Designing for Business, Consulting for Innovation

Tom Kelley, General Manager, IDEO Product Design & Development
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THE CONSULTANT’S PERSPECTIVE

DESIGNING FOR BUSINESS,
Consulting for Innovation

by Tom Kelley

If a key to competitive success is innovation, Tom Kelley posits five reasons why designers are among the best prepared to nurture this process. They can decipher strategies as they move from specific projects to more-general visions of innovation. They can link their wisdom on the content of innovation to broader business goals. They can be keen observers. With their special ability to visualize, they can be extraordinarily persuasive. And they have the luxury of being serendipitous. In this context, we may be on the threshold of a new era in design.

When Thomas Walton, editor of the Design Management Journal, asked me to write a first-person piece for an issue on “The New Design Managers,” I was both flattered and slightly surprised. I must confess that many people at IDEO Product Development, where I work, would probably not call me a “design manager.” I’ve been a management consultant, but never a practicing designer, engineer, or architect. In the end, however, I agreed, not only because Thomas was so persuasive but also because I believe that a new and broader definition of design is emerging that is linked more closely with the business world in its pursuit of innovation. This broader “new design” category is beginning to overlap with management consulting, where my hands-on experience may be more relevant. I’ve done a lot of thinking about how the business/design interface has evolved in recent history, and I think design services are entering a golden era of greater influence on the thinking and practices of the business world.

A History of Priorities: Watching Innovation Rise to the Top

A dozen years ago, I joined a branch of what is now IDEO Product Development when it was a 23-person engineering-centric design firm over a retail space in Palo Alto, California. We were—not coincidentally—located right down the street from Stanford University, which at that time was the source of most of our design methodologies and what seemed like virtually all of our professional staff.

Shortly before I joined IDEO, the firm had commissioned an independent research study to ask our clients from the business world a question that was—and still is—very important to us: Why does...
a successful organization look outside for product design and development?

With the exception of a few start-up companies, nearly all our clients had in-house design and development capabilities, but the survey unearthed four key reasons our clients had decided to go outside:

1) Raw capacity: just to supplement over-stretched in-house resources
2) Speed: the hope that a very focused outside group could win the race to market, either because they had a well-honed process or because they simply had less organizational distractions than the in-house group
3) Some specific expertise in a material, technology, or market that was relatively new or unfamiliar to the in-house team
4) Innovation: the idea that a new perspective on their issues might help to find a breakthrough

In the years since that study was completed, IDEO has grown by an order of magnitude, and I personally have participated in more than 1,500 project briefing meetings with new or prospective clients. As the cognitive psychologists at IDEO would tell me, it’s almost impossible to observe something 1,500 times and not discern at least a few patterns or trends, and this case is no exception. One trend is that innovation, which was fourth on the clients’ list of reasons a dozen years ago, has risen to the top. Not only is innovation now mentioned by the majority of senior executives we interview, but it has become a hot topic—arguably one of the hottest topics—in the business community at large. Search keyword “innovation” on Amazon.com, and you’ll find more than 1,800 titles! The majority of these relate to a form of business innovation that is directly relevant to the design community, such as:

- Tom Peters’s recent lively and inspiring *The Circle of Innovation: You Can’t Shrink Your Way to Greatness*
- Everett M. Rogers’s seminal work, *Diffusion of Innovation* (now in its fourth edition), which takes a broad historical perspective on how great ideas eventually become adopted through wearing down apathy and resistance
- Robinson and Stern’s stories of billion-dollar ideas that came through grassroots serendipity in *Corporate Creativity: How Innovation and Improvement Actually Happen*

My 30-second Web search generated a reading list of relevant new material on innovation that could fill my airplane time for several years. But of course that simple word search on “innovation” vastly understates the attention to the subject, overlooking major works that do not use the actual word in their title. For example, Warren Bennis’s *Organizing Genius: The Secrets of Creative Collaborations* is a book so good—and so relevant—that we have bought dozens of copies for our clients. But it’s not one of the Amazon 1,800.

