

TECHNOTRENDS®

Newsletter

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CHANGE FROM THE INSIDE OUT

By
Daniel Burrus

Is change coming at you from the outside in, or the inside out? My experience working with top leaders from business, government and education on five continents is that the majority of change comes to us from the outside in. For example, when a new law is passed, we have to make changes in order to comply with the new law. When a new competitor comes into town offering lower prices, we must change some aspect of how we do business. When a new technology comes out that changes customer behavior, executives inform the IT department that they must get the new stuff, and change accelerates faster. When the boss changes corporate strategy, employees scramble.

The Personal Side Of Outside In

Change from the outside in can affect our personal lives as well. For example, when gas prices go up, we are forced to change our spending and/or driving habits. If you, or your spouse, are laid-off, our daily focus shifts to finding work. When the stock market goes down people often sell, and when it goes up, they buy.

Crisis Management

Whenever change comes from the outside in, we are forced to react. In other words, we are forced into putting out fires and managing the latest crisis. This is such a common problem that most of the recent books on business strategy say that *agility* is the key to a successful future. In other words, react fast! Reacting fast to external change is good, but using agility, as your main strategy, tends to keep you locked in a crisis management mode. When you spend most of your time putting out fires, day after day, month after month, year after year, the future tends to unfold in an uncontrollable, and often less desirable way.

Gaining Control of Your Future

The only way to positively influence your future is to drive some of the change from the inside out. This is true for both organizations and individuals. It is essential to spend at least a small portion of time thinking about your future in an opportunity mode. To do this you have to realize that there will always be fires to put out, but putting out fires will not move you forward in a well thought out way. Try spending one hour a week unplugging from the present crisis and plugging into future opportunity. Instead of being blocked by all the things you are uncertain about, ask yourself: What am I certain about? What do I know *will* happen in the next two or three years? What problems will I be facing? What problems will my company be facing? What problems will our customers be facing? What problems will my kids be facing? Then, spend some of your opportunity time solving problems *before* they happen. Another good question to ask is: What is my ideal future? What are some of the steps I could take to shape that future now? Tomorrow, there will be more fires to put out. Put the opportunity hour into your calendar now. If you don't, the future you end up with might not be one you would have wanted.

TECHNOLOGY NEWS HIGHLIGHTS

POLLUTION-FREE ENGINE

A project called the Entropia Laser Initiative is currently under way in Japan. The goal of the Initiative is to convert sunlight into laser light, which, in turn, can be used to develop innovative new energy systems. One of the projects is an experimental engine that is powered by water and magnesium. It consists of a cylindrical canister packed with magnesium chips, with an inlet at one end for water to enter the chamber. At the other end, two outlets pointing in opposite directions generate a rotational force from the chemical reaction. Since the new engine does not require any fossil fuels, it emits no pollutants. But the best part is that the magnesium oxide, which is produced during the reaction, can be recycled into magnesium simply by exposing it to laser light, so the engine can be self-renewing.

For information: Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo, Japan 152-8550; phone: +81-3-5734-2975; fax: +81-3-5374-3661; Web site: www.titech.ac.jp

ON-DEMAND SOFTWARE IMPROVES SALES MANAGEMENT

Companies rely on indirect sales channels – such as distributors and resellers – for as much as 70 percent of their revenue. But managing these relationships can be difficult, and inadequate communication can lead to inaccurate forecasts and lost sales. A new on-demand application for customer relationship management called Salesforce Partner Edition offers businesses a way to measure the sales success of their indirect partners while providing services, such as lead generation, marketing assistance, training, business planning, and recruitment. Usage fees are based on the number of subscribers, and information is shared easily and seamlessly via the Internet to provide a comprehensive view of all sales channels.

For information: The Landmark @ One Market, Suite 300, San Francisco, CA 94105; phone: 415-901-7000; fax: 415-901-7040; email: info@salesforce.com; Web site: www.salesforce.com

COMPREHENSIVE BLOOD TEST

Your next physical may not be a physical at all, but a simple blood test conducted in your home. The Biophysical 250 is a revolutionary new procedure that scans for 250 biomarkers – proteins and other compounds in the blood that are associated with specific diseases – to provide a comprehensive snapshot of your health. Unlike physical examinations that can miss early signs of disease and only look at a limited range of conditions, Biophysical 250 can detect chemical changes at a very early stage and is capable of testing for more than 200 potential diseases. All that's required is a small sample of blood, which may be drawn in your home or office by a Biophysical technician. In about three weeks, patients receive a report that summarizes their risk factors, and a breakdown for their personal physician as well. A consultation with a Biophysical physician is also included in the \$3,400.00 cost, which is not currently covered by insurance. Although this cost seems high, it represents only 10 percent of what a comparable battery of tests would cost. Early warning systems such as this not only allow consumers to become more proactive with regard to their health, but can also lead to better outcomes by initiating earlier treatment of potentially life-threatening conditions.

