



TECHNO

THE BIG IDEAS THAT
ARE CHANGING EVERYTHING

TRENDS

TRENDS FOR EVERY SALESPERSON (PART I)

BY DANIEL BURRUS, CEO OF BURRUS RESEARCH



Every industry and profession goes through changes, and the sales profession is no different. Just because a certain sales technique or

mindset worked in the past doesn't mean it'll work today. To be a top performing salesperson, today and in the future, you need to continually adapt to both market and social conditions.

With that in mind, there are several new business trends taking place—all of which affect salespeople in every industry. Understand what the trends are and how to maximize them so you can reap the rewards of a successful sales career.

#1 YOUR PAST SUCCESS WILL INCREASINGLY HOLD YOU BACK.

People who are in sales long-term tend to be successful. Realize, though, that success is your worst enemy. When you're at the top and doing well, you're really just trying to keep up and meet demand. Having so many sales knocking at your door lulls you into a false sense of security. As such, you're not looking at enough future opportunities because you're too busy reaping the rewards of the current opportunities. You're not sowing the seeds of future success, and that's setting you up for a fall. An old saying goes: "If it isn't broke don't fix it." In today's *continued on page 2*

DECEMBER 2007

VOL. XXIII, NO. 12

- Night Vision For Cars
- Ultrasensitive Sensor
- Microscopic Radio
- Guiding Stem Cells
- Flood-Resistant Rice
- Thin Film Solar Cells
- Light-Speed Data Storage
- Nuclear Battery
- 3-D Chips
- Turning Trash Into Oil
- Interviewing In Cyberspace

TAKE STRATEGIC PLANNING TO A NEW LEVEL

Daniel Burrus has developed Competitive Advantage - an interactive session that raises the bar on take-home value and dramatically increases the impact of his presentation is less than a half-day. For more information, visit www.Burrus.com/ca

SIGN UP FOR OUR FREE VIDEO E-BRIEFING

Visit our web site www.Burrus.com and sign up on our home page to receive our free Video e-Briefing featuring highlights of our monthly Consumer Intentions and Actions Survey.

PUBLISHED BY:  **burrus**
research

800-827-6770

www.burrus.com

SALES TRENDS *(continued from page 1)*

world we need to rework that statement to be: "If it works it's obsolete." For example, if you just bought the latest laptop, is the next newer and better version already in existence and about to be released to the public? You bet! Remember that rapid obsolescence isn't just about products; it's about how we do our business too.

#2 TECHNOLOGY-DRIVEN CHANGE WILL DRAMATICALLY ACCELERATE.

It's human nature to protect and defend the status quo. However, you have to understand that technology is changing the future, your customers' behavior, and your company's reality. That means if you don't change, you'll be soon out of a job. As a salesperson, you need to embrace change and make it your best friend rather than fight it and hold tight to the way things were. So how do you make rapid change your best friend? You spend some time thinking about where the changes that are impacting you and your customers are going. Remember that change causes uncertainty in customers' minds. You can bring certainty to your customers when you are confident in where change is going. You can lead your customers through the change, causing them to view you as more than just a salesperson, but as a solutions provider and trusted advisor.

TO BE CONTINUED...MORE SALES IN YOUR FUTURE

Successful salespeople know that in order to stay on top, they need to keep abreast of trends and changes in their industry. Only then can they stand out and be a true solutions provider for their prospects and customers. Next month, I will share additional trends to help you understand and adapt to today's changing sales industry.

TECHNOLOGY NEWS HIGHLIGHTS

NIGHT VISION FOR CARS

Despite the fact that traffic is reduced by an average of 60 percent at night, a large proportion of fatal accidents occur during those times because of limited visibility. So researchers have developed a new night vision system that can warn drivers of potential obstacles even before they get within range of the headlights. The new system, called DRIVSCO, utilizes two infrared cameras to detect pedestrians and other possible hazards that may be on the road. It then generates a visual display that codifies the distances of each object using color – warm, red colors for the closest and most imminent dangers, and cool, blue colors for more distant objects. DRIVSCO can also process real-time movement to indicate in what direction an object might be moving.

