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## THE EVOLUTION OF DESIGN THINKING

IT’S NO LONGER JUST FOR  
PRODUCTS. EXECUTIVES ARE  
USING THIS APPROACH  
TO DEVISE STRATEGY  
AND MANAGE  
CHANGE.

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By Jon Kolko

Sept 2015

There’s a shift under way in large organizations, one that puts design much closer to the center of the enterprise. But the shift isn’t about aesthetics. It’s about applying the principles of design to the way people work.

This new approach is in large part a response to the increasing complexity of modern technology and modern business. That complexity takes many forms. Sometimes software is at the center of a product and needs to be integrated with hardware (itself a

complex task) and made intuitive and simple from the user's point of view (another difficult challenge). Sometimes the problem being tackled is itself multi-faceted: Think about how much tougher it is to reinvent a health care delivery system than to design a shoe. And sometimes the business environment is so volatile that a company must experiment with multiple paths in order to survive.

I could list a dozen other types of complexity that businesses grapple with every day. But here's what they all have in common: People need help making sense of them. Specifically, people need their interactions with technologies and other complex systems to be simple, intuitive, and pleasurable.

A set of principles collectively known as *design thinking*—empathy with users, a discipline of prototyping, and tolerance for failure chief among them—is the best tool we have for creating those kinds of interactions and developing a responsive, flexible organizational culture.

### **What Is a Design-Centric Culture?**

If you were around during the late-1990s dot-com craze, you may think of designers as 20-somethings shooting Nerf darts across an office that looks more like a bar. Because design has historically been equated with aesthetics and craft, designers have been celebrated as artistic savants. But a design-centric culture transcends design as a role, imparting a set of principles to all people who help bring ideas to life. Let's consider those principles.

#### **Focus on users' experiences, especially their emotional ones.**

To build empathy with users, a design-centric organization empowers employees to observe behavior and draw conclusions about what people want and need. Those conclusions are tremendously hard to express in quantitative language. Instead, organizations that "get" design use emotional language (words that concern desires, aspirations, engagement, and experience) to describe products and users. Team members discuss the emotional resonance of a value proposition as much as they discuss utility and product requirements.

A traditional value proposition is a promise of utility: If you buy a Lexus, the automaker promises that you will receive safe and comfortable transportation in a well-designed high-performance vehicle. An emotional value proposition is a promise of feeling: If you buy a Lexus, the automaker promises that you will feel pampered, luxurious, and affluent. In design-centric organizations, emotionally charged language isn't denigrated as thin, silly, or biased. Strategic conversations in those companies frequently address how a business decision or a market trajectory will positively influence users' experiences and often acknowledge only implicitly that well-designed offerings contribute to financial success.

The focus on great experiences isn't limited to product designers, marketers, and strategists—it infuses every customer-facing function. Take finance. Typically, its only contact with users is through invoices and payment systems, which are designed for internal business optimization or predetermined “customer requirements.” But those systems are touch points that shape a customer’s impression of the company. In a culture focused on customer experience, financial touch points are designed around users’ needs rather than internal operational efficiencies.

### **Create models to examine complex problems.**

Design thinking, first used to make physical objects, is increasingly being applied to complex, intangible issues, such as how a customer experiences a service. Regardless of the context, design thinkers tend to use physical models, also known as *design artifacts*, to explore, define, and communicate. Those models—primarily diagrams and sketches—supplement and in some cases replace the spreadsheets, specifications, and other documents that have come to define the traditional organizational environment. They add a fluid dimension to the exploration of complexity, allowing for nonlinear thought when tackling nonlinear problems.

For example, the U.S. Department of Veterans Affairs’ Center for Innovation has used a design artifact called a [customer journey map](#) to understand veterans’ emotional highs and lows in their interactions with the VA. “This form of artifact helped us better tell a story to various stakeholders,” says Melissa Chapman, a designer who worked at the Center for Innovation. Even more important, she adds, it “helped us develop a strategic way to think about changing the entire organization and to communicate that emergent strategy.” The customer journey map and other design models are tools for understanding. They present alternative ways of looking at a problem.

