TECHNO TRENDS
THE BIG IDEAS THAT ARE CHANGING EVERYTHING

TAKING SALES TO THE NEXT LEVEL, PART I

BY DANIEL BURRUS, CEO OF BURRUS RESEARCH

As a salesperson, you're trained to ask customers what they want in terms of your product offerings. That's wise advice. However, if you only ask customers what they want and then give it to them, you're missing the biggest opportunity that has ever come in front of you.

Realize that clients will always under-ask because they don't know what is possible. Think about it…No customer ever asked for a fax machine. They didn't know it was possible to send printed communication via a phone line. No customer ever asked for an iPod. They didn't know it was possible to listen to music without some sort of CD or spinning device. People don't ask for things that they don't know exist.

Technology allows us to do things that were once thought impossible. So for salespeople, while it is important to ask customers what they want and then to give it to them, realize that by doing so you're merely competing with your competitors. Chances are your competitors are asking customers the same questions, they're getting the same answers, and they're providing the same solutions.*Continued on page 2*

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When that happens, you end up competing on price and not differentiating yourself.

Therefore, the Golden Rule of sales is to give people the ability to do what they currently can't do but would really want to do if they only knew they could have done it. That's so much more profitable than simply giving clients what they ask for. The key is that you have to look a little bit further into your customers' predictable needs based on where they're going. Only then you can see unmet needs and new opportunities.

At this point many salespeople might say, "But I don't create the products; I just sell them. How can I deliver what customers don't know is possible?" The answer lies in how you can redefine various aspects of your offering. Consider redefining your product. Today, it's not about high-tech; it's about higher-tech. In other words, it's not about your product; it's about how your clients use it. Think about the products you sell. Sure, your customers are probably using the product for what it was intended to do. But could the same product help in another department? Could it impact the effectiveness of the company in some other way? Could it do something else or someting more for your customers? Analyze how people have always used your product and think of other creative applications.

That's how you redefine your product so it adds more value and does what no one ever thought to ask. Next month, I will show you how to redefine your customers and the value you bring to them.

TECHNOLOGY NEWS HIGHLIGHTS

PLASTIC FROM WEEDS

A new method for synthesizing polypropylene from weeds could reduce carbon dioxide emissions associated with manufacturing this widely used plastic by up to one-third. In the first step of the process, cellulose in the plant material is decomposed into sugars. Genetically engineered bacteria then ferment the sugars to produce propanol, which is used in turn to create polypropylene. The process yields one kilogram of plastic for every 2-3 kilograms of weeds.

For information: Research Institute of Innovative Technology for the Earth, 9-2 Kizugawadai, Kizugawa-shi, Kyoto 619-0292, Japan; phone: +81-774-75-2300; Web site: www.rite.or.jp

ATOMIC SCALE STORAGE

IBM scientists recently described a technique that could make it possible to store information (and eventually compute data) at the level of individual atoms. Using a scanning tunneling microscope, they were able to observe the magnetic orientation of iron and manganese atoms at low temperatures on a thin layer of copper nitride. This is an important first step in controlling the magnetic direction of atomic structures so that they can be engineered on a larger scale for reading and writing digital ones and zeroes. It also brings researchers one step closer to harnessing the power of atoms for quantum computing, which would allow powerful computers to be made from components that are magnitudes smaller and faster than anything we have today.

For information: IBM Almaden Research Center, 650 Harry Road, San Jose, CA 95120; phone: 408-927-1080; Web site: www.almaden.ibm.com

METHANE AS FUEL FOR CARS

For methane to become a viable alternative automobile fuel it needs to not only be efficient to produce; it must also be capable of being stored at a high enough density to keep tanks at a practical size. Recently, Japanese researchers developed two technologies to address these issues. Although methane is naturally released when sewage and other solid waste decomposes, the yield can be boosted by 28 percent if the garbage is first liquefied by adding a special bacterium found in hot springs. Using this method, as much as 2.3 cubic meters of methane can be produced per 30 kilograms of waste. Once produced, the methane is then stored in cylinders packed with highly porous activated charcoal, which is produced by baking the fruit of palm trees. When the gas is lodged in the millions of tiny holes, researchers found that they could pack up to 2.6 cubic meters of gas into a 50-liter tank. In contrast, an empty 50-liter cylinder could hold only one-half cubic meter of pressurized methane.