Further evidence of the trend toward innovation comes from Harvard Business School professor Michael Porter, whose influential business text, *Competitive Strategy* laid out the three ways companies could successfully compete in the 1980s (cost leadership, differentiation, and focus). More recently, Porter seemed to distill those business goals down to that single word, innovation. In the *Harvard Business Review*, Porter argued that while every successful company will employ its own particular strategy, the underlying mode of operation—the character and trajectory of all successful companies—is fundamentally the same. Companies achieve competitive advantage through acts of innovation.¹

**Hint: Management Consulting Is not the (Whole) Answer**

If innovation is now a key success factor in a competitive business environment, who can help the process along? If you are a senior executive in a corporation and you believe that innovation is currently one of the hottest topics in the business

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world—and will be one of the most powerful business tools of the next decade—where can you turn? For the past 50 years or so, whenever a major new management trend has emerged, CEOs and their vice presidents have turned to management consultants for help. And management consultants, even as we speak, are hard at work on their notebook computers, clicking through drafts of their PowerPoint presentations on business innovation. They will certainly enter the innovation arena—and, in fact, they already have. A principal from one of the largest consulting groups in America confided in me recently that his firm had a “fledgling innovation practice” of about $100 million in billings so far, but they believe it has “huge upside potential” in the future.

If a single management consulting firm’s “fledgling” practice is larger than any design firm in America, you certainly can’t count them out completely. On the other hand, five years in management consulting have given me a reasonable perspective on their strengths and weaknesses compared with design firms. Reengineering, for example, was a perfect management consulting topic, as was total quality management. Both types of work allow management consultants to apply their often supremely strong analytical skills and enlist an army of MBAs to diligently collect all the necessary data and run the numbers or piece together the structural/procedural recommendations.

Designers Are Well Positioned to Help

For companies seeking to unlock their capacity for innovation, I believe the difference between management consulting and design-led approaches is the difference between cleverly analyzing the lock and actually possessing the key. What will be a stretch for traditional analytical approaches will come more naturally for creative, user-centered design methodologies.

The last time design held the key was in the late 1940s, during the period in which Henry Dreyfuss was creating durable icons for AT&T and Raymond Loewy was on the cover of Time magazine. Design content at the time was a powerful form of styling that contributed to marketing, merchandising, and branding.

The power of such design has not gone away (witness the recent home-run successes of the endearing Apple iMac and the playful VW Beetle), but it is no longer enough. In the same way, the quality-management programs that turned around many American businesses have not gone away so much as they have become a part of the assumed landscape, a sedimentary layer upon which nearly all successful large-scale manufacturing is based.

Building on the accumulated knowledge and experience of design and product development, can designers help with the larger topic of innovation? There are five reasons I believe that designers can help, perhaps more than any other group.

1) Designers Employ an Inductive Approach to Innovation.

One key difference between a management consultant’s and a designer’s approach to the topic of innovation is illustrated in figure 1. Most of the well-known management consulting firms are true generalists (hence the expression general management consulting), who through their MBA training and industry experience have developed expertise in things like “how structure affects strategy” or “how systems can support organizational change.” Faced with a rising tide of interest in innovation, management consultants therefore go from the general to the specific, taking their knowledge of systems, structure, or strategy and focusing it on the topic of innovation. It is not quite a matter of substituting innovation for reengineering or total quality management, but the process-oriented methodology of management consulting would be recognizably similar across a variety of topics.

Designers, however, because of their hands-on experience in product innovation, have the opportunity to go from the specific to the general. Through wide and extensive experience in the trenches of product development programs, design managers can become mindful of the “meta” lessons applicable to innovation. At IDEO, for example, we have been involved in more than 3,000 product development programs, and even in the most narrowly defined projects, we have accumulated learning on what works (and what doesn’t). In an increasing number of projects, however, our design brief includes an open-ended opportunity to help redefine the product or service category, answering diverse and challenging questions, such as:

• Why don’t young kids go fishing as often as they used to?
• What will new consumers expect from electric vehicles?
• How can we make a life-saving technology understandable and foolproof in emergency situations?
• How will people want to use digital radio, and how should the technology be applied to consumer products?
• How can we strengthen our innovation process
and create products that meet the needs our customers haven’t even told us about yet?

- What’s wrong with supermarket shopping carts, and how would you change them?

The fact that leading US and international corporations are turning to design firms like IDEO for broad-based innovation programs—and finding success—suggests a growing recognition of design as an alternative source of strategic assistance.

2) DESIGNERS ALREADY KNOW THE CONTENT OF INNOVATION; THEY NEED ONLY LEARN THE LANGUAGE.

