Remarkable things can happen when empathy for others plays a key role in problem-solving. In today's global marketplace, companies are being asked to design for increasingly diverse users, cultures, and environments. These design challenges can be so systemic and wickedly complex, the task of aligning all of a project’s stakeholders can seem impossible. But it’s not.

Design empathy is an approach that draws upon people's real-world experiences to address modern challenges. When companies allow a deep emotional understanding of people’s needs to inspire them—and transform their work, their teams, and even their organization at large—they unlock the creative capacity for innovation.

In this essay, we’ll explore how design empathy works, its value to businesses, and some ways in which it can be used to effect positive change. We’ll discuss the need for scaling and sustaining design empathy, so that its benefits can reach more people and have long-term positive impact throughout organizations. And we’ll offer stories from the edges of our own empathic design practice. Our goal is to inspire other designers and innovators to share their practices and to expand the conversation about empathy to include the business community-at-large.
Design Empathy: An Introduction
The definition of empathy is the ability to be aware of, understanding of, and sensitive to another person's feelings and thoughts without having had the same experience. As human-centered designers, we consciously work to understand the experience of our clients and their customers. These insights inform and inspire our designs. IDEO CEO Tim Brown describes design empathy as a mental habit (Brown, 2009). It is also a fundamental cultural value that allows our designers to develop concepts, products, services, strategies, and systems that are both innovative and responsive to actual user needs and desires (Black, 1998).

When empathic design first appeared in business literature in the late 1990s, it was described as a cultural shift. Researchers in various disciplines hailed the importance of emotion as not only a valid subject of study, but as one that was crucial to design research (Dandavate et al., 1996). Empathic design was presented as a process that involved observation, data collection and analysis, and iterative prototyping. Most significantly, the discipline was identified as a way to uncover people's unspoken latent needs and then address them through design (Leonard and Rayport, 1997). By responding to real, but unexpressed and unmet needs, design empathy promised to bring financial reward.

Learning from Fishermen
Back in the 1970s, a young industrial designer named John Stoddard joined Moggridge Associates in London. His first assignment was to redesign marine radios and on his first day—which he describes as a “wonderful shock”—he was sent to the fishing towns of Hull and Grimsby on England’s northeastern coast. Stoddard’s task was to meet with fishermen on their boats to get a real understanding of how they used radios. He returned to the studio a firm believer in the value of observing people and their context as part of the design process.

This approach, which cofounder Bill Moggridge brought to IDEO, provided the early foundation for our human-centered design practice. Since then, the scope of our work—once focused primarily on product design—has expanded to include digital innovation, organizational strategy, and global business challenges. We’ve learned that tackling these issues as if they were design problems, even though they are outside the traditional realm of design, leads to outcomes that are functional and emotionally meaningful for the people affected. Empathic design has proven useful in addressing increasingly large systemic challenges, such as education, healthcare, and organizational efficiency (Brown, 2009). This has inspired us to find ways to apply empathy in new contexts.

Designing for Increasingly Complex Systems
Some of those contexts have arisen from shifts in how people relate to one another and the world. Advances in information and communication technologies alter how we work, play, learn, socialize, and express ourselves. Consumers’ relationships with, and expectations of, companies are changing as well. Businesses worldwide are being held increasingly accountable for their long-term social and environmental impacts. This is driving many firms to adopt new policies and practices around energy conservation, sourcing, production, and sustainability. Products and services were never designed in a vacuum, but now everything is more evidently connected as part of a larger ecosystem. To succeed today, an ever-greater number of stakeholders must be considered during the design process.

We, as designers, have also changed how we think of success and impact. Success is not judged solely within the span of a project or product launch. The impact of design work must have staying power far beyond its final presentation, implementation, and market adoption. Talking with a few fishermen to discover what’s needed in a product is no longer enough. Design empathy must expand to suppliers,
buyers, and customers—the whole ecosystem of people and businesses involved. We see this first-hand at IDEO, and we suspect other designers are seeing it, too. In all this complexity, we believe that continuing to evolve how we practice empathy will be key to increasing the positive impact of design.

