From Russia, with Love

How I got fooled (and somewhat humiliated) by a computer
BY ROBERT EPSTEIN

IT ALL STARTED with an online dating service. I was looking for a date. Like most men (we dogs), I made my initial judgment based largely on a photo. Yes, that's shallow, and when one is online, it's also fairly stupid because photos are all too easy to fake. But this time, I *really* blew it.
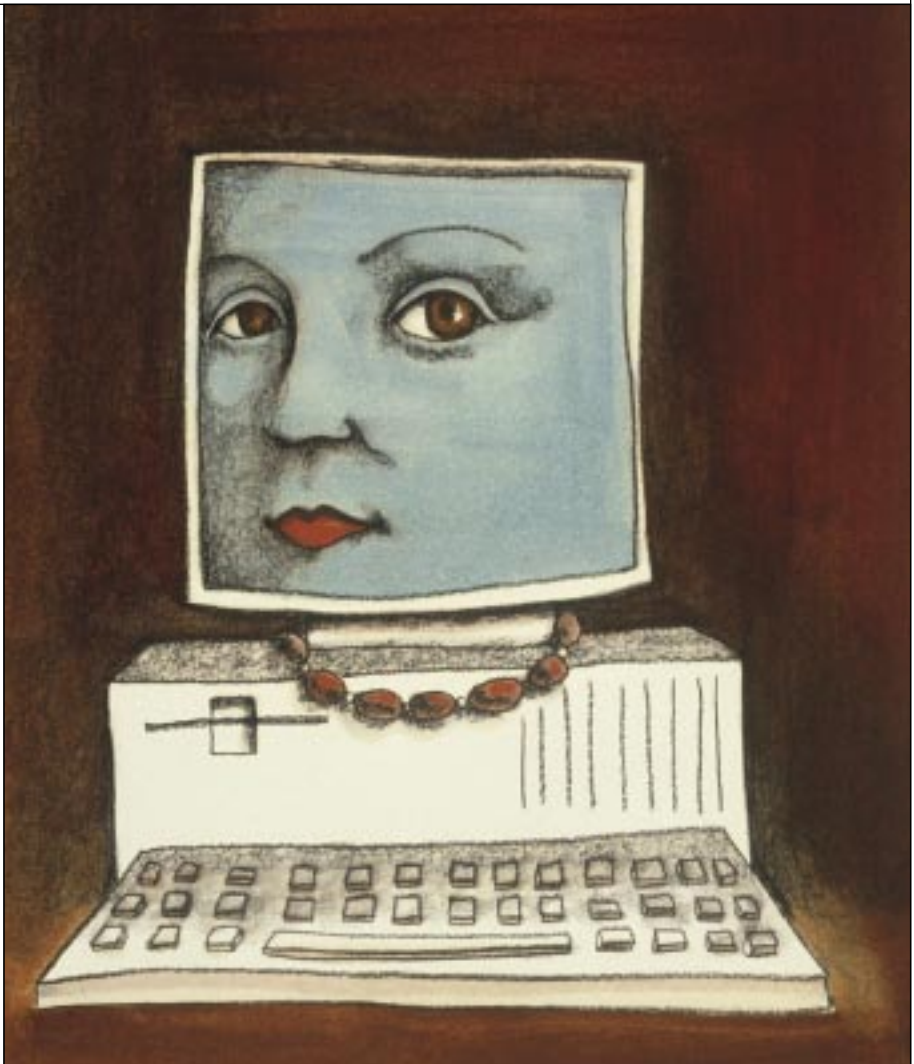
The main photo showed a slim, attractive brunette, supposedly living in California not far from me. She didn't say much about herself, and her English was choppy, suggesting that she was a recent immigrant. That's okay, though; all four of my grandparents were from Russia, after all.

Her screen name was a variation on "Amélie Poulain." Had I been more of a European film buff, this moniker would have worried me. *The Fabulous Destiny of Amélie Poulain* is a 2001 French film starring Audrey Tautou as Amélie, a strange young woman who has a crush on a man but is incapable—*completely* incapable—of communicating with him in conventional ways. Hmm.

She responded to my e-mail quite affectionately—and also admitted that she really lived in Russia, not California. Normally I find that kind of distance daunting, but her photos were so attractive and her e-mails so warm that I continued to correspond with her. She sent me her real name; I'll call her "Ivana."

