

Mind Reading

The new profiling technique that learns exactly what makes you tick—and buy.

BY ELI PARISER

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Welcome, [FIRST NAME], to the era of personalization. Amazon .com recommends books you might like, Netflix tailors your movie menu, and Google customizes your news. And in exchange for this friendly algorithmic assistance, targeted ads follow you wherever you navigate online. Most of us have accepted this bargain, but it turns out that taste profiling is only the beginning. A technique called persuasion profiling is just around the corner, and it doesn't just find content you might enjoy. It figures out how you think. 1 Today, most recommendation and targeting systems focus on the products: Commerce sites analyze our consumption patterns and use that info to figure out that, say, viewers of *Iron Man* also ▶



• watch *The Dark Knight*. But new work by Dean Eckles, a doctoral student in communications at Stanford University suggests there's another factor that can be brought into play. Retailers could not only personalize which products are shown, they could personalize the way they're pitched, too.

Eckles set up an experimental online bookstore and encouraged customers to browse the titles and mark a few for purchase. By alternating the types of pitches—Appeal to Authority ("Malcolm Gladwell says you'll like this"), Social Proof ("All your friends on Facebook are buying this book"), and the like—Eckles could track which mode of argument was most persuasive for each person.

Some book buyers felt comforted by the fact that an expert reviewer vouched for their intended product. Others preferred to go with the most popular title or a money-saving deal. Some people succumbed to what Eckles calls "high need for cognition" arguments—smart, subtle points that require some thinking to get ("*The Hunger Games* is *theInferno* of children's literature"). Still others responded best to being hit over the head with a simple message ("*TheHunger Games* is a fun, fast read!"). And certain pitches backfire: While some people rush for a deal, others think discounts mean the merchandise is subpar. By eliminating persuasion styles that didn't work on a particular individual, Eckles was able to increase the effectiveness of a recommendation by 30 to 40 percent.

Most significantly, he found that people respond to the same type of argument in multiple domains. In other words, if you figure out how to sell someone books, you can use the same technique to sell them clothes. And if that finding holds, your persuasion profile will have a pretty substantial financial value. Once a company like Amazon has determined your profile by suggesting products in a variety of ways over time and seeing how you respond, there's no reason it couldn't then sell that information to other companies. In other words, if you respond a few times to a "50 percent off in the next 10 minutes!" deal, you could find yourself surfing a web filled with blaring red headlines and countdown clocks.

There's plenty of good that could emerge from persuasion profiling. Eckles points to

DirectLife, a wearable coaching device by Philips that uses human coaches to figure out which arguments get a particular individual to eat more healthfully and exercise more regularly. But DirectLife also highlights one of the core challenges of persuasion profiling: It works best when it's invisible to the user. It's just not the same to hear an automated coach saying, "You're doing a great job! I'm telling you that because you respond well to positive feedback!"

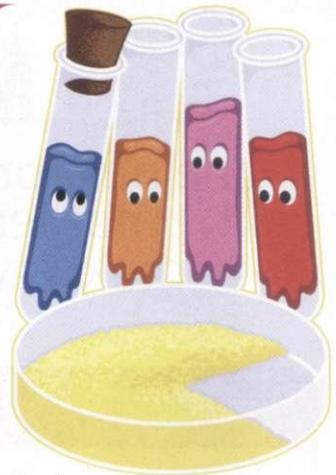
While DirectLife aims to improve your health, most companies that buy and sell your persuasion profile may not have your well-being at heart. Consider what could happen if they knew that certain customers buy things compulsively when they're stressed or feeling bad about themselves. ("Our analysis of

your Facebook photos says you're overweight and ugly. Buy our makeup.") If persuasion profiling makes it possible for a coaching device to shout "You can do it" to people who like positive reinforcement, in theory it could also enable politicians to make personalized appeals based on each voter's particular fears. If your persuasion profile shows that you're a sucker for social pressure, Joe Candidate could target you with ads saying that your friends will be told whether or not you voted. Persuasion profiling potentially offers quick, easily transferable, targeted access to your personal psychological weak spots.

So how can we protect ourselves from this insidious analysis? The first line of defense is to know that persuasion profiling is on the way, keep an eye out for it, and view marketing arguments with the skepticism they deserve. Otherwise, if you're not careful and GlennBeck.com finds out you're moved by "Act now!" exhortations, your preparations for the apocalypse could be interrupted by alerts from the Post Office that first-class stamps will soon cost \$79 each and warnings that the grocery store is almost out of bottled water. Forever.

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"Analysis of your Facebook photos says you're fat and ugly. Buy our makeup."



JARGON WATCH

PAC-mecium

n. Pac-Man played with live paramecia under a microscope. Gamers use zaps of electricity to urge the microbes to consume dabs of virtual yeast and dodge predatory virtual zebra fish larvae.

Breast-on-a-chip

n. A functioning replica of the human mammary gland. The rubberlike model serves as a scaffold for growing cells along anatomically correct channels through which experimental diagnostics and drugs can be pumped.

Digitypes

n. pl. Virtual fossils. By laser-scanning trilobites and dinosaur tracks, scientists can create hi-res, 3-D digital models that replace unwieldy, fragile plaster casts.

SunShot

n. The new US Energy Department initiative to make solar energy cost-competitive with fossil fuels by the end of the decade. Arguably as ambitious as President Kennedy's multibillion-dollar moon shot, the Obama administration's \$27 million sun shot is notably less well funded. —Jonathon Keats (jargon@wired.com)