### **Use prototypes to explore potential solutions.**

In design-centric organizations, you’ll typically see prototypes of new ideas, new products, and new services scattered throughout offices and meeting rooms. Whereas diagrams such as customer journey maps explore the problem space, prototypes explore the solution space. They may be digital, physical, or diagrammatic, but in all cases they are a way to communicate ideas. The habit of publicly displaying rough prototypes hints at an open-minded culture, one that values exploration and experimentation over rule following. The MIT Media Lab formalizes this in its motto, “Demo or die,” which recognizes that only the act of prototyping can transform an idea into something truly valuable—on their own, ideas are a dime a dozen. Design-centric companies aren’t shy about tinkering with ideas in a public forum and tend to iterate quickly on prototypes—an activity that the innovation expert Michael Schrage refers to as “serious play.” In his book of that title, he writes that innovation is “more social than personal.” He adds, “Prototyping is probably the single most pragmatic behavior the innovative firm can practice.”

## **Tolerate failure.**

A design culture is nurturing. It doesn't encourage failure, but the iterative nature of the design process recognizes that it's rare to get things right the first time. Apple is celebrated for its successes, but a little digging uncovers the Newton tablet, the Pippin gaming system, and the Copland operating system—products that didn't fare so well. (Pippin and Copland were discontinued after only two years.) The company leverages failure as learning, viewing it as part of the cost of innovation.

Greg Petroff, the chief experience officer at GE Software, explains how the iterative process works at GE: “GE is moving away from a model of exhaustive product requirements. Teams learn what to do in the process of doing it, iterating, and pivoting.” Employees in every aspect of the business must realize that they can take social risks—putting forth half-baked ideas, for instance—without losing face or experiencing punitive repercussions.

## **Exhibit thoughtful restraint.**

Many products built on an emotional value proposition are simpler than competitors' offerings. This restraint grows out of deliberate decisions about what the product should do and, just as important, what it should not do. By removing features, a company offers customers a clear, simple experience. The thermostat Nest—inside, a complex piece of technology—provides fewer outward-facing functions than other thermostats, thus delivering an emotional experience that reflects the design culture of the company. As CEO Tony Fadell said in an interview published in *Inc.*, “At the end of the day you have to espouse a feeling—in your advertisements, in your products. And that feeling comes from your gut.”

Square's mobile app Cash lets you do one thing: send money to a friend. “I think I'm just an editor, and I think every CEO is an editor,” wrote Jack Dorsey, Square's CEO. “We have all these inputs, we have all these places that we could go...but we need to present one cohesive story to the world.” In organizations like Square, you'll find product leaders saying no much more than they say yes. Rather than chase the market with follow-on features, they lead the market with a constrained focus.

## **What Types of Companies Are Making This Change?**

As industry giants such as IBM and GE realize that software is a fundamental part of their businesses, they are also recognizing the extraordinary levels of complexity they must manage. Design thinking is an essential tool for simplifying and humanizing. It can't be extra; it needs to be a core competence.

“There's no longer any real distinction between business strategy and the design of the user experience,” said Bridget van Kralingen, the senior vice president of IBM Global Business Services, in a statement to the press. In November 2013 IBM opened a design studio in Austin, Texas—part of the company's \$100 million investment in building a

massive design organization. As Phil Gilbert, the general manager of the effort, explained in a press release, “Quite simply, our goal—on a scale unmatched in the industry—is to modernize enterprise software for today’s user, who demands great design everywhere, at home and at work.” The company intends to hire 1,000 designers.

When I was at the company frog design, GE hired us to help formalize and disseminate language, tools, and success metrics to support its emergent design practice. Dave Cronin, GE’s executive design director for industrial internet applications, describes how the company came to realize that it was not just in the business of making physical products but had become one of the largest software providers in the world. The complexity of this software was overwhelming, so his team turned to design. “Our mandate was to create products, but also to enable nimble innovation,” Cronin says. “That’s a pretty tall order—we were asked to perform design at scale and along the way create cultural change.”

