

設計 商業

The Design of Business

We are on the cusp of a design revolution in business, says DEAN ROGER MARTIN of the University of Toronto's Rotman School of Management. Competing is no longer about creating dominance in scale-intensive industries, it's about producing elegant, refined products and services in imagination-intensive industries. As a result, he argues, business people don't just need to understand designers better – they need to become designers.

Suitcase House - project by Edge Design Institute Ltd.

Creating Value through Design

As we leave behind one economic age and enter another, many of our philosophical assumptions about what constituted competitive success grew out of a different world. Value creation in the 20th century was largely defined by the conversion of heuristics to algorithms. It was about taking a fundamental understanding of a 'mystery' – a heuristic – and driving it to a formula, an algorithm – so that it could be driven to huge scale and scope. As a result, many 20th century organizations succeeded by instituting fairly linear improvements, such as reengineering, supply chain management, enhanced customer responsiveness, and cost controls. These ideas were consistent with the traditional Taylorist view of the organization as a centrally-driven entity that creates wealth by getting better and better at doing the same thing.

Competition is no longer in global scale-intensive industries; rather, it's in non-traditional, imagination-intensive industries. Today's firms are sensing an increased demand for speed in product development, design cycles, inventory turns, and competitive response, and there are major implications for the individuals within those organizations.

I would argue that in the 21st century, value creation will be defined more by the conversion of mysteries to heuristics – and that as a result, we are on the cusp of a design revolution in business.

The progression from mysteries to binary code

Over the course of time, phenomena enter our collective consciousness as mysteries – things that we observe, but don't really understand. For instance, the mystery of gravity once confounded our forefathers: when they looked around, they saw that many things, like rocks, seemed to fall to the ground almost immediately; but others didn't – like birds, and some seemed to take forever, like leaves. In art, there was the long battle to understand how to represent on a two-dimensional page what we saw in front of us in three dimensions. Music continues to be a mystery that confounds: what patterns of notes and sounds are enjoyable and make listeners feel contented?

We start out with these mysteries, and at some point, we put enough thought into them to produce a first-level understanding of the question at hand. We develop heuristics – ways of understanding the general principles of heretofore mysteries. Heuristics are rules of thumb or sets of guidelines for solving a mystery by organized exploration of the possibilities.

So why do things fall down? We develop the notion of a universal force called 'gravity' that tends to pull things down. In art, we develop a notion called 'perspective' that guides our efforts to create renderings that appear to the eye to have three-dimensions rather than two. What kind of music do people enjoy listening to? We learn about chords, and then create song types like ballads, or folk songs. By following a set of guidelines, one is likely to create something that people enjoy listening to.

Heuristics don't guarantee success – they simply increase the probability of getting to a successful outcome. They represent an incomplete understanding of a heretofore mystery.

In any given field, some people barely understand heuristics, while others master them. The difference between them is the difference between one-hit-wonder Don McLean, author of "Ameri-

What makes a product or service different?

For Freeman Lau, Chairman, Board of Directors of Hong Kong Design Centre, it is the experience that is created by a product, or service. This is the essence that all businesses are striving to achieve through design and branding.

But product design requires far more than purely good design. "People think that once you design something, then sales of your product or service will start to take off," he says. "In addition to good design, you also need very strong support, such as manufacturing, distribution, marketing, and so on, which is why brand and design management are becoming very important components in successful companies."

A good example of this is illustrated through the redesign of Watsons Water. Mr Lau, who is the brains behind the product's new look, said the company wanted to rejuvenate the whole brand, which essentially needed to begin with redesigning the bottle. The old bottle design, had a very hard image which looked like it had been designed by an engineer.

"Basically, the shape was not very appealing, so I wanted to create a soft, feminine-looking curve shape, and include the cap in the design which also functions as a cup. The result is that the product now looks much younger," he explained.

After redesigning the bottle, ideas for graphics on the bottle label were discussed, but as people see a bottle when buying water, not the label, the design of the label was not that important. "It's like when you buy clothes at Esprit: you don't care about the design of the letters of the shop, you care about the design of the clothes, the stores, and the whole shopping experience," he says.

As part of the redesign, umbrellas, posters and premium gift items also played an important role in creating a younger image for the product. This is one aspect that is often overlooked when companies try to develop new designs and brand their products, he says. Even if businesses have the capacity to manufacture products, and are willing to put in resources to market them, building up a brand still requires long-term commitment.

"Basically, as a designer, what we can offer is product design, branding and product packaging and promotion. What we can do about a product or service always goes back to the core essence of design: the value that we can create for products or services in the market," he said.

Freeman Lau
劉小康



can Pie", and Bruce Springsteen, author of scores of hit songs. For McLean, the mystery remained just that: he came up with a single inspiration that created a random event – one of the biggest pop song hits of all time. Yet he failed to produce another hit of any consequence in his entire career. In contrast, Springsteen developed a heuristic – a way of understanding the world and the people in it – that enables him to write songs that have great meaning

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to people and are immensely popular. His mastery of heuristics has allowed him to generate a steady stream of hit albums over a 30-year period.

