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New Tools For Advertising
(Part 1)
By
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Powerful technologies, and the new capabilities they provide, are forcing every industry to go through yet another round of massive change. The increasing rate of change is not an option. It is the new reality we must all learn to embrace, if we are to thrive in the years ahead. There is an old saying my grandfather shared with me when I was a little boy working on his farm in Texas: "It's easier to ride a horse in the direction it is going." When technology-driven change changes direction, it is easier, and far more profitable, to change direction with it.

Advertising Changes Direction

Advertising is an industry with a long and successful history, and it is big business. U.S. advertisers will spend an estimated $279 billion this year, up 5.7% from last year. The largest advertisers have advertising budgets that would surprise most individuals. For example, Procter and Gamble spends $5 billion on advertising, and an additional $15 billion on trade promotions. Yes, they are one of the biggest advertisers, but they are not the only company with a billion dollar advertising budget - Chrysler spends $2 billion and they are not the largest automobile manufacturer. Every company, regardless of size, knows they must advertise if they are to grow. Yet with all the money that is being spent, it is increasingly difficult to get your message out through the clutter. Why? Hundreds of cable channels, iPods, the Internet, smart phones with video and Web access, and TiVo's ability to allow consumers to skip commercials, are only a few examples of how the rules and tools of advertising are changing.

IPTV

One of the biggest rule changers is just beginning to take place – the merger of television and the Internet – Internet Protocol TV or IPTV. By putting video content such as movies, sitcoms, sporting events, news and commercials, into digital form that can be broadcast on-demand over any broadband connection, media companies, broadcasters and even individuals will have the opportunity to shift television viewing from a one-way, passive, static experience to a two-way, interactive, dynamic experience. Viewers will finally be able to receive the exact video content they want any time they want to watch it. In addition, they can watch the content on any device that has a screen and a broadband connection. For example, you could be watching a movie, stop the movie, get into your car, use your laptop with wireless broadband or even your Web-enabled cell phone to watch the end of the movie (while someone else is driving the car, of course). This is not a new vision of the future. If you have been reading my books and articles over the past two decades, you know that I described the future of interactive television long ago. The point is: The future of interactive television is finally becoming the present!

Personalized Advertising

For advertisers, this means there will be a fundamental shift. In the past, advertising was about storytelling and it was a one-way, static experience. With the Internet and soon IPTV, advertisers can include dialog and interactivity. In addition, they can target the ad to meet the exact needs of the individual. Junk mail is good mail that went to the wrong person. Soon, advertisers can get the right ad to the right person and it won't be seen as junk.

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TECHNOLOGY NEWS HIGHLIGHTS

LED BILLBOARDS

People stuck in traffic are a captive audience for billboard advertisers, but many companies have shied away from this mode of advertising because of its lack of flexibility. All of that is due to change with the arrival of electronic billboards, several of which are already being tested in Cleveland. The new signs can change their message as often as every eight seconds, offering advertisers more control over the content and timing of their messages. Instead of buying "space," companies will be buying "time". And, it may just make waiting in traffic jams a little less boring.

For information: Mark Mays, Clear Channel Communications, Inc., 200 Basse Road, San Antonio, TX 78209; phone: 210-822-2828; Web site: www.clearchannel.com

TV ENHANCES GPS

Current global positioning systems (GPS) have certain limitations when it comes to tracking signals from inside buildings or in large urban settings where buildings can block satellite signals. A new technology, called TV-GPS, is claimed to resolve these problems and provide seamless, accurate tracking indoors and out. TV-GPS integrates signals from existing television towers with GPS satellite transmissions to triangulate positions in any environment. The television signals are about 2,000 times stronger than GPS, and because the antennas are more concentrated in large metropolitan areas, they provide excellent coverage in those areas where GPS is weak. The new system should greatly enhance GPS accuracy for 911 tracking, locating fleet vehicles, and many other applications.

For information: Rosum Corporation, 301 N. Whisman Road, Mountain View, CA 94043; phone: 650-230-7200; email: info@rosum.com; Web site: www.rosum.com

SWIM LIKE A FISH

A unique breathing apparatus, developed by an Israeli inventor, allows divers to breathe underwater without the need for bulky compressed air tanks. The new system uses the small amounts of air that are dissolved in water – similar to the way in which fish "breathe". It operates on a principle called Henry's Law, which states that the amount of gas dissolved in a liquid is directly proportional to the pressure exerted on the liquid. According to this principle, it would follow then that lowering the pressure would cause gas to be released. The tank-less breathing system uses a centrifuge located inside a sealed chamber to lower the pressure of the water and extract the air. According to the inventor's calculations, a one-kilo lithium battery will power the unit for about one hour. In addition to divers, the device will also be useful for small submarines.

For information: Alan Bodner; email: bodner@likeafish.biz; Web site: www.isracast.com/tech.htm

FABRIC REPELS POLLEN

A Japanese textile manufacturer has developed a new fabric that could bring relief to hay fever sufferers. With the help of nanotechnology, tiny particles (about 30 nanometers in diameter) are attached to the surface of the fabric's threads to block pollen from infiltrating gaps in the fabric. The company plans to start manufacturing men's suits using the new material this fall.

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PODCASTING FOR THE MASSESS

Podcasting has become a popular way for nearly anyone to develop his or her own personal syndicated "radio show." Audio files are posted on the Web, where subscribers can download and listen to them whenever and wherever they like. Until now, podcasting has required a fairly high level of technical expertise to record, mix, and produce a broadcast. But a new software tool, called Odeo Studio, has been designed to make the process easy enough for just about anyone. And once created, your podcast can be published in an online catalog, where prospective listeners can subscribe to it and all other types of content.

