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TECHNOTRENDS[®]

NEWSLETTER

*The biggest ideas that are
changing everything*

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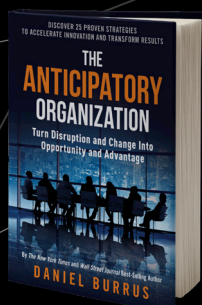
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Anticipatory Customer Service

By Daniel Burrus, CEO of Burrus Research

For many consumers, there's no bigger oxymoron than "customer service."

Rather than a satisfying experience, the term conjures up frustrating memories. Endless on-hold telephone time waiting to talk with a service representative. Talking to a customer service person but not understanding half of the words they are saying. Wandering up and down store aisles in search of a particular item with no one in sight to offer any direction—or worse, talking with an employee who has even less of an idea of where to look than you do.

Fortunately, customer service doesn't have to be that way, provided you adopt an anticipatory approach to every element of the overall customer service process and experience. That can greatly improve your entire menu of customer service features, resulting in greater customer satisfaction and loyalty.

What a customer thinks is the issue with a product or service may, in fact, be something totally different.

What's the (Real) Problem?

A core component of my [Anticipatory Organization Model](#) focuses on a tendency we all have to misinterpret what we assume is obvious. That's particularly the case when it comes to customer service—more specifically, what a customer thinks is the issue with a product or service may, in fact, be something completely different.

For example, a customer is shopping for a food processor but thinks that the cord is too short and would be inconvenient to use in the kitchen. Knowing the customer's potential problem is not the real problem; the service rep asks a few more questions, and it becomes clear that the customer's kitchen is simply poorly organized, meaning that the solution is not necessarily a longer cord but a reorganization of her cooking space.

That solution not only helps the customer rethink and maximize her use of limited kitchen space, it also opens up the possibility of an additional sale. In the end, it solves a problem that the customer initially was unaware of—that her kitchen organization is making her life more difficult and that a few easy changes could improve her daily experience.

That underscores the benefit of not necessarily assuming that the "real" customer issue is the one you see in front of you. By preparing to ask additional questions, a customer service professional can get at the customer's genuine need—and solve a problem that wasn't at all evident from the outset.

The Power of Pre-mortems

Pre-solving predictable problems is one of the core strategies of anticipatory customer service. One of the best ways of doing this is to conduct a pre-mortem.

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TECHNOLOGY NEWS HIGHLIGHTS

Blockchain for Real Estate

As new uses for blockchain technology unfold, more and more investors are beginning to realize its potential for more than purely financial transactions. Originally designed to support digital currencies (like Bitcoin), people are already using blockchains to exchange other commodities – such as excess energy – and real estate is a logical “next frontier” for this rapidly growing network.

The world's first property to be acquired using a blockchain is a flat in Kiev, Ukraine, which sold for \$60,000 to a buyer who never set foot in the country. A blockchain-powered platform has many benefits when it comes to expediting such transactions.

By streamlining functions like listing, payment and legal documentation, many of the fees charged by intermediaries (brokers, lawyers and bankers) will be reduced or eliminated, so

buyers and sellers will get more for their money. Simplifying the process and reducing the time to complete a transaction will also increase liquidity. The very nature of blockchains also enables fractional ownership, with the ability for investors to buy and sell tokens as they wish.

Perhaps the biggest challenge will be getting governments to embrace this new paradigm of property ownership, since registering of deeds is still controlled by government authorities. This will require changes to legislation on state, local and national levels, which will undoubtedly take time; however, companies are already involved in negotiations with government agencies to address these issues.

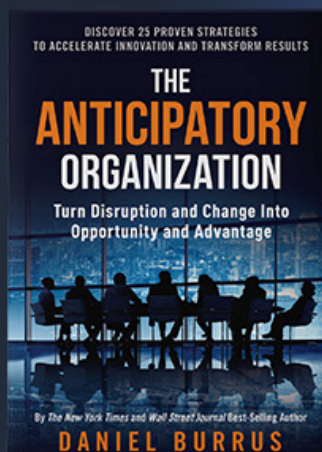
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Real-Time Translator App

Google recently announced the release of Pixel Buds, a new set of earbuds that enables real-time, two-way translation on demand.

Compatible with the Pixel 2 phone, the headset can also be used to make phone calls and listen to music, but when used in conjunction with Google Translate, they enable a user to communicate in 40 different languages.