In the modern era, a fourth important step has been added to the sequence of mystery to heuristic to algorithm. Eventually, some algorithms now get coded into software. This means reducing the algorithm – the strict set of rules – into a series of 0's and 1's – binary code – that enables a computer to produce a

Putting the Spice Back into Hong Kong

“With so many goods in the marketplace jostling for their attention, buyers are increasingly willing to pay a premium for products that have perceived value and good design,” says Raymond Chan, Chairman of IDT International. “If more local businesses start looking at this and move in this direction, then I think Hong Kong products have a very bright future.”

IDT, which is better known for its Oregon Scientific consumer electronics, rose out of humble origins in 1977 as a producer of LCD alarm clocks into a global household name. Design has played a key role in its success, together with innovation, quality and a long-term commitment to develop a global brand.

Primarily designed in Milan, but also other European cities and innovations developed in Oregon, Oregon Scientific is truly a global brand. While developing a strong global brand has taken between 10-15 years, Mr Chan points out that creative design is something that businesses can start to feel the benefits almost immediately.

“Design and branding are two different things. If we talk about design, this is something that all businesses can benefit from. But design is also something that is ingrained into the culture of society,” he says. “If you look at Milan, or Paris, or other style capitals of the world, all of their citizens have an appreciation of design. This understanding has taken years and years to build up, but there is no reason why Hong Kong cannot do the same and channel these design energies into our industries.”

The number of design students graduating in Hong Kong is rising annually, but the sad reality is that many of them cannot find suitable jobs. Part of the problem is that many businesses are stuck in the original equipment manufacturing (OEM) mentality, so are not used to investing in design and view designers as “extra costs” rather than an investment or means to boost sales. The result is that the whole design environment required to help local designers grow just isn't here.

“We have to develop young designer competitions, organise more awards, and motivate them so that they will develop their talents. We also must convert the mindset that local designers are no good, or as a Chinese saying goes: ‘local ginger is not spicy enough’,” he says.

Mr Chan admits that changing this mentality will take years, but it is critical that Hong Kong commits itself to rising to this challenge generation after generation.

result. For example, with gravity, the fact that we had an algorithm for how things fall meant that we could program aircraft with autopilot, enabling a plane to ‘fall’ from the sky in the organized fashion that we want it to, landing in exactly the right spot. At the coding level, there is no longer any judgment involved: the plane lands on the basis of computer instructions, because our understanding of gravity has moved from a mystery to a heuristic to an algorithm to binary code.



Implications for the Design of Business

The progression of the ‘march of understanding’ described here has important practical implications for today’s business people. Broadly speaking, value creation in the 20th century was about taking a fundamental understanding of a mystery – a heuristic – and reducing it to a formula, an algorithm – so that it could be driven to huge scale and scope.

Early in the century, Ford developed the algorithm for assembling cars – the assembly line – and with it grew to immense size. In 1955, the McDonald brothers took a mystery – ‘how and what do Americans want to eat?’ And they created a format for answering that – a heuristic: the quick-service restaurant. What made McDonalds different is that Ray Kroc came along and saw that he could drive the brothers’ heuristic to an algorithm. He bought the store and figured out exactly how to cook a hamburger, exactly how to hire people, exactly how to set up stores, exactly how to manage stores, and exactly how to franchise. Every hamburger came out of a stamping machine weighing exactly 1.6 ounces, its thickness measured to the thousandth of an inch, and the cooking process stopped automatically after 38 seconds. By creating an algorithm out of a heuristic, Kroc was able to drive McDonalds to huge size and scope, and to its place today as a global icon.

Late in the 20th century, Electronic Data Services (EDS) developed algorithms for routinizing systems integration and training COBOL programmers, and with it grew to previously unimagined size in the systems integration business. In between, Procter & Gamble created the algorithm for brand managing, Anheuser Busch for making and selling beer, Frito Lay for making and distributing snack chips, on so on. For these companies,

as well as Dell and Wal-Mart, success depended not on superior products, but on a superior process, and each is an example of the relentless 'algorithm-ization' that paved the way for massive value creation in the 20th century.

This dynamic accelerated in the latter part of the 20th century, when many algorithms were driven to code. While coding enables an incredible increase in efficiency, it is also true that with coding comes the end of judgment: patterns of 0's and 1's have

no judgment or artistry – they just automatically apply an algorithm. This is simply the result of the combination of the relentless march of understanding with the relentless march of Moore's Law – all of which lead to binary code.

So where do we go from here? Will there be more relentless algorithmization? I don't think so. I see the beginnings of a fundamental backlash against the codification of the world around us – a realization that reaching to grab the benefits of economies of scale often involves accepting standardization and soullessness in exchange.