Here is an example of the kind of e-mail I received from her:

> I have told to mine close friends about you and to my parents and them happy that I really interested someone and regardless of the fact that not here in Russia and all from them happy for me, that I have met you. I have very special feelings about you … It—in the same way as the beautiful flower blossoming in mine soul … I only cannot explain … but I confident, that you will understand me so I wish to know that makes you, think, and I shall wait your answer, holding my fingers have crossed …

After two months of e-mails I started to get, well, not suspicious exactly but at least concerned. Online dating can be a slow, frustrating process [see "The Truth about Online Dating," by Robert Epstein; SCIENTIFIC AMERICAN MIND, February/March 2007]. Our romance was progressing especially slowly: no phone calls, very vague talk on Ivana's part about get-

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ting together—no real *movement*.

I also noticed that Ivana's letters seemed a bit redundant and, let's say, narrow in scope. She wrote, over and over, about her interactions with her mother and her friends, but she never brought up a million other things: politics, movies, music, books, fashion, you name it. More important, when I

nearly four months with a computer program—specifically, a chatterbot, which is a program designed to converse with people over the Internet.

I had been fooled partly because I wasn't thinking clearly: I had wanted to believe that a beautiful young woman really cared about me. But let's face it—this was also darned clever

and I certainly should have known better in my exchanges with Ivana. I am, you see, supposedly an expert on chatterbots. I have been a computer nerd most of my life, and in the early 1990s I directed the annual Loebner Prize Competition in Artificial Intelligence, a contest in which judges try to distinguish between people and computer

(Like all good scientists, I am trying hard now to turn **lemons into lemonade**.)

made very specific observations that presumably would have been of interest to her—for example, a comment about Russian president Vladimir Putin's latest crackdown—she seemed to just ignore me. Hmm. Now *that* should have tipped me off.

A Walk in January

Finally, in a January e-mail Ivana mentioned all the nice things she was saying about me to her friend while they were on a walk in a park. I wondered: Do people really go for walks in Nizhniy Novgorod—a large city about 200 miles from Moscow—in the dead of winter? A weather site on the Internet told me that it was 12 degrees Fahrenheit and snowing heavily when she was supposedly on her walk. I questioned her about that—*but she ignored my query.*

I started scrutinizing her subsequent e-mails very carefully. Sure enough, all the signs were there: the content of Ivana's notes was generally only marginally responsive to my correspondence, and when I sent her queries that demanded replies to specific questions, she was *never* responsive.

At that point, I sent her the ultimate test. I wrote:

> asdf;kj as;kj I;jkj;j ;kasdkljk ;klkj 'klasdfk; asjdfkj. With love, /Robert

And Ivana reacted with another long letter about her mom.

Aha. I had been interacting for

programming. The most successful conversational computer programs these days often fool people into thinking they are human by setting expectations low, in this case by posing as someone who writes English poorly.

Tricks That Work

A truly intelligent, thinking program has been the holy grail of computer science for more than half a century [see "My Date with a Robot," by Robert Epstein; SCIENTIFIC AMERICAN MIND, June/July 2006]. The grail is still well out of reach at the moment, with programmers relying mainly on what many would call trickery to create the impression—usually for no more than a few minutes—that their programs are people. Jabberwacky, A.L.I.C.E., ELIZA and other conversational programs often circumvent real intelligence simply by echoing back part of what a real human has written to them ("pattern matching") or by being humorous and irreverent.

I should know about such things,

programs. I am even editing a 600-page book, coming out in a few months, on this very subject.

Like all good scientists, I am trying hard now to turn lemons into lemonade. With Stephanie Alderson, an undergraduate student at the University of California, San Diego, I am in the process of cataloguing and rating the "humanness" of more than 80 online chatterbots. This exercise is, as you can imagine, largely for my own protection.

Meanwhile, somewhere in Europe or Russia (most likely), a very smug, very anonymous computer programmer has got Ivana chatting with hopeful, naive men around the world, carefully tabulating her successes—and tweaking her to be more humanlike every day. **M**

ROBERT EPSTEIN is a contributing editor for *Scientific American Mind,* former editor in chief of *Psychology Today,* and co-editor (with Gary Roberts and Grace Beber) of the upcoming book *Parsing the Turing Test: Philosophical and Methodological Issues in the Quest for the Thinking Computer* (Springer). You can learn more about Epstein's work at http://drepstein.com

(Further Reading)

◆ **The Turing Test: The Elusive Standard of Artificial Intelligence.** Edited by James H. Moor. Springer, 2003.
◆ **The Turing Test: Verbal Behavior as the Hallmark of Intelligence.** Edited by Stuart Shieber. MIT Press, 2004.

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