Pressing a button on the right earbud activates the Google Assistant. Say "Let me speak Japanese," and your speech is automatically translated into Japanese and projected through the phone's speakers.

The translated reply is routed through the earbuds – like having your own personal translator.

Pixel Buds have a battery life of about five hours and currently list for \$159.

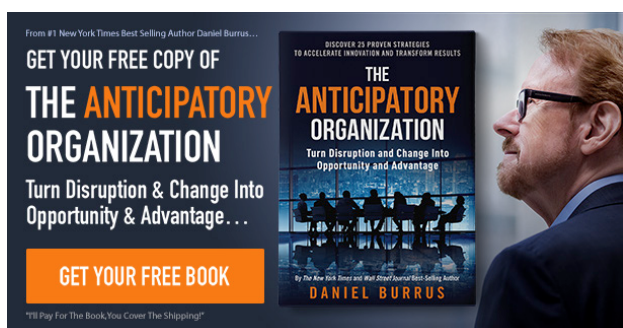
For information: Website: https://store.google.com/us/product/google_pixel_buds?hl=en-US

Cool Paint

A revolutionary new paint has been developed that cools a building using the sun – and the stronger the sun, the cooler it gets! Dubbed SolCold, it's based on a principle known as anti-Stokes fluorescence in which the amount of energy emitted by an atom or molecule is greater than the amount of energy it absorbs. The key is to selectively absorb the proper wavelengths of energy so that the net reaction causes a cooling effect.

The researchers came up with a two-layer approach that, once applied to the surface of an object, is no thicker than a business card. The outer layer filters out much of the sun's broad spectrum to absorb infrared energy (or heat) while the inner layer emits higher energy photons (light). Unlike existing cooling paints that lower heat absorption simply by scattering the energy absorbed, the new material actively lowers temperatures by pulling energy out. In simulations, it has been demonstrated that applying the paint to a roof could reduce the temperature on the top floor of a building by up to 10 degrees Celsius (about 18 degrees Fahrenheit). The material could also be used to cool objects in space by conducting excess heat from solar radiation and equipment away from the surface.

SolCold currently costs about \$300 to cover an area of about 100 square meters. The team is



currently raising funds with plans to conduct pilot tests on buildings within the next two years.

*For information: Yaron Shenhav, CEO, SolCold, Charles Passman
St. 48, Herzliya, Israel; email: info@solcold.com; website: <http://solcold.com/>*



Inhibiting Hair Loss During Chemotherapy

One of the most feared side effects of chemotherapy is hair loss. One study reported that 8 percent of women actually consider refusing treatment because of it. Options to reduce hair loss include scalp-cooling caps, which keep chemo from destroying the hair follicles by constricting the blood vessels that surround them. However, besides being only about 50 percent effective, the caps are costly, extend treatment times and can cause headaches in some patients.

A new approach is now being studied that takes into consideration the roles of specific proteins and their relation to hair growth. During chemotherapy, a protein called p53 is activated, which helps to suppress the growth of rapidly dividing tumor cells. Unfortunately, because hair cells also divide rapidly, their growth is inhibited as well. But further investigation revealed the mechanism by which this occurs in the scalp – namely, that p53 blocks a hair-growth protein called WNT3a. So they decided to try injecting WNT3a into the skin of mice undergoing chemo.

After five days, the treated areas showed no hair loss, while the untreated areas had gone bald.

The researchers are now looking at ways to adapt the treatment for human testing. In order to treat as many follicles as possible, one solution may be to inject the protein using an array of fine needles. It may also be able to be applied as a gel or cream.

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3-D Printing with Metal

The ability to use metals for 3-D printing has the potential to revolutionize multiple industries by increasing the flexibility of design and product customization while eliminating economy-of-scale constraints. But currently, only a few alloys are suitable for the process because the dynamics of melting and cooling cause metals like aluminum to weaken and crack.

Recently, materials scientists discovered that introducing zirconium nanoparticles (also referred to as nucleants) into the metal being printed resolved this issue by providing a crystalline framework that controls the solidification process. In particular, they found that high-strength aluminum alloys could be

3-D printed successfully using selective laser melting techniques.

This method could also be applied to other alloys and for a broad range of 3-D printing processes, including electron-beam melting or directed-energy deposition. One of the first applications for the new materials is likely to be in the aerospace industry, where 3-D printable metals could be used to build lighter, faster aircraft.