Implications for Businesspeople

There are three major implications of this shift for today's business people. The first is that design skills and business skills are converging. The skill of design, at its core, is the ability to reach into the mystery of some seemingly intractable problem – whether it's a problem of product design, architectural design, or systems design – and apply the creativity, innovation and mastery necessary to convert the mystery to a heuristic – a way of knowing and understanding.

To be successful in the future, businesspeople will have to become more like designers – more 'masters of heuristics' than 'managers of algorithms'. For much of the 20th century, they moved ahead by demonstrating the latter capability. This shift creates a huge challenge, as it will require entirely new kinds of education, since until now, design skills have not been explicitly valued in business. The truth is, highly-skilled designers are currently lead-



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Good Design is Good Business

"Design is an integral part of business culture," internationally renowned jewellery designer Kai-yin Lo says. "It can be said that design is the contemporary expression of Hong Kong's material culture. Besides, design adds quality, efficiency, comfort and beauty to our lives. It not only returns the investment manifold; it also creates new value, and new awareness."



Kai-yin Lo
羅啟妍

Through design, Ms Lo has managed to create a new direction for jewellery. As Suzy Minks, fashion editor of the international Herald Tribune, pointed out: "She has enabled more people to enjoy jewellery."

The creative mix of coloured stones is the hallmarks of Kai-yin Lo jewellery. India and Thailand traditionally have a thriving colour stone cutting industry, but Ms Lo says the design is the key that makes the difference in the finished product. And this philosophy is no different to any other type of business. Hong Kong suffers from a lack of trained or truly creative designers, not only in jewellery, but also in other fields, such as accessories, shoes and bags. There is a tendency to think that creative design should first be applied to fashion, and big industries. People are less aware of the great potential and market possibilities of these so-called 'allied to fashion' industries producing accessories.

She feels there is ample room for design development in these fields and that Hong Kong needs to do more to groom designers by widening their horizons. They also need more exposure to regional and international markets through fairs and igniting cultural stimuli through design and museum exhibitions, as well as giving them the freedom to express their creativity. Of course, the most basic grooming is through education and that has to start with art classes in primary and secondary schools to develop a lively, flexible and creative mind. Hong Kong's higher design schools and universities produce about 1,000 designers a year. But truly great or creative designs involves more than just receiving an education or qualification in design – it is the expression embodying the vigour and diversity of creativity and the depth and breadth of cultural awareness.

The culture of design, whether inspired by everyday events, recasting traditional elements, updating or reinterpreting old materials into modern terms, synthesizing East and West elements, or creating new forms and solutions, in the end brings about change and betterment in life and business.

'Everything changes; nothing changes' is the new slogan of the 150 year-old distinguished French fashion and lifestyle House of Hermes, reflecting the fact that core values – quality and good design – remain the same. And as maverick IBM Chairman Tom Watson said 50 years ago, 'Good design is good business.'

ing many of the world's top organizations – they just don't realize they are designers, because they were never trained as such.

The second implication is that we need a new kind of business enterprise. This new world into which we are delving will require us to tackle mysteries and develop heuristics – and that entails a substantial change in some of the fundamental ways we work.

Traditional firms will have to start looking more like design shops on a number of important dimensions. Whereas traditional firms organize around ongoing tasks and permanent assignments, in design shops, work flows around projects with defined terms. The source of status in traditional firms is 'managing big budgets and large staffs', but in design shops, it derives from building a track record of finding solutions to 'wicked problems' – solving tough mysteries with elegant solutions. Whereas the style of work in traditional firms involves defined roles and waiting for the perfect answer, design firms feature extensive collaboration, 'charettes' (focused brainstorming sessions), and constant dialogue with clients.

When it comes to innovation, businesses have much to learn from designers. The philosophy in design shops is, 'let's try it, prototype it, and improve it'. Designers learn by doing. 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 fray – which involves suggesting that something may be, and reaching out to it. Designers may not be able to prove that something is or must be, but they nevertheless reason that it may be, and this style of thinking is critical to the creative process. Whereas the dominant attitude in traditional firms is to see constraints as the enemy and budgets as the drivers of decisions, in design firms, the mindset is 'nothing can't be done for sure,' and constraints only increase the excitement level.

The third implication is that we must change the focus of our thinking on design and business. The trends discussed here have generated increased interest in design by the business world, but it is largely focused on 'the business of design': the traditional business world is trying to figure out what designers do, how they do it, and how best to manage them. This misses the point fundamentally, and it won't save the traditional firm. The focus should actually be placed on 'the design of business': We need to think much more about designing our businesses to provide elegant products and services in the most graceful manner possible.

Conclusion

Business people don't need to understand designers better: they need to be designers. They need to think and work like designers, have attitudes like designers, and learn to evaluate each other as designers do. Most companies' top managers will tell you that they have spent the bulk of their time over the last decade on improvement. Now it's no longer enough to get better; you have to 'get different'.

The challenge of making the transformation to the Design of Business should not be underestimated. The initial goal is to help modern managers understand this new business agenda and become shapers of contexts, to increase the likelihood that their organizations will thrive in the era of design.

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