TECHNO TRENDS
THE BIG IDEAS THAT ARE CHANGING EVERYTHING

THE BUSINESS AGILITY PARADOX

BY DANIEL BURRUS, CEO OF BURRUS RESEARCH

In preparation for a keynote speech I'm delivering next month to a large number of CEOs, CFOs, CIOs, and COOs from a wide range of Fortune 500 companies, I talked with the meeting planner who told me that he surveyed the audience ahead of time and asked them what topic they were most interested in. At the top of the list was *Business Agility*. As the pace of change continues to accelerate, the ability to change quickly, in the face of new technology-enabled capabilities can easily separate the winners from the losers. In addition to the challenge presented by the accelerated pace of change are the constantly shifting customer and consumer interests and demands.

THE PARADOX

Paradox is defined as a statement or proposition that seems self-contradictory or absurd but in reality expresses a possible truth. Putting the word "business" together with the word "agility" seems to fit the paradox definition. A business should be able to achieve agility, yet anyone in business knows that the ability to change quickly always takes much longer than anticipated.

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AGILITY PARADOX *(continued from page 1)*

In order to increase organizational agility, it's imperative to have a clear strategic vision of the ideal future that everyone understands. Without this vision, accelerating change can take you in the wrong direction faster. Today, it is hard to find someone who is not suffering from information overload. Making agility a strategic imperative is good, but to break through the time-consuming overload requires that the information regarding the rapid actions you want to take must be communicated in a way that stands out in order not to be lost.

THE REAL-TIME DASHBOARD

Information can be collected and communicated in real time, allowing the right people to see the earliest possible signs of consumer, or customer change, and then implement immediate responses. The best way to get this vital information past the e-mail and document overload we face is to have it sent to our personal digital dashboard.

A digital dashboard is a Web page that is connected to your internal computer network. It provides you with the real-time information you need to monitor to help you take immediate action.

Instead of containing just text, the dashboard will graphically represent the information you need so that you can quickly see changes as they are occurring. For example, a product might become hot and start flying off the shelves. As the increased sales happen, the color of a graph might change or even flash, letting you know an immediate re-stocking or re-order must take place. If your organization does not provide you with a dashboard option, it's time to get one. The cost is low and the positive impact on agility is high.

In this article, I separated customers from consumers because a consumer may not be a customer. It is amazing how many companies, both large and small focus on customers, but fail to focus on consumers who can be converted into new customers.

TECHNOLOGY NEWS HIGHLIGHTS

STEM CELL THERAPY TO ENTER HUMAN CLINICAL TRIALS

One developer of cell-based therapeutics derived from human embryonic stem cells (hESCs) has announced that they will be seeking permission from the FDA to begin human clinical trials, possibly within the next year. Although several products are currently being developed – including treatments for Parkinson's disease, diabetes, osteoporosis, osteoarthritis, and heart disease – it is likely that the first trial will focus on treatments for spinal cord injury. In animal tests, oligodendrocyte cells grown from hESCs have been shown to restore movement in damaged motor nerves by sheathing them in a fat, called myelin, that helps them transmit signals. The researchers believe that the chances of a harmful immune reaction are low since brain and spinal cord tissues have relatively inactive immune systems.

For information: Geron Corporation, 230 Constitution Drive, Menlo Park, CA 94025; phone: 650-473-7700; fax: 650-473-7750; email: info@geron.com; Web site: www.geron.com

REMOTE-CONTROLLED HOME ROBOTS

Starting in September, a number of homes and schools in South Korea will be participating in a large-scale test for a project called Ubiquitous Robotic Companion (URC). Approximately 1,000 sophisticated robots will be deployed to perform tasks such as cleaning the house, taking care of pets, reading to children, and keeping an eye out for intruders. About half of the robots will have built-in cameras as well as the capability to be controlled remotely via cell phone, enabling owners to monitor their homes from virtually anywhere. The goal of the URC project is to have a robot in every household by the year 2020. If the tests are successful, robots will be made commercially available at a cost of between $1,000 and $2,000 per unit. The cost can be kept low because most of the software is not built in. Instead, the robots hook up to the Internet via a wireless area network for their sensing and processing capabilities. Only the movement functions reside in the unit. The test is scheduled to run through December, at which time sales of URCs are expected to skyrocket.

For information: Ministry of Information and Communication, Telecommunications Center Building, 11-14F, 100 Sejongno, Jongno-gu, Seoul 100-777, Korea; phone: +82-2-750-2000; fax: +82-2-750-2915; Web site: www.mic.go.kr

150-MILE-PER-GALLON HYBRID CARS

Hybrid cars now have access to a new conversion package that converts them into plug-in hybrid electric vehicles (PHEVs) and boosts gas mileage to 150 mpg at speeds under 55 mph. Called EDrive, the conversion package replaces the nickel-metal hydride battery that is standard in hybrid vehicles with a lithium ion battery, which has 20 times the charge capacity. The package also includes a new power control system that can be installed in a day without impacting the engine, motors, or hybrid control system. The modified cars can be plugged into any 110-volt outlet and, when charged overnight, will operate for about 50 miles at the higher efficiency levels. If you forget to plug it in, or exceed the 50-mile range, the car will perform as a normal hybrid.

Unfortunately, in addition to its relatively high price tag ($10,000 to $12,000 installed) the biggest drawback of the system is that installation will void your warranty. Hopefully, the drawbacks will eventually become less overwhelming so it will be more feasible for all drivers. EDrive was first introduced in Southern California earlier this year, but is expected to be available nationwide by late 2006.