Design thinking is an essential tool for simplifying and humanizing.

IBM and GE are hardly alone. Every established company that has moved from products to services, from hardware to software, or from physical to digital products needs to focus anew on user experience. Every established company that intends to globalize its business must invent processes that can adjust to different cultural contexts. And every established company that chooses to compete on innovation rather than efficiency must be able to define problems artfully and experiment its way to solutions. (For more on the last shift, see [“How Samsung Became a Design Powerhouse”](#) in this issue.)

The pursuit of design isn’t limited to large brand-name corporations; the big strategy-consulting firms are also gearing up for this new world, often by acquiring leading providers of design services. In the past few years, Deloitte acquired Doblin, Accenture acquired Fjord, and McKinsey acquired Lunar. Olof Schybergson, the founder of Fjord, views design thinking’s empathetic stance as fundamental to business success. As he told an interviewer, “Going direct to consumers is a big disruptor....There are new opportunities to gather data and insights about consumer behavior, likes, dislikes....Those who have data and an appetite for innovation will prevail.” These acquisitions suggest that design is becoming table stakes for high-value corporate consulting—an expected part of a portfolio of business services.

### **What Are the Challenges?**

Several years ago, I consulted for a large entertainment company that had tucked design away in a select group of “creatives.” The company was excited about introducing technology into its theme parks and recognized that a successful visitor experience would hinge on good design. And so it became apparent that the entire organization needed to embrace design as a core competence. This shift is never an easy one. Like many organizations with entrenched cultures that have been successful for many years, the company faced several hurdles.

### **Accepting more ambiguity.**

The entertainment company operates globally, so it values repeatable, predictable operational efficiency in support of quarterly profit reporting. Because the introduction of technology into the parks represented a massive capital expenditure, there was pressure for a guarantee of a healthy return. Design, however, doesn't conform easily to estimates. It's difficult if not impossible to understand how much value will be delivered through a better experience or to calculate the return on an investment in creativity.

### **Embracing risk.**

Transformative innovation is inherently risky. It involves inferences and leaps of faith; if something hasn't been done before, there's no way to guarantee its outcome. The philosopher Charles Peirce said that insights come to us "like a flash"—in an epiphany—making them difficult to rationalize or defend. Leaders need to create a culture that allows people to take chances and move forward without a complete, logical understanding of a problem. Our partners at the entertainment company were empowered to hire a design consultancy, and the organization recognized that the undertaking was no sure thing.

### **Resetting expectations.**

As corporate leaders become aware of the power of design, many view design thinking as a solution to all their woes. Designers, enjoying their new level of strategic influence, often reinforce that impression. When I worked with the entertainment company, I was part of that problem, primarily because my livelihood depended on selling design consulting. But design doesn't solve all problems. It helps people and organizations cut through complexity. It's great for innovation. It works extremely well for imagining the future. But it's not the right set of tools for optimizing, streamlining, or otherwise operating a stable business. Additionally, even if expectations are set appropriately, they must be aligned around a realistic timeline—culture changes slowly in large organizations.

An organizational focus on design offers unique opportunities for humanizing technology and for developing emotionally resonant products and services. Adopting this perspective isn't easy. But doing so helps create a workplace where people want to be, one that responds quickly to changing business dynamics and empowers individual contributors. And because design is empathetic, it implicitly drives a more thoughtful, human approach to business.

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Your response (November 2015 issue) side-steps the points I raised. You hint that the design process is separate from engineering and business practice, yet it is at the core of both (and science, too). Top engineers, creative business executives and many entrepreneurs would be surprised to hear their work does not encompass “lateral leaps in thought, dreaming, working through iterations and connecting ideas that haven’t previously been connected”. Similarly many industrial designers would not survive if they failed to deliver efficiency and predictably competent outputs. When design professionals harness the expertise of key stakeholders and work effectively together through iterations and validations to generate approved solutions, that is a good demonstration of optimization, given the time and resources available. By contrast, it is not productive to characterize designerly approaches to solving problems by seeking to fit reality around fashionable ideas.

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