**HOW EMPATHY WORKS IN DESIGN**

Empathy is a powerful force. Research shows that when we are empathetic, we enhance our ability to receive and process information. Putting ourselves in someone else's shoes—a part of our subconscious behavior—causes measurable changes in our cognitive style, increasing our so-called field-dependent thinking. This type of thinking helps us put information in context and pick up contextual cues from the environment, which is essential when we're seeking to understand how things relate to one another, literally and figuratively. Research also shows that we are more helpful and generous after an empathic encounter (Decety and Ickes, 2011). Taken together, this empathetic behavior personally motivates us to solve design challenges.

Although empathy appears to be an innate ability, and men and women (on average) recognize other people’s emotions with equal accuracy, not everyone applies the approach in a work context. Empathy in design requires deliberate practice. We must intentionally seek opportunities to connect with people in meaningful ways and to set aside reactions and behaviors that will interfere with it. And, once empathy is achieved, it needs to be moderated: apply too much and our thinking loses focus; apply too little and the depth of our insight suffers.

The mechanisms for empathy in the brain are chemical and neurological. Zak (2012) has correlated feelings of empathy directly to the balance of the levels of oxytocin (the “cuddle hormone”) and cortisol (the “stress hormone”) in the bloodstream. When people witness trustworthy actions, their bodies respond with increased levels of oxytocin, creating feelings of trust and empathy.

Another study shows that empathic and analytical thinking are rival networks in the brain: the analytical network makes judgments independent of emotions, while the empathic network trusts blindly, at face value (Jack et al., 2012). What’s more, when one network is “on,” the other becomes suppressed. Knowing that, it’s important to point out that empathic design is not about being emotional all of the time. It's about creating a balance between empathizing with an experience and analyzing its nature and components. Managing this in the design process is an ongoing and exhausting, but highly rewarding collective effort.

**PUTTING DESIGN EMPATHY INTO PRACTICE**

A design environment that's built around trust will promote empathy, but designers also need to build self-awareness about the mode they are operating in, and to develop a mental habit of switching modes: To think and feel, rigorously and deeply.

Having some degree of compassion for others isn't difficult for most people. However, some of the qualities and behaviors that can make a person successful in business can stand in the way of achieving empathy. People who cannot temporarily let go of their role or status or set aside their own expertise or opinion will fail to empathize with others who have conflicting thoughts, experiences, or mental models.

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Empathic design also may be hindered by an unsympathetic culture within the larger organization. Management may lose touch with what customers and users are experiencing as its attention gets
drawn toward solving legal hurdles, reacting to competitive pressure, and overcoming technological obstacles – the stress of running a business can easily suppress a desire for design empathy. As IDEO’s David and Tom Kelley describe, many fears keep people from trying to go out and solve real problems (Kelley, 2012). Empathy is a counterforce to those fears: regaining perspective on what customers want and really care about can fundamentally change a business by presenting new opportunities and giving it a means to address them.

It’s possible to fuel empathy, or pivotal “out of ego” experiences, without a lot of effort. For example, imagine being asked to come up with a long-term vision for a brand of toys. Perhaps you’ve conducted lots of market research, but the analyses do not point you in any clear direction, nor connect you to the mindset of children. To kindle that sense of excitement and inspiration, you might simply get on the floor for a play-along with youngsters in the target age range, or arrange a toy-hacking party at a local school.

Sometimes it’s worth going the extra mile to develop emotional resonance with people we’re designing for. We have had teams do things like:

›› Shadow sales representatives and bank tellers on the job to understand their needs and challenges
›› Sleep on rubber sheets overnight at an elder-care facility to relate to spending one’s last months or years there
›› Participate in grueling endurance events to share athletes’ exhilaration and pain
›› Take an RV road trip through California to experience car culture

Seek Those Who Live on the Edge

In our fieldwork we look for diverse people and situations to promote empathy, which we internally refer to as “extremes.” These mostly ordinary people with extreme points of view—owing to their personality, circumstances, or culture—provide a broad range of experiences and well-developed perspectives that would be harder to identify if we looked at a random sample of individuals representing a range of the target demographics.

Figure 1. Clients join designers on a road trip to actively experience aspects of California’s car culture firsthand. Photo courtesy of IDEO.
“The future is already here; it’s just not evenly distributed,” as science-fiction novelist William Gibson is said to have observed. In order to innovate, we need to understand the intriguing, exciting, and lesser-known fringes of society, where the future is already at play. Why? Because the extremes prompt us to discover new meanings and interpretations for old things (Pantzar, 1997), which can help us determine how best to incorporate the latest technologies and use practices into our work.

