

# TECHNOTRENDS®

## Newsletter

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### **New Tools For Advertising (Part 3)**

**By  
Daniel Burrus**

For the most part, on-line advertising has been dominated by banner ads and search-related messages, but that is rapidly changing as the number of Web surfers using broadband connections grows. Marketing executives from both traditional and non-traditional companies have been experimenting with new and innovative advertising campaigns, but for the most part, there has been far more talk than action. In order to stimulate more action, I'll share several strategies you might consider using when putting your next advertising campaign together.

#### **Pre-Ordering**

Pontiac had a problem; auto sales were down and they were going to launch a new car, the Solstice, in the fall and it needed to be successful. Instead of relying on a typical television and print advertising campaign, Pontiac turned to Yahoo! and the producers of the television show *The Apprentice*, to create both pre-awareness of the Solstice and the ability to pre-order it. The goal was aggressive: pre-orders for the first 1,000 cars within three weeks. When *The Apprentice* aired, the task given to the contestants on the show was to design a brochure for the new car – and America watched. An exclusive on-line offer was made to pre-order the first 1,000 cars. The result exceeded expectations: 1,000 cars sold in the first 41 minutes! Pre-ordering works. Ask yourself: Is there a way we can create both interest and excitement for our new products before they launch, and create cash flow by offering pre-orders?

#### **Voting**

Several years ago, Lays Potato Chips planned on releasing some new chip flavors, but which flavors would their most loyal consumers like best? If they knew that answer ahead of time, they could eliminate the probability that they'd pick the wrong flavor. They decided on two strategies: to both include new product samples, and at the same time, run an ad on their existing product packages stating that they were launching new chip flavors and consumers could go to Yahoo! and vote for the flavor they liked the best. Half a million customers participated. Lays was not only able to turn their most loyal customers into an exclusive R&D department, they were able to get customer buy-in to a change in an already successful product. Ask yourself: Is there a new product or service we could test on our most loyal customers before launching it to the public?

#### **Build Community and Dialog**

General Motors has a corporate blogging site called Fastlane, where car enthusiasts can not only read and respond to their interests and concerns regarding their favorite cars, such as the Corvette Z06, they can now download mini radio shows, called podcasts, when they are connected to the Internet and listen to them whenever they wish on their computer or MP3 player. Even though podacsting is relatively new for Fastlane, in July, some 70,000 podcasts were downloaded. Think of podcasting as affordable narrowcasting. The production equipment is inexpensive and it takes little time to produce a quality show. Ask yourself: Could we use blogs or podcasting to create a large community of potential customers? Next month, I'll share the pillars that are the foundation for this new world of advertising.

## TECHNOLOGY NEWS HIGHLIGHTS

### **CHARGE IT TO YOUR CELL PHONE**

Contactless smart cards have already changed the way people pay for things like gasoline, tolls, and parking. But a new technology called near field communications (NFC) is destined to take this concept to a whole new level by building smart credit card capability right into your cell phone. Basically, NFC works as a virtual connector, enabling devices to communicate at longer ranges. When two NFC-enabled devices are in close proximity, it automatically initializes other wireless protocols (e.g., WiFi or Bluetooth) without complicated menus. The scientists working on the development of NFC see it as a key link to the contactless smart card world. For example, your cell phone could be equipped with a chip that stores a pre-determined amount of credit. When you approach an NFC-enabled point of sale terminal – which could be a public transportation kiosk, a concert billboard, or just about anything – you would automatically be connected to a Web site enabling you to make a purchase. Philips, Motorola, Nokia, Samsung, and Sony are among the companies that have formed the group, but the consortium is not limited to technology companies. MasterCard and Visa have already joined in, and a transport system in Frankfurt, Germany is currently in the process of testing NFC for commuter ticket sales.

