Creativity That Goes Deep

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The topic of design is as hot as a pistol these days. Everywhere you look, you see cover stories and conferences. If it's design-related, people are talking about it. Firms everywhere want to revolutionize themselves by turning design-oriented. They look wistfully at the stupendous growth that the iconic iPod has provided previously stagnating Apple Computer (AAPL), and believe that design can help them create their own version of the iPod and restart their growth engines.

Unfortunately, it's not as simple as hiring a chief design officer and declaring design as your top corporate priority. To generate meaningful benefits from design, corporations will have to change in fundamental ways before they can operate like the design consultancies who advise them on how to sharpen their design focus. To get the benefit of design, companies have to embed design into -- not append it onto-- their business.

Design organizations vary significantly from traditional firms along five key dimensions: flow of work life, style of work, mode of thinking, source of status, and dominant attitude. Left unchecked, the stark contrast between traditional firms and design consultancies will impede any attempt by traditional firms to become more design-oriented.

Flow of Work Life

Traditional firms organize the flow of work life around permanent jobs and ongoing tasks. "Vice-president of marketing" is a permanent position with a set of tasks considered ongoing, without finite duration: managing the annual advertising plan, setting marketing budgets, coordinating with sales, reporting quarterly on share trends to the CEO, etc. The marketing vice-president is rewarded primarily for fulfilling these ongoing responsibilities consistently and adroitly. By and large, colleagues mirror this flow of work life.

In design consultancies, the work flow differs radically. The world consists primarily of projects with defined terms. Designers are accustomed to being assigned to a given project with a specific deadline. When the deadline comes and the project is completed, it

disappears from sight, and the designer moves on to other projects, each of which also has a fixed duration. Designers get used to mixing and matching with other designers on ad-hoc teams created with a specific purpose in mind. They see their lives as an accumulation of projects, rather than an accumulation of hierarchical job titles -- i.e., manager, director, AVP, VP, SVP, EVP, and CEO.

NOTHING PERMANENT. Dropped into a traditional setting with a permanent job defined by the performance of an ongoing set of tasks, a designer will feel completely alienated from the "normal" way of operating, because design thinking and work require a different flow of work life.

Interestingly, one could argue that traditional firms actually fool themselves in attempting to portray jobs and tasks as "ongoing" and "permanent" when, in fact, most of work life is naturally a set of projects, each of which has its ebbs and flows. Many managers complain that, because of all the "fire-fighting" they have to do on things that come up, they can't seem to get their "real job" done. I would argue that they have a skewed sense of reality: The fire-fighting is probably more real than the so-called real job.

Style of Work

Traditional firms have a style of work that involves ongoing, permanent tasks. Roles tend to be carefully, if not rigidly, defined with clear responsibilities for the individual laid out and economic incentives linked tightly to those individual responsibilities. People are typically much more adept at describing "my responsibilities" than they are at describing "our responsibilities."

They feel inclined to work away at these responsibilities, refining and honing outputs before sharing a complete, final product with others. For example, the SVP of marketing will work away on the annual marketing plan, refining and adjusting it until it is "the perfect plan" and only then take it to the CEO in the hopes of the boss saying: "Perfect."

GEHRY'S BLUEPRINT. In a design shop, the style of work is much more collaborative. Even though some hierarchy within teams likely exists, projects are typically assigned to teams rather than to individuals. A design team is mandated to come up with a design solution together -- not individually. And the team is expected to interact throughout the process with the clients by bringing them into the design collaboration.

Because of this collaboration with clients, the work style also tends to be iterative -- the opposite of waiting until something is "right." This involves prototyping, honing, and refining through multiple iterations with the client.

Architect Frank Gehry is famous for this iterative style. The first design that goes public typically elicits a firestorm of protests for its inadequacies on a number of dimensions, making clients, users, and observers extremely nervous because they generally work in traditional organizations in which nothing sees the light of day until it is "right."

JUDGED UNFAIRLY. They can't imagine that Gehry has only just begun, that even though he is the brilliant expert, he wants to get valuable feedback for the next iteration, which won't be final either, by the way. Indeed, "final" only emerges many iterations into the future.

When traditional firms hire designers, their managers often find them disappointing because, like Gehry, they produce prototypes for feedback instead of final products. Unfortunately for the designers, these firm managers think they are seeing a final product and -- judged by that standard -- the product is deemed patently substandard and the designer incompetent.

Mode of Thinking

Traditional firms utilize and reward the use of two kinds of logic. The first, inductive, entails proving through observation that something actually works. The second, deductive, involves proving -- through reasoning from principles -- that something must be.

A retailer may study the cost structure of all of its outlets, for example, to determine which has the best cost position in order to set, inductively, a cost target for the whole chain. Or a consumer packaged-goods firm can use its engrained theory -- "build market share and profits will follow" -- to deduce the appropriate action in a given situation.

Any other form of reasoning or arguing outside these two is discouraged and, at the extreme, exterminated. The challenge is always, "Can you prove that?" And to prove something in a reliable fashion means using rigorous inductive or deductive logic.

Designers also use and value inductive and deductive reasoning. Designers induce patterns

through the close study of users and deduce answers through the application of design theories. However, designers value highly a third type of logic: abductive reasoning. Abductive reasoning, as described by Darden professor Jeanne Liedtka, embraces the logic of what might be. Designers may not be able to prove that something "is" or "must be," but they nevertheless reason that it "may be." This style of thinking is critical to the creative process.