For information: Osaka Gas Co., Ltd., 4-1-2 Hirano-machi, Chuo-ku, Osaka 541-0046, Japan; phone: +81-6-6205-4503; fax: +81-6-6222-5831; Web site: www.osakagas.co.jp

SUGAR BATTERY

A new type of battery is currently under development that generates electricity by chemically breaking down glucose using enzymes. The only by-products are water and carbohydrates, and the cells can be reused simply by replenishing the glucose solution. In initial testing, a single cell was capable of producing 50 milliwatts of power, and four cells linked in series successfully powered an MP3 player.

For information: Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo 108-0075, Japan; Web site: www.sony.net

3D LCD

A new liquid crystal panel has been developed that allows 3D images to be viewed with the naked eye. Traditional methods of generating three-dimensional pictures cause the image to appear in front of the screen, making it fatiguing for the viewer to focus. In the new display, light passes through the crystal layer from 72 different directions to produce a 3-D image that coincides with the focal point of the viewer's eye for easier viewing. The 22-inch 9.12 mega pixel display also has greater resolution than high definition resulting in clear, realistic pictures.

For information: Tokyo University of Agriculture and Technology, Department of Electrical and Electronic Engineering, 2-24-16 Nakacho, Koganei-shi, Tokyo 184-8558, Japan; Web site: www.ee.tuat.ac.jp/english/

SHOPPING MADE SIMPLE

Tired of running from store to store looking for that perfect gift? A new service called Slifter is designed to make shopping easier than ever by giving users the ability to search for specific brands or products, compare pricing, and locate the nearest retailer, all from their mobile phone. Once the desired product is located, Slifter will provide a physical address and phone number so you can run right out and buy it. Or, you can email a description and images to yourself, complete with a link to the product on that retailer's Web site. The basic package (which is free) requires the user to enter the zip code of their current location, but a GPS-enabled version is also available (to Sprint users) for a nominal fee.

For information: GPShopper, LLC, 307 7th Avenue, Suite 2104, New York, NY 10001; phone: 212-488-2222, Web site: www.slifter.com

GAME THERAPY

Clinicians at Walter Reed Army Medical Center have found a creative application for interactive video games (like Wii and Dance Revolution) as a form of physical therapy. They have found that the variety of games available can help patients develop basic motor skills, increase range of motion, improve balance, and even relearn everyday tasks, such as throwing a ball and driving. When compared to doing repetitive exercises, patients also seem to prefer the element of fun and competition that video games provide. To date, over 6,000 patients have been treated using video games as part of their physical therapy regimen.

For information: Walter Reed Army Medical Center, Occupational Therapy Services, 7100 Georgia Avenue, Washington, DC 20307; Web site: www.wramc.amedd.army.mil/

PLASTICS THAT "HEAL"

A new bio-inspired polymer has been developed that is capable of self-repairing cracks multiple times over. Previous self-healing materials have used microencapsulated particles containing a compound that mixes with a catalyst to fill in the damage. But these were only effective for one-time repairs. The new plastic contains a microvascular network embedded in a substrate. Tiny capillaries deliver the compound to the site of the damage similar to the way capillaries in the skin deliver healing agents to a wound. The method has successfully repaired repeated cracks in the polymer layer up to seven times. Applications for the material include self-healing biomaterials that promote tissue growth.