For information: NFC Forum, 401 Edgewater Place, Suite 600, Wakefield, MA 01880; phone: 781-876-6235; fax: 781-224-1239; Web site: [www.nfc-forum.org](http://www.nfc-forum.org)

### **GETTING MORE OIL FROM CRUDE**

One way of decreasing our dependence on foreign oil is to squeeze more out of each barrel of crude oil, and a new refining process has been developed to do just that. The typical process for refining crude oil into fuel leaves behind a tar-like residue with high concentrations of sulfur and nitrogen. The new process involves bombarding this sludge with ultrasound to produce tiny bubbles. When they implode, the bubbles release large amounts of pressure and heat, breaking the bonds between sulfur and nitrogen and the molecules of fuel. The net result is approximately seven extra gallons of fuel from every barrel of crude. With widespread use, it is estimated that the new process could cut U.S. oil imports by as much as 20 percent.

For information: SulphCo., Inc., 850 Spice Islands Drive, Sparks, NV 89431; phone: 775-829-1310; fax: 775-829-1351; email: [info@sulphco.com](mailto:info@sulphco.com); Web site: [www.sulphco.com](http://www.sulphco.com)

### **WORLD'S FASTEST TRAIN**

Japanese engineers recently unveiled an eight-car prototype of the fastest commuter train yet – the Fastech 360 – capable of speeds up to 250 mph. Sleeker aerodynamics is one key to the improved performance. The 52-foot nose cone reduces air drag and noisy micropressure waves in tunnels. In addition, each car connects to the power source using only one pantograph rather than dual pantographs that are typical of current designs. And an active suspension system serves to cushion passengers from centripetal forces by inclining the cars inward as the train takes corners. But the biggest problem with trains that travel at such high speeds is developing a braking system that will slow them down quickly in the event of an emergency. For this, the Fastech 360 employs a series of spoilers that automatically rotate out of the roof to augment the conventional brake system and slow the train using air resistance.

For information: East Japan Railway Company, 2-2, Yoyogi 2-chome, Shibuya-ku, Tokyo 151-8578, Japan; phone: +81-3-5334-1151; fax: +81-3-5334-1110; Web site: [www.jreast.co.jp](http://www.jreast.co.jp)

## **BRAIN-ENHANCING PILL**

Testing is under way to determine if a new brain-enhancing drug may provide a possible treatment for everything from jet lag to Alzheimer's. Called CX717, the new drug belongs to a family of compounds called ampakines, which stimulate learning and recall by boosting glutamate levels in the brain. Glutamate improves communication between neurons making it easier to learn and encode memory, even under conditions of sleep deprivation. In clinical studies on human volunteers, subjects taking the drug performed better with regard to memory, attention, alertness, reaction time, and problem solving than those who did not. And because CX717 contains no stimulants, it does not prevent users from being able to get a good night's sleep.

For information: Gary Lynch, Professor, Psychiatry and Human Behavior, University of California Irvine, 101 Theory, Irvine, CA 92697; phone: 949-824-7001; fax: 949-824-3559; email: [gllab@uci.edu](mailto:gllab@uci.edu)

## **DROUGHT-RESISTANT CROPS**

The world's largest seed producers are well under way to developing seeds that will provide good yields even in severe drought conditions. The goal is to cut water usage (and therefore cost) in areas where farmers must rely on irrigation to grow crops. The genetically modified hybrids were developed by splicing drought tolerance genes from other plants into corn and soybeans. Test plots indicate that the bio-engineered crops produced a 20 percent higher yield. It is estimated that the first drought-resistant hybrids will not be commercially available for at least five or six years, pending further testing and regulatory review to determine whether it is safe to introduce the bio-engineered plants into the ecosystem.

For information: Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, MO 63167; phone: 314-694-1000; Web site: [www.monsanto.com](http://www.monsanto.com) Pioneer Hi-Bred International, Inc., P. O. Box 1000, Johnston, IA 50131-0184; phone: 515-270-3200; fax: 510-270-3581; Web site: [www.pioneer.com](http://www.pioneer.com)

## **AUTOMATIC BRAKING SYSTEM**

Beginning with their 2007 models, Mercedes S-class sedans will be equipped with a new safety system called Advanced PreSafe, designed to predict and prevent potential collisions without any input from the driver. The luxury cars will be outfitted with a radar system to detect obstacles in the road — dual transponders in the bumper that scan an 80 degree path up to 100 feet away, and another single transponder in the grille that monitors a 9 degree arc up to 500 feet. The system sounds an alarm when a potential collision is detected, and if the driver does not respond, it will automatically engage the brakes, tension the seat belts, close all windows, and return seatbacks to their full, upright position.