REVOLUTIONARY CHAIR. Design consultancies value and encourage abductive reasoning alongside deductive and inductive reasoning. Bill Stumpf, head of a Minneapolis-based design shop, and Don Chadwick, head of a design consultancy in Santa Monica, Calif., designed the award-winning Aeron chair for Herman Miller.

Stumpf and Chadwick had lots of detailed consumer research from which to apply inductive reasoning -- and robust sets of design principles to consider deductively. But their reasoning processes went well beyond the inductive and deductive: They imagined what a chair of the future could look like and how that chair could change the way users would think about office chairs forever.

Could they prove any of it in advance? No. In fact, when users first saw the chair, they gave it a decidedly chilly reception -- but only because it looked like no other chair they had ever seen.

WINNING SENSIBILITY. In short order, users warmed to the Aeron chair because Stumpf and Chadwick had indeed created a product that no consumer could have described -- but that met their unarticulated needs and sought to trump anything on the planet. It turned into the best-selling office chair of all time and a must-have for even the fanciest boardrooms, despite coming with a price tag double the prevailing level of a high-end ergonomic office chair. And it won, among other accolades, an award for the best design of its entire decade.

None of this would have happened without the design-shop sensibilities that fostered Stumpf and Chadwick's abductive reasoning.

Source of Status

The primary source of status in traditional firms is the management of big budgets and

large staffs. When executives have the occasion to boast about themselves, they tend to refer to the number of people for whom they have direct responsibility and/or the bottom line that they deliver each year -- for example, "I run a 5,000 person organization, and our bottom line this year will be $700 million." And of course, bigger is always better!

In a design consultancy, the source of status and pride derives from solving "wicked problems" -- problems with no definitive formulation or solution and that have definitions open to multiple interpretations. This reality is confirmed by the appearance of the office of any star designer: Desks, credenzas, and shelves are covered with the "best" designs -- the ones that solve the most difficult design challenges in the most elegant fashion.

Designers become known for their great solutions, whether the Apple mouse, the Bilbao Guggenheim, or the Nike swoosh. These designers enjoy the highest status inside their firms and across their industries. As a consequence, everyone in the design field seeks to earn status through tackling and solving wicked problems, not administering the biggest budgets or the highest number of people.

Dominant Attitude

The dominant attitude of traditional firms is to see constraints as the enemy and budgets as the drivers of decisions. The common argument is, "We can only do what we have budget to do." If only budget constraints could be relieved, these managers seem to imply, so much more would be possible.

As a result, budget constraints are the reason why a product's packaging is cheap-looking, or a product is late to market, or its range is too narrow. The budget -- arch enemy of the traditional firm manager -- simply makes it impossible to do any better.

LOVE THOSE CONSTRAINTS. By contrast, design shops' dominant mind-set is: "There's nothing that can't be done." If something can't be done yet, it is only because the thinking hasn't yet been creative and inspired enough. For Buckminster Fuller, the problem of buildings getting proportionally heavier, weaker, and more expensive as they got larger in scale did not qualify as intractable. It remained intractable only until he created the design of the geodesic dome, which gets proportionally lighter, stronger, and less expensive as it grows larger in scale.

For designers, constraints never constitute the enemy. On the contrary, they serve to increase the challenge and excitement level of the task at hand. In fact, given the source of status in these organizations, constraints actually increase the level of a problem's "wickedness," making its potential solution that much more rewarding. Hence designers would rarely say: "That simply can't be done" or "We don't have the budget for that." Rather, they'd proclaim: "Bring it on!"

The Journey from Appending to Embedding

It is both unrealistic and unproductive to think that traditional companies will ever transform their organizations entirely into those of design consultancies However, given today's design-centric environment, traditional firms can -- and should -- make subtle but important changes in their values to deeply embed and exploit design, rather than append it as nothing more than the latest management fad.

The linchpin of the required change lies in the wicked problem. A traditional firm's values result in assuming away wicked problems as the product of immutable constraints with which the firm must live: Managers avoid working on wicked problems, because status comes from elsewhere, and concentrating on ongoing tasks crowds out working on, and thinking about, wicked problems. Even if a traditional firm takes on a wicked problem, the lack of appreciation of both abductive reasoning and iterative/collaborate work makes it less likely that it will be productively tackled.

REWARDING WITH WICKEDNESS. If instead, traditional firms recognize that the wicked problems that present themselves represent their biggest opportunities for value creation, they will see that tackling them requires a project-based approach and that the important role of projects in company life must not be protected from the tyranny of ongoing tasks.

They will be more inclined to assign their best and brightest to tackling wicked projects, which will signal that solving wicked problems is a high-status activity. And by recognizing these issues explicitly as wicked problems, the corporation will in greater likelihood recognize that abductive logic as well as iterative/collaborative process is needed.

Companies that truly want to embed design into their fundamental operations need to wade into wicked problems. "Bring it on" needs to replace "nothing can be done" as the

response to these problems. Wading into wicked problems using the approaches described here will provide the catalyst for introducing key design characteristics into an established company.

And as many of today's most successful corporations have shown, infusing an organization with design principles can pay big dividends in value creation.