For information: Biophysical Corporation, 3300 Duval Road, Suite 150, Austin, TX 78759; phone: 512-623-4900; fax: 512-623-4950; Web site: www.biophysicalcorp.com

WALKING “WHEELCHAIR”

A new device designed to assist the handicapped and the elderly is in the final stages of development. The biped locomotor robot looks like a chair on legs, and can be operated by a person sitting atop it via hand-held controllers. The WL-R16III, as it is known, is capable of moving at a speed of about one step per second (one step being equal to 20 or 30 cm). It can also climb stairs, instantly adjust to uneven surfaces, and navigate bumps, gravel, sand or other potential obstructions without falling down. The Waseda Leg platform – the mobile base that basically consists of the lower limbs and a waist – can also be adapted for use as a humanoid robot, a mechanical “walker,” or a walking cart.

For information: Tmsuk Co., 1-7-8, Kimachi, Kokura Kita-ku, Ktakyushu-shi, 803-0851, Japan; phone: +81-093-581-3520; fax: +81-093-581-3521; Web site: www.tmsuk.co.jp

Waseda University, Takanishi Laboratory, 59-308 Okubo, Shunjiku-ku, Tokyo, 169-8555, Japan; phone: +81-3-5286-3257; fax: +81-3-5273-2209; Web: www.takanishi.mech.waseda.ac.jp

NO-MOW GRASS

Scientists have long envisioned a means of manipulating the stature of plants to optimize forestry, crop, and garden plant development. Recently researchers discovered a class of hormones that may hold the key to regulating plant growth. The Brassinosteroids hormones are found in low levels in virtually all parts of a plant from the seed and roots to leaves and vegetative tissue. When they are lacking, the plants are dwarfed, and when they are provided in higher than normal levels, growth is enhanced. Knowing how these compounds influence genetic development, scientists are able to create plants with specific growth characteristics. One application for this discovery is the ability to produce grass that never grows yet stays green. The technology could also be used to improve the yield of crop plants, such as rice, wheat, soybeans and corn.

For information: Joanne Chory, Howard Hughes Medical Institute, 4000 Jones Bridge Road, Chevy Chase, MD 20815-6789; phone: 301-215-8500; Web site: www.hhmi.org

USING SILKWORMS TO CURE DISEASE

Most of us have taken antibiotics to cure a bacterial infection at some point in our lives, and we all know how drug costs continue to rise. Conventional methods for generating antibodies use cultured mammal cells. When germs (antigens) invade a human, or any animal, an antibody is produced that clings to the germ and prevents it from spreading. These artificially generated compounds are then used in pharmaceuticals to boost the body’s natural immune system, as well as in clinical reagents to detect the presence of specific diseases. Japanese researchers recently discovered a way to produce antibodies using silkworms, a technique that could reduce the cost of manufacturing by 90 percent or more.

For information: Nitto Boseki Co., 4-1-28, Kudankita, Chiyoda-ku, Tokyo, 102-8489, Japan; phone: +81-3-3514-8680; Web site: www.nittobo.co.jp

COMPUTERS THAT TRACK TV VIEWING

A recent report from our Consumer Research division indicates that as many as 35 percent of people surveyed simultaneously surf the Web and watch TV. So, Google has come up with a new way to gain even greater insights into the viewing habits of the mass media audience. Using ambient audio identification, sounds are captured by a person’s computer and analyzed to determine what radio or television program the consumer is tuned into. Google’s new service can then be programmed to deliver relevant content to the viewer’s computer screen while they listen

to or watch the program. For example, when watching a live political debate, you might receive a link to a real-time chat forum on the topics being discussed. It remains to be seen whether the feature will appeal to viewers, but Google intends to use the system as a tool for advertisers by allowing them to bid for specific TV segments.