For information: DaimlerChrysler AG, 70546 Stuttgart, Germany; phone: +49-711-170; fax: +49-711-17-22244; Web site: [www.mercedes-benz.com](http://www.mercedes-benz.com)

## **X-RAY VISION?**

Augmented reality is a type of virtual reality that combines real images with computer-generated data. Soon it may be used to enhance surgery and other medical procedures by giving physicians the ability to "see" through bone and tissue. It works by superimposing images from magnetic resonance (MRI) or computer tomography (CT) scans over real-time video captured by two cameras positioned directly above the surgeon's eyes. The two images are aligned using a third, head-mounted infrared camera that uses tracking markers placed around the patient's body to spatially orient the two images. Two screens, positioned right in front of the doctor's eyes,

display the final picture. The result is that physicians can, for example, target a tumor or guide a biopsy needle without taking their eyes off the patient. The system will be undergoing clinical trials, and may be in use in hospitals in three to five years.

For information: Siemens AG, Wittelsbacherplatz 2, D-80333, Munich, Germany; phone: +49-89-63600; Web site: [www.siemens.com](http://www.siemens.com)

## **DIAMOND DISPLAYS**

In the quest for bigger, brighter display panels, researchers are now looking to diamond dust to develop field emitter displays (FEDs) that have wider viewing angles than liquid crystal displays (LCDs) and better longevity than organic light emitting diodes (OLEDs). Diamond nanoparticles (as small as 2 nanometers in diameter) are coated with lithium to give them semiconductor properties. They are arranged on a luminescent glass faceplate using standard screening or inkjet printing methods. This is then sandwiched to a back plate so that when an electric current is applied, the faceplate lights up. Because each individual pixel can be addressed digitally, the images are crisp and clear. The technique can be used to create displays of up to 100 inches (diagonal).

For information: Magnus Gittins, CEO, Advance Nanotech, 600 Lexington Avenue, 29th Floor, New York, NY 10022; phone: 212-583-0080; fax: 212-583-0001; Web site: [www.advancenanotech.com](http://www.advancenanotech.com)

## **A NEW TWIST ON PERSONAL COMPUTING**

Researchers at IBM have been working on a way to make it easier for computer users to move from one machine to another without needing to copy files. The new technology can be built into virtually any USB 2.0 storage device, allowing you to suspend activity on one computer, move the device to another computer, and pick up right where you left off. The availability of small, high-density storage media has been a key factor in making this technology possible. Combined with high speed connections and virtualization software, it's able to store the state (or "soul") of one computer in about 30 seconds, then boot the second computer from the storage device, providing access to all of the original files and applications. Called SoulPad, it is compatible with Microsoft Windows and Linux operating systems.

For information: Chandra Narayanaswami, IBM Corporation, 1133 Westchester Avenue, White Plains, NY 10604; phone: 1-800-IBM-4YOU; Web site: [www.research.ibm.com](http://www.research.ibm.com)

## **AFFORDABLE DNA CHIPS**

The use of DNA analysis holds great promise for improving the rapid detection and treatment of many diseases and medical conditions. Unfortunately, the cost of DNA chips is still high and needs to be brought down to a level where widespread use is feasible. Developing a single DNA microarray using current techniques requires about 400 separate "printing" steps. But researchers at MIT believe they have developed a method that could reduce the number of steps to three, cutting the cost from \$500 per chip to less than \$50. Using a technique called "supramolecular nanostamping," strands of DNA assemble themselves, forming a "master" that is used to create additional copies. Because it prints all of the sequences at once, more information can be encoded in less time.

For information: Francesco Stellacci, Department of Materials Science, Massachusetts Institute of Technology, 77 Massachusetts Ave., Cambridge, MA 02139-4307; phone: 617-253-1000; fax: 617-324-2500; email: [frstella@mit.edu](mailto:frstella@mit.edu); Web site: [www.mit.edu](http://www.mit.edu)