For information: Nancy R. Sottos, University of Illinois-Urbana/Champaign, Department of Materials Science and Engineering, Beckman Institute, 405 N. Mathews Avenue, Mail Code 251, Urbana, IL 61801; phone: 217-33-1041; email: n-sottos@express.cites.uiuc.edu, Web site: www.mse.uiuc.edu

FINALLY, A PHONE THAT UNDERSTANDS *YOU*

Did you ever try to search for "Greek restaurants in the Chicago loop" on your smart phone using the typical thumb-typing technique? A new application called Vlingo will make it possible to simply speak into your phone (after all, isn't that what they were made for?) to locate what you want. Vlingo's advanced speech recognition technology combines Hierarchical Language Models (HLMs) with a multi-million-word vocabulary to achieve a high degree of accuracy. These HLMs use advanced statistical models to predict what users are likely to say based on context. The transcription appears in about two seconds, allowing the user to make any needed corrections before confirming the search parameters. Vlingo also takes into account past speech patterns to continually adapt and become more accurate over time. The platform is easily adapted to other functions like text messaging. A beta version is currently available for AT&T and Sprint phones.

For information: Michael Phillips, Vlingo, 17 Dunster Street, Cambridge, MA 02138; phone: 617-871-2987; fax: 617-868-0227; Web site: www.vlingo.com

ELECTRIC JET ENGINE

Funded by NASA and the United States Department of Defense, researchers have come up with a design for a jet engine that runs on electricity. Instead of burning jet fuel, the proposed engines would run on clean-burning hydrogen to cut greenhouse gas emissions. The key is a super-conducting magnet that could be cooled by liquid hydrogen to -321 degrees Fahrenheit or colder. At these temperatures, superconductors exhibit zero resistance so they could produce a strong magnetic field without wasting energy. It is estimated that such a turbine would generate power equivalent to a single-engine Cessna but with only half the mass.The researchers estimate that a prototype would cost between $1 million and $2 million.

For information: Phillippe Masson, Florida State University, Department of Mechanical Engineering, Mail Code 2870, Tallahassee, FL 32306; phone: 850-645-1198; email: masson@caps.fsu.edu; Web site: www.fsu.edu

ROBOTIC MOUTH

A prototype robot that can mimic the mouth movements associated with speech may provide researchers with valuable insights into the mechanisms of proper enunciation. The existing model can accurately replicate the tongue and lower jaw movements needed to reproduce Japanese vowel sounds. The next step is to add lip and palate movement for proper pronunciation of consonants. The robotic tongue is constructed of silicone supported by aluminum scaffolds and driven by eight pneumatic artificial muscles. Artificial muscles also control the jaw, which pivots on an axle. All movements are computer-controlled using a program that was developed based on magnetic resonance imaging of a human enunciating the sounds. The device could someday be used to enhance speech therapy or as a teaching aid for foreign language study. This could also be the way humanoid robots will communicate with us in the future.

For information: Tokyo University of Science, 1-3 Kagurazaka, Shinjyuku-ku, Tokyo 162-8601, Japan; phone: +81-3-5228-8107; Web site: www.sut.ac.jp/en/

"PRINTED" BLOOD VESSELS

In yet another application of inkjet printing technology, researchers have fabricated a prototype of an artificial blood vessel using a technique that could someday pave the way for a host of artificial organs. A combination of cells and gel were injected into a solution of calcium chloride in a spiral pattern. The gel solidified upon contact with the solution to form a tube one millimeter in diameter and about 3 centimeters long with an outer layer of smooth muscle cells and an inner layer of endothelial cells. Although the prototype broke apart easily, the team is working on developing a version that would be strong enough for practical application by getting the cells to proliferate or using a stronger compound to fix them in place.

For information: Tokyo Medical and Dental University, Institute of Biomaterials and Bioengineering, 2-3-10 Kanda-Surugadai, Chiyoda-ku, Tokyo 101-0062, Japan; Web site: www.tmd.ac.jp/TMDU-e/

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.