



TECHNO

THE BIG IDEAS THAT
ARE CHANGING EVERYTHING

TRENDS

MAKE YOUR COMMODITIES STAND OUT - DE-COMMODITIZE (PART II)

BY DANIEL BURRUS, CEO OF BURRUS RESEARCH



Last month I shared some suggestions and examples on how to make your product unique in the marketplace again. This month, I would like to share

two additional examples that can help you think creatively about the potential of your products and services.

TAKE ANY PRODUCT OR SERVICE AND WRAP A SERVICE AROUND IT

No matter how mundane your product or service is, chances are people have different needs around it today than they did a few short years ago. As the world, economy, and culture changes, so do people. Their reasons for buying something yesterday may be different from their reasons today. As such, you need to always be looking at what your customers' current and near-future needs are and then find ways to de-commoditize your product accordingly.

For example, most people think electricity is electricity. Whether you turn on your lights at home or at work, the current running through the wires is the same. Complicating the utility industry more is that in some locations, if you want to raise your rates, you have to get your customers to agree to the rate increase. So how can you de-commoditize electricity? Look at the customers' needs. Consider that most businesses these days have a lot of computers, servers and other equipment. *continued on page 2*

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DE-COMMODITIZE *(continued from page 1)*

They can't afford to lose their electricity no matter how big of a storm comes through. They also don't want the electricity to vary in voltage, as that can harm sensitive equipment. So what if the electricity company offered "digital electricity," which never went out and never fluctuated? Yes, it would cost more, but if the need is there, people will pay for it. That's exactly what happened when one electricity provider started offering its business customers digital electricity. Big companies like Microsoft, Google, and Yahoo signed up. But this electricity company shouldn't stop there. Today's homes also have multiple computers, entertainment centers, gaming equipment, and other things connected to electricity. There's no reason that consumers wouldn't want digital electricity as well. So look at your product or service and identify a new need people have. Then, put a service wrapper around the item so you can charge more for it.

ANALYZE ALL YOUR OFFERINGS

Look at every product and service you have and ask, "Why is this item a commodity?" Then ask, "What can we do to make it different?" For example, look at the features and functions of your products, how things are housed, how convenient the product or service is, what the customer experience is like, how something is processed or made, etc. With the bottled water example, could you change the bottle, filter the water more, or add flavors or vitamins to it? If you sell coffee, could you enhance the customer's experience or change a familiar product into something unique? For example, Starbucks moved meeting for a cup of coffee from the local diner to a relaxing coffee shop. Then they took good old-fashioned coffee and transformed it into tasty coffee drinks that even non-coffee drinkers would love. Between flavoring hot coffee and blending iced coffee, they made drinking coffee an experience rather than a commodity you buy at the grocery store.

CONTINUOUSLY DE-COMMODITIZE

The key to really understanding and embracing this concept is to realize that every product and service can be de-commoditized. Yes, it takes some creativity, thinking, and trend watching. But the biggest thing it takes is for you to get rid of your assumption that something can't be de-commoditized. Most of us have learned to live with commodity items. So maybe tissues are tissues, but chances are the ones you buy and pay more money for are softer, or they have aloe, or they have anti-virus ingredients, or they come in a designer box. The possibilities for changes exist for everything. As you de-commoditize your items, remember that if you de-commoditize once and sit back, that de-commoditized item will soon become a commodity. So do continuous de-commoditization. Not only will you attain better margins and accelerated growth based on hard trends, but you'll also find yourself positioned ahead of the competition.

TECHNOLOGY NEWS HIGHLIGHTS

RELIABLE SPEECH RECOGNITION

A new speech recognition algorithm has been developed that boasts an accuracy of 99 percent. Like currently available systems, the program encodes speech patterns and transmits them to a server where they are compared to a database of words. The improved performance was achieved by increasing the size of that database by about 30 times – to nearly one million words. In order to keep the response time within acceptable limits, however, the developers also created a hierarchy of the most frequently-used words to speed the search. The entire application is contained on a chip which can be incorporated into cell phones, navigation systems and remote controls. A Japanese version may be available as early as this fall.

For information: FueTrek, Shin-Osaka Prime Tower 18F, 6-1-1 Nishinakajima, Yodogawa-ku, Osaka-shi, Osaka 532-0011, Japan; phone: +81-6-4806-3112; fax: +81-6-4806-3119; Web site: www.fuetrek.co.jp/en/index.html

SEAWEED FIGHTS FAT

Researchers recently reported that alginate – a dietary fiber found in sea kelp – may be highly effective in treating obesity. In laboratory tests, using an artificial gut, they evaluated more than 60 types of fiber. It was shown that alginate reduced the amount of fat that was digested and absorbed by 75 percent, making it more effective than most over-the-counter treatments available today. The team envisions adding the fiber to bread and other foods, and initial taste tests are

encouraging. Clinical trials will soon be underway to evaluate the effectiveness of the additive as part of a normal diet.

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LIGHTWEIGHT LCD TVs

A new LCD technology that uses plastic instead of glass as a substrate promises to reduce the weight of LCD televisions by up to 50 percent while increasing durability. Up to now, LCD panels have been fabricated using glass because of its heat-resistant properties. But researchers have found that applying a thin layer of silicon dioxide to polycarbonate provides the same level of thermal protection at a fraction of the weight. In addition, it allows for the integration of higher-power devices which will lead to clearer images. The technology is expected to become available commercially within three years.