And when designers cannot actively participate in an experience, it’s useful to find analogies to provide relevant insight. For a project related to wound care, after observing nurses changing dressings for large, hard-to-heal wounds we wanted to empathize more deeply with the patients. To better experience the fear of anticipated discomfort at the hands of a professional, one designer elected to have his chest hair waxed off. Research can be as creative an endeavor as the rest of the design process!

However we choose to gain empathy, it can help us to focus, prioritize, and defend our design decisions—all of which is necessary in the ever-evolving business of design innovation. Empathy also motivates design teams to keep going and provides energy to overcome the inevitable obstacles to bringing new offerings to life.

DESIGN EMPATHY IN ACTION: CREATING A SENSE OF PURPOSE

Danone is a multinational business that makes dairy products, bottled water, and other foods. In 1996, when the company partnered with the Grameen Foundation to open a yogurt manufacturing plant in the Bogra District of Bangladesh, no one knew how significant the small social business—designed to benefit families—would become for everyone involved. Since then, the partnership “has transformed Danone culturally,” says Danone project manager Marie Soubeiran (Bennett, 2012).

![Figure 2. A designer gets his chest waxed to empathize with wound-care patients. Photo courtesy of IDEO.](image-url)
At first, the effort focused on technical challenges in manufacturing design, milk sourcing, and formulation (Kiviat, 2010). Today, the plant operates on a community scale, using local milk to make a special nutrient-rich yogurt to help supplement Bangladeshi children’s dietary deficiencies. Employees throughout the company take pride in the company’s positive impact on other people’s lives, hanging pictures of the villagers in offices throughout Danone, Soubeiran says. The company’s empathy for consumers of its product—evident in its focus on their actual needs and its desire to empower them to help themselves—gives Danone a sense of purpose and direction, and spurs innovation elsewhere in the organization. Creative solutions developed at the factory (such as using enzymes to keep unrefrigerated milk fresh longer) have huge potential in other markets.

Danone’s experience echoes a phenomenon we’re seeing across industries. When a whole company expresses true empathy for its customers, employees enjoy a sense of clarity and purpose—and they do better work. As designers, we find that empathy helps businesses create and measure success in new ways. After all, the broadest definition of design is that it transforms current situations into preferred ones (Simon, 1996). When these preferred situations align with the goals of multiple stakeholders, everyone benefits. This is the promise of human-centered and empathic design.

WHAT’S NEXT: EVOLVING DESIGN EMPATHY
As we see with Danone, to be most effective, empathy cannot remain the privilege of an individual, a design team, or even a tight group of highly involved stakeholders. Nor can it endure only for the course of a project. If design empathy is to sustain impact throughout an organization, it needs ongoing support from the overarching culture. An empathic attitude needs to be championed, nurtured, and practiced regularly. People within the organization must learn to tell stories from an empathic point of view and to ask for empathy when it’s missing. Projects need understanding, enthusiastic champions who will tell and retell stories that keep empathy alive.

Encouraging this kind of inclusive championship is what we mean by “empathy on the edge,” and it requires addressing two related challenges:

1. Scaling. We need to involve greater numbers of people, in greater diversity, in “out of ego” experiences. More people need to connect with and care about others and work to make desirable changes happen.

2. Sustaining. We want to cultivate active, persistent “out of ego-ness” in organizations, bringing about a pervasive attitude and habitual awareness of the people who are affected by our decisions, beyond the life span of a specific project.
Here we’ll look at both edges—scaling and sustaining—by offering examples of how we’ve addressed each one in recent design challenges. Although admittedly imperfect, our experiments are intended to inspire others to create better ways of fostering design empathy broadly among individuals, teams, and organizations.

**SCALING DESIGN EMPATHY**

How do we scale empathy from one individual or team to a whole organization?

First, we are challenged to empathize with more diverse groups of stakeholders. In complex systemic challenges, there exist a multitude of actors, whether users or others, whose roles, needs, attitudes, abilities, and expectations influence the design requirements in some crucial way. Some complex design challenges involve people of different cultures, languages, and societies where traditional research approaches won’t help us adequately empathize with their experiences.