For information: Eduardo Ros Vidal, University of Granada, Hospital Real, Cuesta del Hospicio, s/n. 18071, Granada; phone: +34-958-243000; Web site: www.ugr.es

ULTRASENSITIVE SENSOR

A new sensor that's smaller than a grain of rice could revolutionize the way biomagnetic signals (such as heart and brain activity) are monitored. Scientists recently demonstrated that a prototype of the device is capable of detecting magnetic fields as small as 70 femoteslas, (one femotesla equals one quadrillionth of a tesla), which is powerful enough for fetal heart monitoring, and they are working on refining the design to measure signals in the 10 femotesla range, as well. The sensor consists of a low-power laser passing through a small container, which houses about 100 billion rubidium atoms in a gaseous state. The amount of laser light absorbed by the rubidium is directly proportional to the magnetic field applied to the beam, so very small changes can be measured. The cells could be mass-produced at a relatively low cost by assembling them on a semiconductor wafer using standard microelectromechanical system techniques, and would be able to operate on a single AA battery for weeks. In addition to medical applications, the sensors may have application in security as a means of screening for explosives.

For information: John Kitching, National Institute of Standards and Technology (NIST), 325 Broadway, Mail Code 847.00, Boulder, CO 80305-3328; phone: 303-497-4083; email: john.kitching@nist.gov; Web site: www.nist.gov

MICROSCOPIC RADIO

The world's first nano-sized radio detector was recently incorporated into a complete radio system, illustrating that nano-scale

wireless communications is a real world possibility. Made of carbon nanotubes only a few atoms across, the tiny radio is thousands of times smaller than the diameter of a human hair, yet was able to translate radio waves into sound and transmit them from an iPod to a speaker several meters away. The applications for this technology include meteorological, geophysical and medical research as well as discrete military surveillance. For example, by miniaturizing all of the components, researchers could someday develop “smart dust” – a cluster of sensors, power supplies and processors that could detect and transmit changes in light, temperature or vibration.

For information: Peter Burke, University of California-Irvine, Electrical Engineering & Computer Science, 2233 Engineering Gateway, Irvine, CA 92697-2625; phone: 949-824-9326; fax: 949-824-3732; email: pburke@uci.edu; Web site: www.ece.uci.edu/~pburke/

GUIDING STEM CELLS

The capacity of stem cells to renew themselves has been the source of much hope for victims of spinal cord injuries in recent years. But the fact that adult stem cells, which are already present in the spinal cord, do not readily repair damage on their own has puzzled researchers for some time. Recently, a Canadian team identified what they believe to be a key compound in the mechanism of stem cell repair. Called Netrin1, the protein is essential for normal brain development in the embryo, but in adults it has an inhibiting effect by driving stem cells away. They found that blocking the molecule causes stem cells to stay at the site of a lesion or injury. As a result, they may now have a way to direct the healing ability of stem cells to specific places in the body.

For information: Timothy Kennedy, Montreal Neurological Hospital and Institute, 3801 University Street, Montreal, Quebec, Canada H3A 2B4; phone: 514-398-6644; email: timothy.kennedy@mcgill.ca; Web site: www.mni.mcgill.ca/

FLOOD-RESISTANT RICE

A new breed of jasmine rice has been genetically engineered to not only resist common pests and diseases, but also tolerate floods, drought, and high salt conditions. The experimental variety was developed in Thailand, the largest exporter of rice in the world. The new rice is scheduled to be available for consumption by 2012. Researchers identified the best “parent” plants by using genetic markers to isolate the specific traits desired. They then cross bred the plants to produce their “super rice,” which can withstand up to three weeks of flooding as well as damage by the brown plant hopper and bacterial leaf blight.

For information: Dr. Apichart Vanavichit, Rice Gene Discovery Unit, Kasetsart University, Kamphaengsaen, Nakorn Pathom 73140, Thailand; phone: +66-34-355192; fax: +66-34-355195; email: apichart@dna.kps.ku.ac.th; Web site: dna.kps.ku.ac.th

THIN FILM SOLAR CELLS

A new breakthrough could change the way we think about solar technology as a viable alternative energy source. The new PowerSheets are made by printing a layer of solar cells onto sheets of aluminum foil. The solar-absorbing “ink” is a mix of copper, indium, gallium, and selenium nanoparticles, which creates a uniform coating only one-one hundredth the thickness of a traditional solar cell absorber layer. The result is a low-cost panel that could be “printed” on a variety of surfaces from roofs to windows, and even on the tops of 18-wheelers. The new technology costs about 30 cents per watt of energy-generating capacity, as compared to \$3.00 per watt for their silicon-based counterparts. They are also lighter in weight and easier to install. The company plans to scale up for full production in 2008, and will soon become the largest manufacturer of solar cells in the world, producing 430 megawatts of solar cells annually.

