to online matching--a naturalistic, social corrective for the deception that plagues cyberspace. The community approach is also evident in the sprawling new social networking sites such as Facebook, Friendster and MySpace; MySpace alone has more than 100 million members. Although the social networking sites appeal mainly to young users and are not strictly dating sites, they bring the community back into whatever dating is generated there. On mega dating sites such as eHarmony and Match, dating is done in complete social isolation, a matter of great concern to Ellison and other researchers in this area.

And the next step in online dating--"virtual dating"--is already being developed. Using special software developed by the M.I.T. Media Lab, researchers Frost, Ariely and Harvard University's Michael I. Norton recently reported that people who had had a chance to interact with each other (by computer only) on a virtual tour of a museum subsequently had more successful face-to-face meetings than people who had viewed only profiles. One major bonus: virtual dating takes care of the safety concerns that prevent many people from meeting in person.

Take this just a small step forward: people meeting and chatting in a romantic virtual cafe on the Champs-Élysées in Paris--seeing and hearing each other online as they interact in this beautiful setting. Andrew Fiore, a doctoral candidate at the University of California, Berkeley, who studies online dating, suggests that in a few years we will even be able to add physiological signs to the experience--the sound of your date's heartbeat, perhaps?

ABOUT THE AUTHOR(S)

ROBERT EPSTEIN is a contributing editor for *Scientific American Mind* and the former editor in chief and current West Coast editor of *Psychology Today*. He received his Ph.D. from Harvard University and is a longtime researcher and professor. His latest book is *The Case against Adolescence: Rediscovering the Adult in Every Teen* (Jossey-Bass, 2007). He is working on a book entitled *Making Love: How People Learn to Love, and How You Can Too*. Epstein has served as a paid consultant to Engage.com, and *Psychology Today* is affiliated with True.com.