

Roger Martin: Design Thinking

Cautious analytic thinking has proven invaluable to business. But traditional analytical methods are rarely helpful in times of dramatic change. To handle new and uncertain situations we need a different sort of approach and a different sort of logic.

If this sounds reasonably monumental, you are right. Every business professional should have a clear understanding of when the drive to produce safe, reliable outcomes works and when that same drive will kill your business.

Roger Martin, Dean of the Rotman School of Management in Toronto, explains it all in his short and accessible new book. [*The Design of Business: Why Design Thinking is the Next Competitive Advantage*](#).

I recently called up Roger to get a handle on the central ideas.

DC: Let's start with the end of the thinking spectrum we understand, the drive for consistent results.

RM: Frequently we desire consistent, replicable outcomes, but that can come at the cost of sacrificing other things we would really like. For example, someone might tell their secretary to always book them at Westin hotels so that they know what they will be getting. Now imagine a friend tells them that there is this great boutique hotel in Istanbul. The friend says, "I know your tastes and you'll absolutely love it!" Will the businessman try the fantastic hotel? No, not if they value reliability and consistency. They pass on the chance to go

to a fantastic hotel in favour of the known quantity.

Businesses often act the same way, focusing only on reliability and consistency. That gets you into trouble when things are changing. Making something reliable is inherently backward looking, we see what worked in the past and try to repeat it and perhaps make marginal improvements. We can be so focused on consistency that we may not notice that it is not working very well anymore.

We need to make a distinction between consistency and validity. A result may be consistent in that you get what you are trying to get, but the result may not be valid in the sense that it delivers the value you need.

For example, the American automakers consistently produced the same gas guzzling six and eight cylinder engines right through the oil crisis. What had worked so well in the past was no longer valid for a world looking for fuel efficient vehicles.

DC: Why do businesses value reliability over validity?

RM: One reason is that this is what has been taught, another is that it is much easier to go on improving existing reliable processes than try to find a new more valid answer.

Perhaps the biggest problem is that while you can use traditional logic to prove a modification of some existing process will pay off, you can't prove that doing something new will. The little Istanbul hotel

may be much, much better than the Westin, but you can't prove that in advance.

DC: Tell me more about proof and logic.

RM: We can prove things by deductive or inductive thinking. For example, we know that increasing market share increases profits, so if something will increase market share we can logically infer it will increase profits—that's deductive thinking.

We can also prove things by inductive logic. If we survey 1000 people and the majority respond that they like a hotel with a gym then we can say we have proof that this is a preference.

These are the standard tools for producing truth and they are both backward looking; they draw inferences by looking at the past.

Not only that they typically require some kind of simplified model for the purposes of analysis. The model may be so simplified that it no longer bears a relation to the real world. The result may be statistically sound but invalid.

DC: Can you give me an example of that?

RM: An example many people are familiar with is IQ testing. We think, "It would really be helpful to know how smart someone is. We should have a test for it." So, if we define smartness as the ability to solve little logical puzzles and then create something called the Stanford-Binet IQ test, we can test people to see if it is statistically sound. In fact, statistically you do get great test-retest reliability.

So what is the problem? Well, if we look at what people accomplish in their lives we find IQ only explains 30% of anything. The simplified model of what it means to be

smart delivers consistent results that are not particularly useful.

DC: So what do we need to come up with more valid answers, answers that will help us when we are facing change?

RM: There is need for abductive logic. This is a term invented by American pragmatist philosopher [Charles Sanders Peirce](#) (despite the spelling the name is pronounced 'Purse').

For example, deductive logic will tell you that the people who shop at Walmart are poor and poor people don't own BMWs therefore you won't find BMWs in the Walmart parking lot. If you look and suddenly find late model BMWs in front of Walmart then you've got a logical puzzle.

An abductive logician looks for the best explanation and makes the leap to the idea that bargain shopping has become cool and now rich people have begun shopping for the bargains. Can you prove this deductively or inductively? No, not yet, but you need to be willing to accept that this kind of intuitive leap can lead to more valid answers. Certainly understanding this new phenomenon will be important to retailers.

DC: You talk about design thinkers. What do you mean by that term?

RM: Design thinkers are willing to use all three kinds of logic to understand their world.

We've already mentioned how at one end of the spectrum you have analytical thinkers who hone and refine their existing models even as they get less and less valid.

At the other extreme are intuitive thinkers who say it's all gut and deny they are using any logic at all. I believe intuitive thinkers

are using abductive logic and failing to make it explicit to themselves or anyone else.

The design thinker bridges these two worlds, and works to make the abductive logic which intuitive thinkers use more explicit so that it can be shared and refined.

DC: What happens when you get intuitive and analytic thinkers in the same room?

RM: The intuitive thinker sees the analytical thinker as boring, stuck in the mud, reactionary, and close minded. The analytical thinker sees the intuitive thinker as someone who is flighty, irresponsible dangerous and must be stopped.

DC: Can you share examples of organizations who have mastered design thinking?

RM: Sadly there are very few, which is why I had to write the book. P&G has made a whole lot of progress on doing it and Target seems to have strength in analytical thinking as well as broader design thinking. Here in Canada Cirque du Soleil understands they need analysis of those things that can be analysed, but also need to keep on attempting new things beyond what analysis can show them.

DC: You devote a lot of your book to how organizations can adopt design thinking, can you offer us a word of advice?

RM: My number one word of advice is to ban the phrase “Prove it.” It may sound silly but it’s very important because ‘prove it’ is code for saying that only deductive and inductive logic are permitted and anyone drawing on abductive logic will be ignored.

The other thing is that you got to reward abductive thinking. Tackling mysteries is messy whereas running an existing algorithm is not. Right now companies reward the person running the large established organization rather than the person taking the risk of taking an unproven premise and establishing something new and better.

DC: What do you hope to accomplish with this book?

RM: The book is intended to be optimistic and revolutionary. It is meant to start a revolution in understanding the centrality of abductive thinking. In this still modernist world analysis and rationality are overvalued and we undervalue the logical leaps of abductive thinking. I hope to see this book help legitimize this kind of thinking.

The book is optimistic because anyone can be a design thinker. People naturally have this ability for abductive thinking, but are encouraged to shut it down. If organizations value validity not just consistency they will find people have the abilities they need.

Roger’s book [The Design of Business: Why Design Thinking is the Next Competitive Advantage](#) is available at Amazon.com.

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