For information: Martin Roscheisen, Nanosolar, Inc., 5521 Hellyer Avenue, San Jose, CA 95138; phone: 408-365-5965; Web site: www.nanosolar.com

LIGHT-SPEED DATA STORAGE

The next big thing in data storage is holographic drives. By storing information in three dimensions, they are capable of holding up to 30 times more than a traditional DVD. And since more than a million bits of data can be stored with a single flash of a laser, transfer rates are also significantly higher. Data is recorded by burning a “checkerboard” pattern into a light sensitive gel using two lasers. The angle of the lasers can be varied so that hundreds of unique holograms can be recorded in the same volume of material. It is read back by deflecting a beam off of the hologram and projecting it onto a

detector. The first versions of holographic drives (soon to be available) will hold up to 300 gigabytes.

For information: InPhase Technologies, 2000 Pike Road, Longmont, CO 80501; phone: 720-494-7420; fax: 720-494-9606; Web site: www.inphase-technologies.com

NUCLEAR BATTERY

The Hyperion Hydride Reactor, a new technology from Los Alamos Laboratory, may be the answer to the need for cost-effective power sources in remote areas. Portable enough to be transported by rail car, it's less expensive to install and operate than traditional reactors or carbon-based fuel systems. But with an output of 27 megawatts, it's powerful enough to run a town of 25,000 homes. Hyperion runs on uranium hydride, which is refueled by the manufacturer approximately every five years. In comparison to other types of reactors, it produces only a fraction of the waste and uses no water, so there is no danger of pollution to the local water supply. With no moving parts to corrode or break down, Hyperion is inherently safer, and it's designed to be buried at the site to protect against the possibility of tampering.

For information: Hyperion Power Generation, Inc., 369 Montezuma Street, Suite 508, Santa Fe, NM 87501; phone: 505-216-9130; Web site: www.hyperionpowergeneration.com

3-D CHIPS

For nearly 40 years, transistor density has doubled every two years (just as Moore predicted). But there will come a time in the not-too-distant future when two-dimensional semiconductors will reach their limits. So chip manufacturers are already looking at how to reduce size and speed up performance by going three-dimensional. Through-silicon-via (TSV) technology stacks chips vertically, interconnecting adjacent layers by forming holes between them and filling the gaps with metal. The result is an extremely high density, multifunctional transistor that boasts superfast processing speeds in a very small package. The first of these chips are slated to become available this year.

For information: IBM Corporation, 1 New Orchard Road, Armonk, NY 10504; phone: 800-426-4968; Web site: www.ibm.com

TURNING TRASH INTO OIL

In the U.S. alone, about five million tons of hydrocarbon-based auto parts are put into landfills every year. But a new recycling system called Hawk will soon begin turning some of this waste into oil, diesel fuel, and natural gas. Hawk uses precisely tuned, high frequency microwaves to break the molecular bonds in foam, rubber and plastics. This releases the hydrocarbons, allowing the fuel and oil to be extracted and reducing the volume of the waste by up to 65 percent. The process produces no emissions, and actually generates 18 times the energy that it consumes. The patent-pending development can also be used to recover energy from shale, coal, methane and hydrogen gas.

For information: Global Resource Corporation, Bloomfield Business Park, 408 Bloomfield Drive, Unit 3, West Berlin, NJ 08091; phone: 856-767-5661; fax: 856-767-5664; Web site: www.globalresourcescorp.com

INTERVIEWING IN CYBERSPACE

A new technology has been developed that will allow prospective employers to see how potential employees present themselves in the virtual world. Called Synthetic Interview, it allows candidates to record answers to common queries. When the interviewer asks a question, their database of responses is searched to find the appropriate response, and the interviewee's "virtual self" answers as if they were speaking face-to-face. The system will also allow candidates to demonstrate artwork, projects or models online. It will initially be deployed to facilitate an automated internship selection system. Other applications for the technology could include workforce training, museum exhibits, or animated parts catalogs.

For information: Harrisburg University of Science and Technology, 304 Market Street, Harrisburg, PA 17101; phone: 866-424-8648; Web site: www.harrisburgu.net

Technotrends is published 12 times a year by Burrus Research, Inc., a research and consulting firm that monitors global advancements in science and technology and their direct impact on business and consumers. Patti Thomsen, Editor P.O. Box 47, Hartland, WI 53029-0047. To subscribe, call 800-827-6770, or email office@burrus.com. © 2007 Burrus Research, Inc.