For example, research tools that worked to help design teams understand financial decision-making in the United States had to be replaced with activities that made sense for consumers in Ghana (Sklar & Madsen, 2010). The designers set up a stall to sell items at a community market, engaging rural villagers who came into town to shop and learning directly how they made their purchase decisions in the moment.

Second, we need to help larger, more diverse groups of people—entire teams, departments, and companies—have “out of ego” experiences. This also requires broadening the range of our research methods and techniques – one-on-one ethnographies in homes aren’t always the best way for facilitating empathic connections for large groups of people.

Here are some of IDEO’s recent experimental approaches to scaling empathy. Although these examples are drawn from our health-care projects, the learnings can be applied across industries.

**Progressive Discovery**

It can be difficult to empathise with people whose culture and values are fundamentally different. In the United States, which are often different than those in Ghana. This highlights the need for diverse empathy practices that can be applied in different cultural contexts.
In those situations, we need to craft a progressive journey of empathy and learning. In one case, an American company asked us to conduct research on urban Chinese women’s attitudes about contraception. When our designers realized the extreme differences in Chinese and American cultural attitudes, they knew they’d need more than a slide presentation to help the clients understand their target market. Our solution was a four-day journey of progressive discovery and empathy building.

On the first day, we shared four typical consumer profiles with a large group of clients, who then observed our interviews with four women and, through an interpreter, listened to their surprising reactions to products and concepts. Afterward, the clients struggled to understand how profoundly taboo sex is in China and how the culture affects women and their birth-control choices.

On the second and third days, we took the clients to interview abortion doctors at hospitals, to speak with pharmacists, and even to visit a Shanghai love hotel that rents rooms in three-hour increments. By the fourth day, the clients were ready to accept the realities of a society in which cultural norms are stacked against prophylactic pills—and begin to rethink the design of their offering accordingly.

**Analogous Experiences**

When it isn’t feasible to bring clients face-to-face with users in context, we can create analogous experiences to foster empathy. Analogous experiences help organizations see familiar ways of working with fresh eyes. IDEO sometimes puts clients through carefully crafted “feels like” situations to help them draw parallels between their own experiences and those of their customers. Designing analogous experiences often gives us more latitude and makes it easier to involve larger groups in the design empathy process, without sacrificing any of the emotional impact more traditional observations would provide. In fact, because they tend to require some effort on the clients’ part to engage, analogous experiences can have even more transformative power than the passive observation of users’ actual activities.

For example, IDEO worked with a hospital to improve its patient experience. The clients were immersed in patients’ day-in, day-out activities, but they found it difficult to reflect on how patients felt emotionally. Perhaps the environment was too close and too familiar; they’d already found ways to work around the countless challenges of a hospital. To help foster empathy, we designed an analogous experience to illustrate the patient experience.

We’d noticed that there was no boundary between “public access” and “backstage” at the hospital. If the facility were a restaurant, it would be as if diners ate in the kitchen among the chefs. We simulated this analogy—and invited the clients to dinner. Actors played the parts of waiters, who treated our guests in an incomprehensibly brisk manner. Diners were required to wear unflattering bibs.
Unexplained dishes came and went. There was a lot of waiting with no explanation.

The extreme nature of this analogous scenario was risky—not all participants appreciated the experience at first. But a debriefing conversation followed and later the experiment proved remarkably successful: The hospital workers who took part now actively seek ways to measurably improve the patient experience. Their first success was to speed up the process of discharging patients to the point where nearly 50 percent were able to leave before noon, exceeding the hospital’s goal of 30 percent.

**Long-Term Immersion**

For another project, we needed to ensure that a pharmaceutical company was truly empathetic to the cumulative effect of small inconveniences of its injectable therapy. It’s easy to overlook little problems in the development context, when larger problems seem far more critical. To provide a counterbalance, our designers planned a month-long immersive experience for 35 members of the client’s organization to understand the pain points of a weekly injectable drug.

Each participant took home four prototypes with instructions, as well as the profile of a patient whose role he or she had to assume during the experiment. All participants had to store their prototypes in their refrigerator, give themselves mock injections once a week, and document their experiences. Every week, they were presented with challenges of the everyday mishap variety—spilled juice, last-minute trip via airplane, and so forth—for which they had to find a way to cope.

