

Future Shock

Don't be surprised if these five technologies provide a jolt to the marketing profession

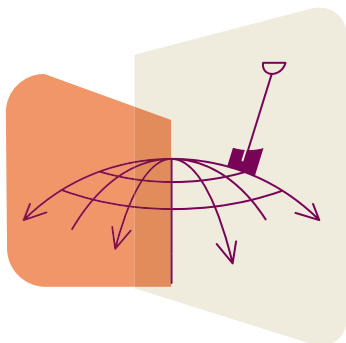
By Fred Haggood

Historically, marketers have been early adopters, picking up on cultural changes and leveraging new technologies long before other sectors do. (Ads appeared on the Internet almost as soon as it was privatized.) Alas, this open-mindedness has never done much good, at least in terms of measurable ROI. Still, the search to bring more science to your art continues. Here *CMO* looks at some emerging technologies and concepts that, although they may not change your world today, raise some intriguing possibilities for the future.

ILLUSTRATIONS BY GREG MABLY



Internet Data Mining: **The Big Dig**



From a distance, the Internet looks like a marketer's dream tool. Regardless of what you make or sell, most of your customers are probably on the Net, and many of them are influencing the way the populace reacts to a campaign, a product or the organization itself.

The challenge for marketers is to focus on the electronic conversations that are relevant across a landscape that is enormous—and getting bigger in a hurry. (As of this writing, a Google search takes you through about 50 ter-

abytes, a number that conservative estimates suggest is increasing three-fold every two years.) Complicating matters, the content itself is presented in a number of formats (PDF files and the like) and expressed in forms that frequently are indirect, offhand and slangy.

Gradually, however, companies are developing tools that can wade into this ocean, filter and sort the most relevant information, and offer it up as a kind of interactive reference book. Far more capable than your average search engine (the companies that make them, such as Intelliseek or Fast or BrightPlanet, prefer to call their products "search platforms"), these technologies zip through huge numbers of websites, blogs, lists, groups and forums. They look for descriptions of and references to products, services, marketing campaigns and companies, evaluating surrounding text to judge whether the terms are referred to positively or negatively and finding words that seem associated with target phrases.

These platforms can help marketers measure how influential a given set of commentators is by tracking the reach of their phrases. They can get a feel for how campaigns are working by counting the number of times a key slogan is mentioned, or not mentioned when it ought to be, given a certain cluster of keywords. "There isn't a day when I'm not checking to see whether our company is being discussed in a positive or negative light," says Pete Blackshaw, Intelliseek's CMO. (You can test-drive Intelliseek's blog tracker at www.blogpulse.com/trend.)

Not only can these types of tools help marketers analyze perceptions around existing products or services, they can also be used to plan future campaigns. Over a large enough population, there is always someone, or a small group of someones, who either knows about a product before it has been announced, has guessed what it will be or just happens to be talking about a similar function. Marketers understand the benefits of monitoring the sentiments of these preannouncement commentators: to see what the complaints are, where the level of enthusiasm seems to flatten out, what aspects of the product people like and so on. So-called buzz-tracking tools can be used to alter campaign strategies.

These emerging search platforms and related tools open a powerful window into the "thinking" of the market. Internet data mining is to marketing what the Hubble telescope is to astronomy.



Virtual Worlds: **Focus Group Fantasy**

We know a bit about marketing in this world; over the next decade, we may have to learn to market in others as well. Virtual worlds are online 3-D landscapes through which users can wander, usually with a graphic representation of themselves (called an avatar) serving as their persona. (The point of the avatar is to give other players an image to associate with in-game communication.) Over the past several years, roughly 2 dozen of these worlds have appeared; today the genre enjoys a worldwide subscription base of about 10 million.

The first generation, often called multiplayer online role-playing games, or MORPGs, was built around stories or genres; players adopted roles particular to a given type of character, like a wizard or a thief. Last year, a variation appeared: worlds requiring no roles beyond those we already

play. In these social synthetic worlds (SSWs), people go clubbing (in virtual clubs), attend art exhibitions, take classes, shop at malls, build parks, sit in hot tubs, run tattoo parlors, flirt, and make and sell a wide range of products and services, from plants to cars to custom body parts (for their avatars, of course).

