

ROGER MARTIN Just getting the formula right won't help companies much in the 21st century. They'll need to go beyond the McDonald's approach and start thinking like designers

AS THE 20th century drew to a close, an interesting phenomenon occurred in business: some of the most successful organisations on the planet stopped performing like the champions they once were, signalling that a significant element of competitive success was changing. To a great extent, companies like Ford Motor Company, McDonald's and AT&T had succeeded on the basis of taking an insight – a heuristic – turning it into a precise formula – an algorithm – and growing it to huge scale, with few fundamental modifications along the way.

The success of this approach came to a grinding halt as organisations began to sense an increased demand for speed in product development, design cycles, inventory turns and competitive response. While value creation in the 20th century was largely defined by the conversion of heuristics to algorithms, I believe that in the 21st century it will be defined more by the conversion of mysteries to heuristics – and that we are on the cusp of a design revolution in business.

Let's take a few steps back to examine "the march of understanding". Over the course of time, phenomena enter our collective consciousness as mysteries. The mystery of gravity once confounded our forefathers, and in art, there was a long battle to understand how to represent on a two-dimensional canvas what we see in three dimensions.

At some point, enough thought goes into a mystery to produce a first-level understanding of it: heuristics are developed, sets of guidelines for solving the mystery. Why do things fall down? We develop the notion of a force called "gravity" that pulls things down. In art, we develop the concept of "perspective"

to guide efforts to create renderings that appear to have three dimensions. Heuristics don't guarantee success, they simply increase the probability of a successful outcome.

In due course, increased understanding of a particular problem can produce an algorithm – a logical formula that, if correctly applied, ensures the problem's solution. Broadly speaking, value creation in the 20th century was about taking heuristics, reducing them to algorithms and driving them to huge scale. For example, in 1955, the McDonald brothers took a mystery – "what and how do Americans want to eat?" – and they created a heuristic: the quick-service restaurant. Ray Kroc, who took over the nascent chain, saw that he could drive this to an algorithm: he figured out exactly how to cook a hamburger – down to the second – and exactly how to set up restaurants, manage and franchise them. By creating algorithms out of heuristics, Kroc was able to drive McDonald's to huge size and scope.

When other companies developed algorithms – Anheuser Busch for making and selling beer, Frito Lay for making and distributing snack foods – their success, as well as that

of Dell and Wal-Mart, depended not so much on superior products as on a superior process.

In the modern era, a fourth step emerged in the march of understanding: some algorithms could be coded into software. In some cases, by reducing an algorithm to a series of zeros and ones – binary code – a computer could produce the desired result. And while this step enabled undeniable increases in efficiency, with it came the end of judgement, because patterns of zeros and ones have no input or artistry.

In the future, will we witness more relentless "algorithmisation"? I don't think so. In fact, I see the beginnings of a fundamental backlash against the "codification" of the world around us.

There are three major implications of this shift for business. The first is that design and business skills are converging. Business people have to become more like designers – more masters of heuristics than managers of algorithms. The skill of design is the ability to reach into the mystery of some seemingly intractable problem and apply the creativity and innovation necessary to convert it into a heuristic. Highly skilled designers head up many of the world's leading organisations – they just don't realise they are designers, because they weren't formally trained as such.

The second implication is that traditional firms have to start acting more like design firms on a number of dimensions. Whereas traditional firms organise around ongoing tasks and permanent assignments, in design shops work flows around projects with defined terms and constant dialogue with clients. Status in traditional firms comes from managing big budgets and large staffs, but in design shops it derives from a track record of solving tough mysteries. The style of thinking in traditional firms is largely inductive (proving that something actually operates) and deductive (proving that something must be). Design shops add abductive reasoning to the scenario: suggesting that something may be, and exploring the possibilities. Traditional firms see constraints as the enemy, but for design firms nothing is impossible and constraints only increase the excitement level.

The third implication is that we must change our thinking. The trends discussed here have generated interest in design by the business community, but it tends to be focused on the "business of design" – trying to figure out what designers do, how they do it, and how to manage them. This misses the point. The focus should be placed on "the design of business": we need to focus on designing our businesses to provide elegant products and services in the most graceful manner.

Business people don't need to understand designers better, they need to become designers. The first step is to help people understand this new business agenda, to increase the likelihood that their organisations will thrive. ✦

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