At the end of the month, the clients were surprised by how much they’d learned from the exercise. This yielded ideas for improving dozens of aspects of the patient experience, from product packaging and instructions to customer support. Convincing such a large group to go through such an inconvenience is not always easy, but the experience gave the organization a sense of empathy that motivated everyone to work on smaller issues as well.

As demonstrated by the three cases above, we often face situations in which we need to help large groups of clients forge emotional connections with others in challenging contexts. We are more
than field guides; we are facilitators, hosts, and stage-setters. We tailor our research processes and techniques to the unique circumstances of any given design challenge—and they look quite different from project to project.

Naturally, this means that we need more permission from our clients and ourselves to try things that are new or have yet to be perfected. We know that other design researchers also struggle to gain the space, time, and trust needed to create these potentially profound empathic experiences at scale. We share our positive experiences here to enable our collective practice to push these approaches forward.

What happens to these insights, ideas, and opportunities? Who champions them, sees them through, and spreads them forward? How? This brings us to empathy’s second edge: sustaining it over time.

**SUSTAINING DESIGN EMPATHY**

When a whole company is trying to alter its course to become more human-centered and empathic, it’s not enough for a small team to have a transformative experience in the field. Simply presenting insights to a larger group rarely accomplishes the job, either. All of the stakeholders involved need to be intrinsically motivated if they are going to truly follow through with their commitment to human-centered design and innovation.

Sustaining design empathy is important everywhere, but we know it is absolutely crucial in a research consulting context. In design research, a project can make great progress toward achieving certain milestones, but what happens when the initial goal is reached or that phase of the project comes to an end? To ensure ongoing success, the client organization needs to absorb and own the motivation, point of view, and enthusiasm that drove the

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**Figure 7.** Customer stories, viewed as documentaries on an iPad, bring them alive in a workshop. Photo courtesy of IDEO.
design to its current state. This is often a difficult transition and a design challenge in its own right. The challenges for sustaining design empathy are two-fold:

1. **Empathic artifacts.** We need to rethink deliverables and push ourselves to create enduring “artifacts” that will help the client organization retain its empathy for any given user, project, or subject matter. We can do this by providing easy access to the stories and experiences that promote emotional understanding.

2. **Empathic culture.** We need to help the client change its own organizational behavior to be more empathic, more fearless, more human, more “out of ego,” more willing to embrace complexity, and more able to process and share empathy internally.

**ALTHOUGH IDEO PUTS EMPATHY AND REAL STORIES FIRST, WE INCREASINGLY USE QUANTITATIVE DATA TO PROVIDE CONTEXT FOR OUR INSIGHTS.**

To address these challenges, we in effect turn design empathy back on itself to reflect on our work. We must consider empathy as something we facilitate for others as well as for ourselves. This leads us to rethink research methods, documentation, presentations and reports, replacing or augmenting them with empathy-building experiences that will have an impact on the organization at large. Empathic artifacts can be small or large, ranging from videos and books to spaces and exhibitions or even organizational roles and structures. The right format depends upon the culture of the client organization, the goal of the project, the privacy concerns of participants, and the capabilities of the design team.

An organization’s culture has everything to do with how successful empathic design can be, whether those emotional insights come from within the company or from collaboration with a consultant. Accounting-software maker Intuit has a strong culture of user empathy, which is championed by its founder and chairman, Scott Cook. Cook has his leaders interview customers at high-level meetings to ensure that everyone has direct personal experience with the realities of their users (O’Sullivan, 2012). We design empathic artifacts to the same end: to deliver experiences that build empathy for what people are actually going through in the real world.

**Telling Stories, Documentary-Style**

In an effort to cultivate empathy for customers within a global organization of 30,000 people, IDEO distilled its research findings into “mini documentaries” that everyone could watch. We also developed iPhone, Web, and tablet software apps that further brought the customer insights to life. Soon after launch, employees worldwide were viewing the videos and accompanying data. It’s too early to tell what the project’s long-term impact will be, but it’s already valuable as an experiment in deepening customer-centeredness and empathy.