For information: Google, Inc., 1600 Amphitheater Parkway, Mountain View, CA 94043; phone: 650-253-0000; Web site: www.googlesearch.blogspot.com/2006/06/interactive-tv-conference-and-best.html

KEEPING TABS ON “SOCIAL” DEBT

It happens to everyone at one time or another; you're on a trip with friends and agree to split expenses, but when the time comes to settle up, the task of determining “who paid for what and how much” is enough to make you vow that from here on out, you're traveling solo. That's precisely why two engineers from Amazon decided to develop BillMonk, a free service that allows subscribers to keep track of what is owed to whom using their cell phones. The “social money” market – which includes everything from split dinner checks to shared rent and utilities – is estimated to be over \$100 billion per year. By collaborating with large financial players like PayPal and Master Card, as well as cell phone providers like Cingular, the developers hope to monetize this market with cashless payment options that can be transacted by phone. The system is also set up to keep track of other items, such as books and movies that are loaned to or borrowed from friends or the library.

For information: Gaurav Oberoi or Chuck Groom, Code Monks LLC; email: company@codemonksllc.com; Web site: www.billmonk.com

ENERGY-EFFICIENT DATA CENTERS

As the Internet continues to expand, the number of data centers required to provide storage for Web sites and databases has increased proportionally, and the amount of power needed to maintain these centers is a growing concern. Because of the substantial power and cooling requirements, as well as the need to operate 24/7, data centers can use up to 100 times more power than a comparably sized office building, so researchers at Berkeley Labs are looking at ways to reduce the power consumption of large computer facilities. The AC (alternating current) electricity used to run these systems is typically converted from 480 volts down to 208 volts, then fed to individual power supplies, which step it down further to a voltage level that is appropriate for each individual component. Inefficiencies in the transformers translate into lost power at each step of the process. This also generates additional heat, placing an added load on the air conditioning system and increasing the power requirements even further. The new system reduces power conversion losses by consolidating the steps and running the servers on DC (direct current). Using this approach, the team estimates they can cut energy usage by as much as 20 percent.

For information: William Tschudi, Lawrence Berkeley Laboratory, 1 Cyclotron Road, Berkeley, CA 94720; phone: 510-495-2417; email: WFTschudi@lbl.gov; Web site: www.lbl.gov

LOOKING FOR ANSWERS?

A new service is now available to help you find information whenever you need it. 888-Ez-AskMe can get you answers from your cell phone if you're lost or just looking for information, and automated replies are free of charge. Blackberry users can inquire and receive answers via text on the downloadable application called AskMeNow. A 49-cent-fee for text responses is billed to your cell phone.

For information: AskMeNow, 26 Executive Park, Suite 250, Irvine, CA 92614; phone: 949-861-2590; fax: 949-861-2591; Web site: www.askmenow.com



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About Daniel Burrus

Daniel Burrus is one of the world's leading technology forecasters and business strategists, and is the author of six books, including the highly acclaimed Technotrends, which has been translated into over a dozen languages. He is the founder and CEO of Burrus Research Associates, Inc., a research and consulting firm that monitors global advancements in technology and consumer trends to help clients better understand how technological, social, and business forces are converging to create enormous, untapped opportunities.



In 1983, Burrus became the first and only futurist to accurately identify the twenty technology categories that would drive two decades of revolutionary change. Since then, he has established a worldwide reputation for his exceptional record of predicting the future of technological change and its direct impact on the business world. He has helped hundreds of clients identify new opportunities and develop successful competitive strategies based on the creative application of leading-edge technologies, and has delivered over 2,200 keynote speeches to

corporations, associations, and professional organizations worldwide.

In his presentations, Mr. Burrus blends timely and provocative knowledge with just the right amount of humor and motivation. He is a master at tailoring his presentations to his audiences as he addresses relevant trends and offers powerful, practical guidance for turning rapid change into a competitive advantage.



Burrus' client list encompasses a wide range of industries, and includes many Fortune 500 companies such as GE, IBM, Oracle, Microsoft, DuPont, Yahoo!, Toshiba, American Express, Northwestern Mutual, ExxonMobil, and Sara Lee. He has been the featured subject of a PBS Special, has appeared on programs such as Larry King, CNN, and Bloomberg, and is quoted in a variety of publications, including USA Today, Fortune and Industry Week.

"From all of us at Yahoo!, a very BIG thanks for your insight, candor, ideas, inspiration, enthusiasm and sheer presence at our annual conference. You made a real contribution to our program and helped elevate our thinking."

-- Wenda Millard, Chief Sales Officer, Yahoo!