For information: Teijin Limited, 6-7, Minami-hommachi 1-chome, Chuo-ku, Osaka 541-8587, Japan; phone: +81-6-6268-2132; Web site: www.teijin.co.jp/english/

SMART UNDERWEAR

The use of electrochemical sensors to monitor a person's vital signs is growing rapidly as they become more reliable and cost-effective. A recent application incorporates this technology into the waistband of underwear to track blood pressure and heart rate. Carbon electrode arrays were printed directly onto the elastic bands, allowing direct contact with the skin. The electrodes continuously measure hydrogen peroxide and NADH levels, both of which are associated with various biomedical parameters. Performance was unaffected by folding and stretching of the fabric. Numerous uses for this technology include monitoring activity levels in military, healthcare and sports environments. The method could also be adapted to measure stress enzymes or blood alcohol levels.

For information: Joseph Wang, University of California-San Diego, Department of Nanoengineering, 9500 Gilman Drive #0448, LaJolla, CA 92093; phone: 858-246-0128; fax: 858-534-9553; email: jow014@ucsd.edu; Web site: www.ucsd.edu

3D GAME SYSTEM

Nintendo recently released a plan to introduce a 3D version of its popular portable game system. The first to become available with such capability, it will require no special glasses, and will also feature significant improvements in battery life and wireless communications speed. According to reports, the system will include a 3D joystick and a force feedback mechanism that will enable players to sense the impact of collisions. An accelerometer would also allow the device to be manipulated simply by tilting it. The Nintendo 3DS is expected to hit the market later this year.

For information: Nintendo of America Inc., 4900 150th Avenue Northeast, Redmond, WA 98052; phone: 425-861-4918; Web site: www.nintendo.com

LIGHT-BENDING METAMATERIAL

Scientists have developed a material that bends light in the opposite direction it would normally travel – a phenomenon known as negative refraction. Based on a field of study called plasmonics, the metamaterial squeezes light through waveguides distributed throughout a single layer of silver. And, unlike previous metamaterials, it functions within the visible light spectrum. Potential applications include optical “superlenses” that would enable matter to be viewed at a molecular level. Because they can function at any polarization and over a wide range of incident angles, these materials could also greatly improve the efficiency of solar cells. Someday, they might even pave the way for an “invisibility” cloak.

For information: Harry Atwater, California Institute of Technology, Center for the Science and Engineering of Materials, Mail Code 210-41, Pasadena, CA 91125; phone: 626-395-4637; fax: 626-568-8743; email: csem@caltech.edu; Web site: www.csem.caltech.edu

NANO-CONDUCTIVE INK

A new conductive ink has been developed that maintains its rated conductivity even in thin coatings (down to one micron). The key is its use of graphene as a base. Because it requires no sintering (i.e. heating after printing), Vor-Ink™

can be used on a variety of inexpensive substrates, including paper, cardboard and label stock. It's flexible enough to be used in peel-and-stick applications, yet robust enough to withstand creasing. The manufacturer will work with customers to formulate products for specific applications from printed electronics to smart packaging.

For information: Vorbeck Materials, 8306 Patuxent Range Road, Unit 105, Jessup, MD 20794; phone: 301-497-9000; email: info@vorbeck.com; Web site: www.vorbeck.com

PLASTIC-EATING MICROBES

Plastic waste is fast becoming a global problem as tons of it is released into the marine environment each year. Toxic chemicals are absorbed into tiny fragments, which are in turn ingested by animals, endangering sea life. But researchers recently found that a certain species of bacteria rapidly colonized polyethylene (a polymer commonly used for shopping bags) forming a biofilm on the surface. This may be an indication that the microbes are capable of degrading the plastic along with the associated pollutants. Releasing the marine microbes into areas of the sea where litter is at its worst may be the answer to protecting this vital resource.

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GOOEY ROBOT

A prototype "morphing" robot is currently being tested as part of a Defense Department initiative. It uses a technique called "jamming skin-enabled locomotion" to squeeze through small holes and cracks. The palm-sized, soft robot resembles a partially inflated volleyball that moves around by inflating and deflating air pockets within its silicone shell. Particles inside the pockets also shift to change its shape and redistribute its mass. The goal is to develop a device that can "ooze" through small openings for discreet reconnaissance.

For information: iRobot, 8 Crosby Drive, Bedford, MA 01730; phone: 718-430-3000; fax: 718-430-3001; email: info@irobot.com; Web site: www.irobot.com

REDUCING OUR CARBON FOOTPRINT

One of the U.K.'s largest dairies will soon be generating 75 percent of its energy from its own waste. By employing liquid anaerobic-digestion (AD) technology, they aim to reduce their carbon footprint by up to 65 percent. Biogas produced from the liquid animal waste will be used to feed a combined heat and power (CHP) system capable of generating over 1500 megawatt hours of electricity and over 1600 megawatt hours of heat every year. The new system should be fully operational by August. According to experts, replicating such a system throughout the U.K. dairy industry could reduce carbon dioxide emissions by 346,000 tons annually.

For information: BV Dairy, Wincombe Lane, Shaftesbury, Dorset, SP7 8QD, United Kingdom; phone: +44-01747-851-855; fax: +44-01747-851-0022; Web site: www.bvdairy.co.uk

RECYCLING CIGARETTE BUTTS

Chinese researchers may have found a use for the 4.5 trillion cigarette butts that are discarded every year. It's been discovered that, when immersed in water, they release a number of chemicals that can be used to protect steel pipes from rusting. The discovery could be significant for the oil industry where millions of dollars are spent annually on replacing or repairing corroded pipes. And in China, where 300 million people consume one-third of the world's cigarettes, a means to recycle the butts could represent a big step toward a cleaner environment.

For information: Jun Zhao, Xi'an Jiaotong University, School of Energy and Power Engineering, 28 Xianning West Road, Xi'an, Shaanxi, 710049, P.R. China; Web site: www.xjtu.edu.cn/en/

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