As the design community’s expertise grows from narrow, object-centered design efforts to more broad-brush, design-the-experience programs answering questions like the ones above, it becomes a small step to directly address elements of strategic innovation. In fact, over the last few years at IDEO, we have begun to reorient our projects around the larger business needs of our clients, such as:

- Strengthening brand identities
- Fending off low-cost competitors
- Leveraging new technologies
- Increasing success in international markets
- Nurturing a culture of innovation

Further evidence of designers learning the language of business (and vice versa) can be found in the increasing number of product development courses in MBA programs from Harvard to Berkeley, often with guest lectures or active participation from design practitioners. One way I personally have witnessed the blurring of lines between the business and design worlds is the dramatic increase in unsolicited MBA resumes that cross my desk: from zero in my first few years at IDEO to nearly a hundred per year lately.

3) DESIGNERS HAVE THE POWER TO VISUALIZE AND PERSUADE BY MAKING THE FUTURE COME ALIVE.

In my experience, management consulting projects have ranged from the sublime to the truly ridiculous—from an Asian airline for which we quickly found a way to save $30 million per year (without laying off employees) to a US-based energy company whose management team probably started shredding our 600-page report before we even left the building. What all those projects had in common, however, was that they relied on a bound report and a deck of bullet-point presentation slides to illustrate findings, propose recommendations, and persuade decision makers.

If a picture is worth a thousand words, then how much more valuable is an appearance model, a working prototype, or a room full of them, supported with videos or interactive simulations? If you want to influence the people who control the budgets in successful corporations—often the defenders of the status quo—would you rather come armed with a stack of charts and graphs or with a case full of models and prototypes that breathe life into your ideas? I believe that models can be more persuasive, elicit a stronger and a more articulate response, and be a lightning rod for the kind of power in an organization that allows design-led efforts to have more impact.

4) DESIGNERS ARE EXPERT IN USING THE POWER OF OBSERVATION.

If visualization has the power to communicate and persuade, then observation—another well-developed skill in most top-flight design firms—has the power to inspire and inform. The great thing about doing first-hand observation is that there is no filter to distort the information, no loss of learning opportunities as data gets attenuated through steps in the distribution channel or levels in the organizational hierarchy. As practiced at IDEO, at least, actions are observed in a natural usage environment (not an NYPD-style observation room with a big mirror on one wall). The human-factors specialists conducting the observations (usually with designers and/or clients present) have no personal investment in either the status quo or in any specific direction for the future, allowing them a good range of objectivity.

Dorothy Leonard, in her Harvard Business Review article “Sparking Innovation Through Empathic Design,” based in part on her research at IDEO, extols the power of user observation. She also points out how rarely it is practiced—except in design firms. With the influential Harvard Business Review suggesting the widespread use of human-factors observations as a source of innovation, I believe that leading corporations will be willing to give it a try. In my experience, the best source of expertise for innovation-oriented observations is in the design community.

5) DESIGN ORGANIZATIONS LEAVE MORE ROOM FOR SERENDIPITY.

In their book Corporate Creativity, Robinson and Stern contend that one of the secrets of innovation is to make allowances for serendipity—the
spontaneous spark that occurs when a “happy accident” of learning happens to someone knowledgeable enough to make sense of it. The cultural and physical environments of design organizations lend themselves to exactly the kind of accidental learning that Robinson and Stern describe.

This organizational serendipity stems not only from generating large numbers of ideas through individual thought and group brainstorming but also from continuous and proactive sharing of knowledge or insights. Stanford professor Robert Sutton, who conducted a 14-month anthropological study of IDEO, observed that the “show-and-tell” sessions incorporated into firm-wide Monday morning meetings serve as “status auctions” for members of the firm. The various electronic gadgets, amazing materials, and even weird foods that show up during show-and-tell presentations not only contribute to the firm’s knowledge of product innovation, but also add to the presenter’s own informal status among his or her peers. To the extent that designers build organizations in which status and respect are earned by bringing in the coolest ideas and technologies, the culture creates more opportunity for innovation than in traditional corporate work environments.

**Conclusion: Get Ready for the Decade of Design and Innovation**

Our recent experience suggests that the design industry—broadly defined—is entering a period of growth and influence, a time when the planets align in a way that matches the interests and capabilities of designers with the business community’s search for strategic innovation. The successful blending of design and business interests will require designers to broaden their self-definition and to couch their insights in the language of business rather than solely in terms of aesthetics, human factors, and clever engineering. I believe that interest in design as a stand-alone discipline will continue to grow, but that the opportunities for innovation through design will increase by an order of magnitude in the decade ahead.

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