We’ve found ourselves blurring the boundary between conducting design research and casting for a documentary before. A few years ago, when we were working with the National Campaign to Prevent Teen and Adult Unplanned Pregnancy, we designed Bedsider.org, a public Web site that helps young adults to find a birth-control method that works for them. Among other resources, the site shares first-person accounts of young women making decisions about contraceptives. Our research showed that women could empathize more easily with one another than with, say, an authority figure. A slightly cheeky tone was the most effective. So, we shot videos of them talking about their experiences, as they would to a friend, and designed the site to have that same frank but light-hearted feel.

**Embedding Stories in Data**

Although IDEO puts empathy and real stories first, we increasingly use quantitative data to provide context for our insights. Behavior observed once in
a small sample could be shrugged off as an anomaly or a quirk, or conversely, could capture a team's imagination and be given too much weight.

For example, a young woman who kept track of her multiple responsibilities by using a collection of different smart devices initially appeared to be unique; however, the quantitative side of the study showed that she exemplified an entire segment of early adopters whose mental model for virtual workspace was markedly different from that of a more experienced “male geek” user group.

This hybrid approach merges the best aspects of qualitative and quantitative research: The qualitative research uncovers the real human stories and experiences, and the quantitative research considers the market context and potential impact. We then embed stories into data and cross-validate emotional insights with numbers to arrive at a stronger, human-centered point of view (Seemann, 2012).

**Taking Clients on “Visceral Journeys”**

Businesses that do not start off by having such an empathic environment can find simpler ways to begin to foster empathy. For example, a European telecom asked us to help it develop a customer-centered strategy for its tariffs. As designers started to explore the customer experience, they quickly found themselves buried in information. They struggled to resolve the disconnect between

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**Figure 8.** State Farm’s Next Door is a place that enables the company to simultaneously help and learn about a community of young consumers. Photo courtesy of IDEO.
what the customer wanted and what the operator offered.

As a physical way to relay the tension of the customer experience to telecom personnel, the team designed and built an “experience exhibition” in an IDEO office space. They took the clients on a multi-sensory journey, including “the tunnel of paperwork,” which dramatized the customer experience of trying to deal with the avalanche of baffling documents and contracts. Their understanding became visceral and, inspired by the exercise, the clients went on to design a similar setup within their training facility. They’ve since walked more than 3,000 employees through it to give them empathy for customers.

**Experimenting in the “Living Empathy” Lab**
Exhibitions can be quite effective at creating a forum for new kinds of conversations, but the temporary exhibits typically have short life spans. What if this platform for engagement could be a more permanent—and public—one?

A few years ago, State Farm engaged IDEO to help it understand how to make its offerings more relevant to Millennials, people born roughly between 1982 and 2002. The first round of research revealed that in addition to not relying on banks and insurance companies as much as previous generations, many young people felt intimidated by them and struggled to find trustworthy financial advice.

The design team envisioned a new kind of experience for Millennials that would respect their desire to not be “sold to” and fulfill their need for a place where they could connect, learn, and seek advice. The result: a “living empathy lab” called Next Door in Lincoln Park, a lively Chicago neighborhood, where State Farm provides free, in-person coaching but charges for coffee. For State Farm, it is a valuable experiment that teaches the company how to better deliver on its brand promise of being “a good neighbor” to a whole new generation.

State Farm’s bold move underscores that, in order to propagate design empathy in organizations, we must help companies create ways to have real relationships with their existing customers and users, as well as with potential customers and users. Empathy enables leadership to have a clear vision for these relationships and develop a strategy for influencing how they ultimately play out.

**CONCLUSION: LIVING ON THE EDGE**
Given the increasing complexity of today’s world and its related design challenges, the empathy we engender needs to embrace a broader spectrum of stakeholders and endure beyond the timeframe of a project or traditional deliverables.

In recognition of the opportunities presented by this complexity, IDEO is scaling its human-centered and empathic design processes and engaging with an increasingly diverse mix of individuals, groups, and contexts. When conveying our insights to clients, we strive to craft experiences that enable and sustain transformation on a deep emotional level.

A one-hour slide presentation of research findings does not do justice to this work on the edges. Cultivating a culture of empathy and extending it to far-reaching stakeholders requires more than the usual effort from everyone involved in a project. Yes, it’s hard to scale empathy to large, diverse groups. And, yes, it’s difficult to sustain empathy throughout a corporate culture over time. But we have found the effort truly pays off for individuals and companies alike.
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