For information: HRL Laboratories, 3011 Malibu Canyon Road, Malibu, CA 90265; phone: 310-317-5000; fax: 310-317-5483; website: <http://www.hrl.com/>



Editing Genes Inside the Body

In recent months we've reported on several studies using CRISPR technology to treat disease. Although the technique has only been around for about five years, dozens of trials in humans have already been proposed. Most of these involve removing cells from the patient, editing their DNA and reintroducing them into the body. Now researchers are working on ways to edit the DNA without having to remove the cells at all.

Editing genes with CRISPR requires two elements: a protein that cuts the DNA to disable the faulty gene and a fragment of RNA that

informs that protein where to make the cut. But proteins and RNAs are large molecules that do not enter cells readily. So researchers are investigating different ways to deliver the CRISPR components to tissues inside the body.

One method utilizes fatty particles to target diseases of the liver. In one study on mice, the company reported successfully disabling a gene involved in a rare genetic disease with a high degree of efficiency and no ill effects. Another company is using gold nanoparticles to carry the CRISPR components into muscle to treat debilitating muscular dystrophy. Although the method was only effective in 5 percent of the cells, it was successful at improving muscle strength in mice, and repeated injections could produce further improvement over time.

A third research team has built on the muscular dystrophy study by using a virus to more effectively deliver the CRISPR genes throughout the body. But this carries a risk that the CRISPR gene could linger in the system, causing unwanted effects. So, yet another team is looking at ways to develop a "kamikaze" CRISPR system that automatically disables after a set period of time. They have tested the system on Huntington's disease in mice, successfully disabling the gene with 65 percent efficiency.

With advances being made daily, gene editing will likely be used to target many more diseases in the not-too-distant future.

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Anemia Cure

For the millions of people who suffer from chronic kidney disease, anemia is a constant concern. As the kidneys degenerate, their ability to produce erythropoietin (EPO) – a hormone that triggers the production of red blood cells – is compromised. As a result, too little hemoglobin is available to carry oxygen around the body, and patients can experience fatigue, shortness of breath, dizziness, rapid heartbeat, and an inability to think clearly. Over time, the lack of oxygen can also cause permanent damage to the brain, heart and other vital organs.

While EPO has been made commercially, it is costly and needs to be administered regularly by transfusion. Recently, a new approach was developed that uses stem cells from human cord blood to produce EPO-generating cells. The cells were transplanted into the kidneys of mice suffering from a type of kidney anemia. Four weeks later, after a single transplant, EPO levels in the treated animals were 20 times higher than in the controls, and their hemoglobin levels remained normal for the remainder of their seven-month lifespan.

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Bacteria Checkup

For years we've been hearing that keeping the bacteria in your gut at healthy levels is important for long-term health. Study after study has illustrated the link between gut inflammation and a variety of health problems, including autoimmune disorders, depression, hormone imbalance and neurological diseases. So how do you know whether your gut bacteria are "healthy"? And if not, what can you do about it?

A new start-up company was recently founded with the mission of wiping out chronic disease, and the road to get there includes kits for regular screening of the microorganisms in your intestinal tract. For \$59 per month or \$599 per year, you can submit stool samples and receive semiannual reports on the health of your digestive system, including the composition of your microbiome (the bacteria and yeast that live in your gut). The technology utilizes artificial intelligence to analyze the effects of these bacteria on the immune and metabolic systems in the body and includes nutritional recommendations to keep and maintain a healthy gut based on your personal results – since there is no such thing as a one-size-fits-all diet.

The company hopes to expand its diagnostic test kits to include heart disease and obesity.

For information: Viome, Inc.; website: <https://www.viome.com/>

Anticipatory Customer Service

continued from page 1

A postmortem occurs after something goes wrong and a team wants to learn from the mistakes so they don't keep repeating them. A pre-mortem is used before a product or service or any change is introduced as a way of predicting problems and pre-solving them. That allows you to address problems and issues pre-actively and, in turn, dramatically reduce the problems and poor experiences customers would otherwise have.

Let's run through a brief pre-mortem with the food processor example we just used. One possible objection was the one the customer raised, that of the cord being short. A pre-mortem conducted by the manufacturer of the food processor would reveal that potential customers might complain about the short chord.