The key attraction of SSWs is a radical reduction in the costs (time, money, regulatory hassle) of doing almost everything you might have fantasized about doing in real life—designing and distributing a fashion line, building a house, organizing a rock concert. Note that these games have real economies: Hundreds of thousands of dollars circulate in them every month, and tens of thousands of dollars are "expatriated" via various mechanisms into real U.S. dollars. The concept seems to be a hit. Robin Harper,

3

Decision Markets: Place Your Bets

senior vice president of marketing and business development at Linden Lab, the producer at *Second Life*, a leading SSW, reports her subscriber base is growing by 20 percent per month. (The stores in SSWs are fully automated, with all customer needs handled through interactive forms, customer-controllable signage, messaging and e-mail. In this regard, they might offer a peek at the future of low-cost retailing, online or off.)

These new environments present several marketing opportunities. Justin Bovington, CEO of Rivers Run Red, a marketing agency with offices in Chicago and London, uploads products (usually clothes) into stores in *Second Life*, and then monitors how people buy, accessorize and use them. He occasionally organizes in-game focus groups around the designs, and contends that the reactions he gets from SSW players are as useful as those for which he pays regular focus groups \$30,000 a pop. The core attraction is instant market feedback at any time (SSWs are open 24/7).

Bovington is also taking his company into the business of managing SSW access for clients. Rivers just opened a *Second Life* store for a designer who is interested in testing prospective designs by uploading them into her own virtual store and seeing how they sell (see the Mrs. Jones section in www.spacethinkdream.com. "I'm as excited about synthetic worlds as I was about the Internet," Bovington says.

Markets may not be perfect, but they are certainly smarter than the alternative—namely, individuals. Collective actual bets are a better predictor of racetrack outcomes than an expert's forecast, orange juice futures seem to understand the weather more accurately than a meteorologist, and the number of beans in a jar is usually guessed best by taking the average of all guesses than by choosing any single one.

This underlying rationale is accepted well enough that we often use existing markets to guide decision making (for instance, by buying the stock of market leaders). Now some organizations are beginning to leverage this intelligence from the other direction, by organizing what's known as a prediction market—an exchange set up to predict an outcome—or, more recently, a decision market, which is built to guide managerial decisions based on those predictions. Newsfutures.com, a consulting service in Baltimore, has developed a software platform for generating, operating and administering prediction markets. This summer, Dentsu, Japan's largest ad agency, began using the technique to forecast demand for advertising services and evaluate content (that is, which content will work better in which market).

Prediction sites first sprang up across the Net during the 1990s, accepting bids on issues from election outcomes to box-office returns. In 1996, Hewlett-Packard piloted a prediction market to generate a specific sales forecast. The market-generated forecast turned out to be more accurate than the forecast prepared by the marketing manager.

Last summer's controversial terrorist futures market raised public awareness of the concept even further—although the Pentagon quickly abandoned the idea after it became public. Earlier this year, *The New Yorker's* James Surowiecki published a well-received book, *The Wisdom of Crowds*, that described why prediction markets work: The mechanism collects dispersed and diffused expertise that would otherwise be wasted.

Marketers could apply the concept by creating a market to gauge the success of two potential ad campaigns (one emphasizing style, the other reliability) and then asking its employees to bid on which one will be more successful. Marketing would invest in the "winning" campaign—the one with the higher-priced stock. Eli Lilly, Microsoft and Intel are among the companies testing the market concept.

Despite these efforts, implementing prediction and decision markets remains a delicate issue, as it raises several imposing questions: How should the market be defined? Who should be invited to trade in it (employees only, customers, partners)? Should players use real money or trade virtual stock? Is it legal?

But here's a safe bet: Companies will continue to kick the tires on decision markets until they become an accepted management tool. You don't walk away from a crystal ball.



Neuromarketing: The Ultimate Brain Dump

At least since Vance Packard's book *Hidden Persuaders* in 1957, marketing has had an air about it of the wicked seducer, of harboring a desire to reach through customers' resistance and push their "buy button." The latest feeder of these anxieties is called neuromarketing, a focus group tool that entails sliding subjects into video magnetic resonance imaging (MRI) machines, showing them products and advertising campaigns, and monitoring their brain activity. Figure out the brain states associated with buying the product and then find an ad campaign that induces those states.