For information: EDrive Systems, LLC; email: info@edrivesystems.com; Web: www.edrivesystems.com

HIGH SPEED CELL PHONES

A new product called IP-Converged Network Platform (IP-CNP) may soon make it possible for cell phone users to access all broadband services – including voice, data, and multimedia – automatically and seamlessly. Currently, even WiFi-enabled devices require cumbersome access codes to switch from cellular to WiFi. IP-CNP unifies the user interface to provide truly integrated service. When installed on the network, cell phones would be able to automatically detect the availability of a WiFi hotspot and switch from cellular to faster WiFi speeds automatically. The system has been deployed through select network services in Europe, Asia and Australia, but has yet to catch on with U.S. providers.

For information: Azaire Networks, 4800 Great America Parkway, Suite 515, Santa Clara, CA 95054; phone: 408-567-1500; fax: 408-567-1501; Web site: www.azairenet.com

WRISTWATCH MONITOR

The Exmocare wristwatch is designed to help elderly people maintain their independent lifestyle, while giving their loved ones the peace of mind that comes from continuous monitoring. The wearable sensing device uses an infrared laser to measure heart rate, activity levels, and emotional state through galvanic skin response. It then transmits the information via Bluetooth wireless to a data center, where authorized individuals can log on and monitor an individual's vital signs or receive alerts via cell phone, email or instant messaging when parameters fall outside preset limits. The optional Exmocare Car Kit also includes a GPS pocket computer to correlate the user's physiological data along with location and vehicle speed.

For information: Exmovere, LLC, 775 Washington Street, New York, NY 10014; phone: 800-259-9866; Web site: www.exmocare.com

COPPER CLOTHING

The benefits of copper go well beyond preventing corrosion in your plumbing. Recent tests indicate that it possesses antibacterial, antimicrobial, and even anti-wrinkle properties as well. One textile manufacturer has discovered a cost-effective way to incorporate the benefits of copper into articles of clothing, using a proprietary method that binds copper oxide to the fabric fibers. They have found, for example, that socks made with 12-percent-copper-impregnated polyester fibers can cure athlete's foot. A hospital in Israel is also studying the effectiveness of copper-fiber bedsheets in fighting superbugs. The process works equally well with woven and non-woven fabrics, and can even be integrated into latex.

Other products currently being marketed include gloves, sleep masks, and pillow cases.

For information: Jeff Gabbay, Cupron, Inc., P. O. Box 10973, Greensboro, NC 27404; email: info@cupron.us; Web site: www.cupron.com

SUNBURN REPAIR

Sunblocks offer excellent protection against overexposure, although it's easy to forget to apply or reapply them over the course of an entire day in the sun. Now, a new prescription skin cream is being tested that is capable of healing sun damage even when it isn't applied until the following day. Dimercine (also know as the "morning after cream") actually repairs damaged DNA by delivering enzymes directly to the nucleus of skin cells in microscopic pouches called liposomes. It has been shown to reduce the rate of skin precancers in high-risk patients by as much as 60 percent.

For information: AGI Dermatics, 205 Buffalo Avenue, Freeport, NY 11520; phone: 516-868-9026; fax: 516-868-9143; email: staff@agiderm.com; Web site: www.agiderm.com

REFLECTIVE FERTILIZER

A new fertilizer due to be released in 2007 may boost crop production in water-stressed regions of the world. The mixture, made of water and organic waste, can be sprayed onto farmlands where it forms a biomembrane that reflects the sun's rays. This reduces the soil temperature and cuts down on evaporation, reducing the need for supplemental water by as much as 80 percent. The membrane also has the potential to decrease atmospheric carbon dioxide levels by reducing emissions from the soil. Globally, approximately $20 billion is spent every year on farmland fertilization and irrigation.

For information: Torfinn Johnsen, Albedo Technology International AS, Strandgaten 129, 4307 Sandnes, Norway; phone: +47-51682820; fax: +47-51682821; Web site: www.earthshine.no

ELECTRIC EYEGLASSES

If you're over 40, chances are good that one day soon you'll be joining the millions of people with presbyopia – an age-related eye condition that hinders one's ability to focus on objects close up. Until now, the answer for many has been bifocals, trifocals, or graded lenses. The problem is that, at any given viewing distance, some portion of the lens remains out of focus. Recently, researchers at the University of Arizona developed adaptive eyeglass lenses that change focus electrically. A fluid layer of liquid crystal rods, 5 micrometers thick, is sandwiched between two sheets of glass. When a voltage is applied, the rods can reorient themselves, altering the way they focus light. The current prototype incorporates an on/off switch, but future versions may include a sensor to automatically adjust focal length based on distance.

For information: David Mathine, University of Arizona, College of Optical Sciences, P. O. Box 210094; Meinel Building 516; Tucson, AZ 85721-0094; phone: 520-621-4093; email: mathine@email.arizona.edu; Web site: www.arizona.edu

1,000-CORE CHIP

Today's microprocessors typically combine two central processing units (cores) on one chip to boost computing power. Some of the larger manufacturers are anticipating that by 2008 we will see four- and eight-core devices. But one company is planning to debut a 256-core chip later this year, and reportedly has plans to release a 1024-core chip in 2007. The Kilocore 1025 combines an IBM Power PC CPU with 1,024 additional parallel processors to speed up processing of memory-intensive files such as streaming video. Yet, this revolutionary little chip consumes only one-tenth as much power as those used in today's notebook computers. Power consumption is kept low by running 8-bit processors (as opposed to 32- or 64-bit) at a clock speed of only 100 megahertz.

For information: Fred Furtek, Rapport, Inc., 2603 Broadway, Redwood City, CA 94063; phone: 650-568-5910; fax: 650-361-1229; email: info@rapportincorporated.com; Web site: www.rapportincorporated.com

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