The manufacturer would then pre-solve the problem by saying on the package that it's designed with safety in mind and has a shorter cord to minimize the hazards of lengthy cords near heat sources. In addition, the processor is best suited to small kitchens, something that could suggest a larger food processor if the customer's needs warranted it. In this case, the problem is pre-solved before it ever gets to the customer service representative.

Customer service can pre-solve the problem by placing this model with other kitchen items built to maximize limited kitchen countertop space.

Pre-mortems can also apply to the demographics of your customer base. The more you pre-solve predictable problems about what your customers value or even need, the better you can craft their experiences. For instance, if you sell to a large number of baby boomers, having nice restrooms and comfortable seating in your store will likely

resonate with them. By contrast, millennials and other young people will most likely not need restrooms or places to sit down, but they will embrace reliable Internet connectivity.



Customer Service as a Shopping Experience

Another common mistake is to put too much focus on customer service issues that crop up after a sale—issues and problems that only occur after the customer has actually used a product or service.

But customer service begins well before that. For instance, what is the customer's actual shopping experience? Did he or she wander your store looking for a particular item with no one at the ready to help with actionable information or directions? Further, was the customer able to use a text message to quickly get the mobile app for the store as they entered that would guide them to whatever they needed as well as showing them the store map with the real-time location of customer service people? Simply touch the glowing blue dot representing a sales rep or the red dot for a service rep, and they will know you need help and come to you.

That puts customer service at the front end of the overall customer experience and, in so doing, offers additional opportunities to boost customer satisfaction. For instance, this type of app can greatly reduce the frustration of having

a question with no one around to answer it. Add to that a loyalty component that alerts customers to personalized short-term sales and other deals, and customers receive more and better customer service that not only streamlines the shopping experience itself but also saves them money.

Technology can also be applied in other situations. For instance, one of the most dreaded scenarios involving customer service is holiday gift returns—post-Christmas, Hanukkah, Father's Day or any other day on the calendar that involves gifts. The result: endless lines at the return window as dissatisfied recipients look to put unwanted items back on the shelf.

While that may seem a formula for unavoidable frustration, technology can, at the very least, make an unpleasant experience a bit less maddening.

For instance, a store app that has a built-in pager function can notify customers when their turns at the return window come up, all the while allowing them the freedom to walk around the store. And to further the experience, the app can offer them one-time specials, in part as a means to “apologize” for the inconvenience of having to return an item. That proactivity can shift a customer's focus away from simply returning an item to buying something else in its place.

On Hold? Here's Help

Still another customer service pitfall is the telephone help line. As all of us are aware, a service designed to offer help and guidance can turn into a customer service no man's land characterized by endless time on hold and, as often as not, customers who hang up out of sheer frustration or boredom.

Technology can help address this issue as well. Thanks to artificial intelligence and virtual assistants, help lines can be equipped with responsive answer capabilities with increasingly human-like experiences that can be used by customers to address most commonly asked

questions and issues 24/7. And if by chance a customer's topic is particularly complicated—or that person simply doesn't want to talk to a machine—the system can readily transfer the caller over to a trained, live professional. Not only can such a system make hold times less of an issue or even nonexistent, it can also free up personnel to handle those calls that require personalized problem solving and a human touch.

The Best Customer Service Should Be the Least

The heading of this section may seem to run counter to many of the ideas and principles I've outlined so far. At first glance, the term “least customer service” may seem at the core of the problem itself—too few people around to answer questions or limited direction and feedback with which to improve the overall customer experience. But to my way of thinking, the very best customer service is the least amount of customer service necessary. By improving the manufacturing, shopping and sales process on the front end through varied anticipatory ideas and concepts, you inherently minimize any complaints or problems that may occur later on. And with an anticipatory mindset, you're that much better equipped to deal with any resulting issues and concerns.

Looked at another way, that's not a minimal approach derived from oversight or neglect. Rather, it's focused on positive, efficient outcomes—should a customer require help of some sort, the necessary resources and people will be in place to address the situation. But if helpful technology and employees with an anticipatory mindset can help in choosing the absolute best product or service from the outset, a rewarding shopping experience can occur of its own accord. In that respect, customer service is on standby, ready to help but, in many cases, unnecessary.

That can help make customer service less of an oxymoron, both for consumers and businesses of all sorts looking to enhance customer relationships and, ultimately, customer loyalty.

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