The heart of the case for neuromarketing is that interviews are unreliable. Subjects in focus groups (the argument goes) allow their reactions to be controlled by group dynamics, express themselves poorly and get bored easily. Ques-

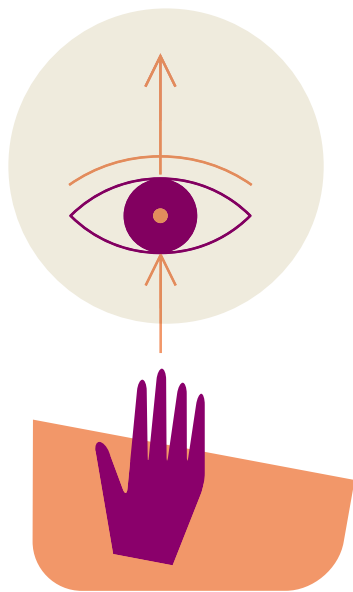
tionnaires fail to articulate key issues properly. Group moderators exert subtle cues. Neuro-marketing promises a route around all this noise.

This vision has inspired what seems to be a new marketing subdiscipline. The BrightHouse Neurostrategies Group, a marketing firm in Atlanta, has made neuromarketing the center of its business model. DaimlerChrysler is funding neuroscience projects at the University of Ulm in Germany. The Ahmanson Lovelace Brain Mapping Center at UCLA is assessing the usefulness of neuromarketing for evaluating political ads. Zack Lynch, managing director of Neuro-Insights, a San Francisco-based research and advisory firm that specializes in neuromarketing, believes that as many as one of every 10 marketing dollars eventually will be spent on neuroscience-based research.



Neuromarketing is not without its critics, many of whom argue that the brain remains too poorly understood to support such lofty ambitions. Others contend there is a more cost-effective way to fix traditionally unreliable focus groups, and that is to simply use a moderator who is properly trained. In other words, neuromarketing vendors not only have to show that the technology is better than the average interview, but better enough than cheaper improvements, to justify the expense. The last requirement may be hard to meet; a video MRI is an extremely pricey substitute for a pencil.

Automated Behavior Recognition: Watch and Learn



For years, the security industry has known that the best way to put security guards to sleep is to sit them in front of a half-dozen video screens. The way to keep them alert is to put them on active patrol and back them up with a system that could filter the output of security cameras, passing situations worth investigating to the guard nearest at hand. But that expertise has been just beyond the limits of "machine vision," and security never had the development dollars to push the technology to the next level.

However, security spending changed dramatically post-9/11, paving the way for new products, including machine vision software, which can do things such as recognizing a varied list of objects of interest, counting the number of people in a group or performing facial recognition. Once you have a system that can recognize objects, you can work on the behaviors of those objects: Are people

waiting in line? Did the subject jump a fence?

The potential contribution of this type of automated object and behavior recognition to marketers is almost as dramatic as it is for security professionals. Take the work done by Sorensen Associates, a marketing research company in Troutdale, Ore. About three years ago, Sorensen began retrofitting stores (usually grocers) with

systems that used radio frequency identification (RFID) tags to map the motions of shopping carts. Data analysis has turned up one fascinating finding after another. For example, the company found that given the choice, shoppers prefer to navigate through a store counterclockwise. This predilection is so strong that stores with entrances on the left (which force shoppers to move clockwise, against the grain) tend to have fewer shoppers at a given time than those with entrances on the right.

While current RFID-based techniques require tags attached to shopping carts, baskets or the products themselves, machine vision raises the prospect of enabling any sort of facility to develop the same rich profiles of user interaction, in real-time, by distributing cameras around a floor and using software to analyze their output. Marketing executives could tap into the technology to measure, for example, how many customers walked directly from one purchase to the next, how many explored the store systematically, how many wandered randomly and how many left without a purchase.

These types of behavior recognition programs are becoming more prevalent in the security sector. Time will tell when the crossover into marketing will occur. But the potential is enormous. You don't need Zarathustra to tell you where this is leading. ●

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