For information: Odeo, Inc., 300 Brannan Street, San Francisco, CA 94107; email: stuff@odeo.com; Web site: www.odeo.com

FINGER SCANNER COULD SAVE LIVES

Researchers at Cranfield University have developed a scanning system that automatically adjusts a passenger's seat belt to provide optimum protection in the event of a crash. The goal is to reduce injuries – particularly to the chest area – by assessing the bone strength of each passenger. By using an ultrasonic scan of each passenger's finger, the information can be fed into the car's computer system to automatically adjust the force of the seat belt and the firing of the airbags. The plan is to design a system small enough to fit into the dashboard or gear lever of the vehicle so it can be used quickly and easily each time the engine is started.

For information: Roger Hardy, Technical Director, Cranfield Impact Centre, Cranfield University, Wharley End, Cranfield, Bedford, MK43 0JR, United Kingdom; phone: +44-1234-751361; fax: +44-1234-750944; email: r.n.hardy@cranfield.ac.uk; Web site: www.cicl.co.uk

CABLES CARRY LOTS OF POWER

Past research on superconductors that can be used as power cables has produced some promising alternatives to copper, but the high cost of the materials (about four times that of copper) make these alternatives impractical for widespread use. Recently, however, Japanese scientists reported success in developing a high temperature superconductor that can carry 100 times more current than copper at a comparable cost. The new power cables, which are made from yttrium-type superconductors and nickel, are also far more efficient, losing less power during transmission. The cables are expected to be ready for installation by 2015.

For information: New Energy and Industrial Technology Development Organization, Muza Kawasaki Central Tower, 1310 Omiya-cho, Saiwai-ku, Kawasaki City, Kanagawa, 212-8554, Japan; phone: +81-44-520-5100; fax: +81-44-520-5103; Web site: www.nedo.go.jp

MEDICAL CHIP SENDS DATA REMOTELY

We've all heard about implantable radio chips that can be non-invasively read by a handheld scanning device. Now, the latest development in medical chips will allow information to be transmitted over long distances, via phone or the Internet, for remote analysis by a physician. The ZL70100 is about the size of a fingernail, yet it can track information

on a variety of medical problems, including heart conditions, degenerative diseases, paralysis, and hearing loss. It can be used in conjunction with a broad range of medical devices, including pacemakers, implantable defibrillators, neuro-stimulators, implantable insulin pumps, and vital sign monitors. Combined with its low power consumption and high transmission rates, the new device could usher in a new era for patient management and care.

For information: Zarlink Semiconductors, 400 March Road, Ottawa, Ontario, K2K 3H4, Canada; phone: 613-592-0200; fax: 613-592-1010; Web site: www.zarlink.com

CREATING DISEASE-RESISTANT FISH

A team of scientists recently announced the development of a new type of flounder that is resistant to a normally highly contagious viral infection. The team compared 220 genetic markers of diseased fish and healthy fish, which enabled them to pinpoint one particular marker that was highly associated with resistance to the virus. They then selected fish based on the presence of this genetic marker and bred them with a variety that is known for good taste and fast growth. Studies are now under way to verify the results and assess the quality of the fish as a food product.

For information: Nobuaki Okamoto, Tokyo University of Marine Science and Technology, 4-5-7, Konan, Minato-ku, Tokyo, 108-8477, Japan; phone: +81-3-5463-0358; fax: +81-3-5463-0359; Web site: www.kaiyodai.ac.jp

BIOMETRIC I.D. IN THE PALM OF YOUR HAND

The Bank of Tokyo-Mitsubishi is among the first organizations to integrate a new biometric identification technology into its security systems. The technique uses scans of the vein patterns in the palm (a characteristic that is as unique as fingerprints) to verify a person's identity. Infrared light captures the image and the system compares it with a database of patterns in less than one second. In tests on 700 subjects, ages 10 to 70 years, and a total of 1400 palm scans, the system had a false rejection rate of 1 percent and a false acceptance rate of only 0.5 percent. One major advantage of this technique is that it does not require contact with the measuring device in order to work. The image can be captured as the hand floats in mid-air, greatly alleviating concerns about hygiene. In addition, vein patterns are much more difficult to counterfeit than fingerprints, since they lie under the skin.

For information: Masaki Watanabe, Information Technology Media Laboratories, Fujitsu Laboratories Ltd., 4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki, Kanagawa 211-8588, Japan; phone: +81-44-754-2679; fax: +81-44-754-2347; email: fabio@ml.labs.fujitsu.com; Web site: www.fel.fujitsu.com

RADAR THAT SEES THROUGH WALLS

Military researchers are coming closer to perfecting technology that will allow detailed imaging of people and objects inside buildings. Called through-the-wall-surveillance (TWS), the technology uses ultra-wideband short-pulse radar to generate three-dimensional pictures of people and things that would otherwise be hidden, and is usable up to 60 meters from the target. Using advanced sounding-technology, 3-D rendering and manipulation, the system can more clearly distinguish between an adult and a child. Icons can be attached to specific images to track people or objects as they move about. Obvious applications include military, security, counter-terrorism, and law enforcement. However, TWS could also be useful for rescue services such as locating avalanche victims, or for detecting buried landmines.

For information: David DeFilippo, Defence R&D Canada Corporate, Business Development Office, 8-305 Rideau Street, Ottawa, Ontario K1A 0K2, Canada; phone: 613-995-8022; Web site: www.drdc-rddc.gc.ca

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