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From its roots in a shallow, narrow tradition, the Rotman MBA is making strides towards depth, breadth and dynamism.

by **Roger Martin**

Building Better Decision Makers: The 3D MBA



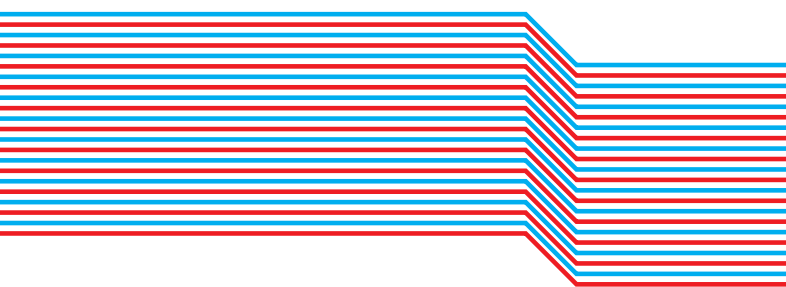
MBA EDUCATION HAS COME UNDER some heavy criticism in recent years. In my view, much of the criticism is fair, though superficial, focusing on the type and extent of our ethics training or on the lack of real-world experience embedded in MBA programs. The surfeit of easy critiques threatens to obscure the real problem, which is that we fail to prepare our graduates to make smart decisions in the face of complexity and ambiguity.

As a whole, MBA programs have taught students a suite of tested and trusted models, but left unanswered the problem of what to do when those models don't apply or start to break down. As a

result, we have left our graduates under-prepared to function in the ethically-murky, complex world outside of the classroom.

We can all-too-easily cite recent examples of catastrophically bad decision making by business leaders – including, to be fair, those with MBAs and those without. The real question for MBA programs is, how can we train our students to make better decisions? How can we equip them to avoid the traps that led to the baldly-unethical decisions at **Enron** and the ill-informed choices that caused the recent chaos in global financial markets?

To produce better decision makers, we need to address the



The problem with MBA education runs across three dimensions: where it should be deep, it is shallow; where it should be broad, it is narrow; and where it should be dynamic, it is static.

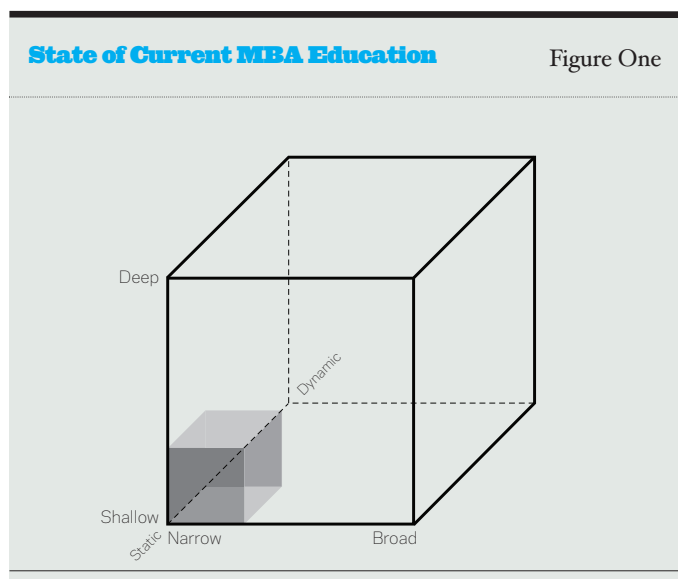
fundamental shortcomings of the MBA. At its root, the problem with MBA education – and the reason it fails to produce better thinkers than it does – is structural, and it runs across three dimensions: where it should be deep, it is shallow; where it should be broad, it is narrow; and where it should be dynamic, it is static.

If the MBA is to retain its position as the world's most sought after graduate degree – and truly deserve this distinction – we need to seriously get to work along the deep, broad and dynamic dimensions. The challenge can be visualized as follows:

many, many models. This is not a bad thing, as models are useful. For example, the *Black-Scholes Option Pricing Theorem* is useful indeed in valuing options. The problem is that neither students nor professors are inclined to delve deeply into the workings of the models being taught. Students want 'the takeaways', not the 'wiring diagram', and professors aren't always eager to detail the limitations of their models. Hence, students leave with an overdeveloped sense of the power of the models they have learned and an underdeveloped sense of their limitations. And as a result, their models get stretched and stressed, over-applied and under-examined.

Consider the *Black-Scholes Theorem*. **Fisher Black** and **Myron Scholes** derived an elegant model to price the options for European-style call options on non-dividend-paying stocks. However, this model is now used in the U.S. to value executive compensation options for accounting purposes, often without the necessary adjustment if the stock is dividend-paying and typically without a theoretically-sound adjustment for the important differences between European and American options. This tendency to over-apply models feeds into the well-deserved reputation that MBAs blindly trust their models, even as those same models take their companies over the cliff – as with the tiered securitization of subprime mortgages.

We allow MBA education to err on the side of narrowness, not breadth, for one simple reason: because it is the path of least resistance. It is simpler to perform research, to create focused models, and to teach courses within individual functional disciplines, so that is predominately what we do. In addition, it is simpler to define what we mean by 'business' in a narrow fashion. When questions are raised such as 'what are the responsibilities of business to society?', we are inclined to declare these subjects to be outside of the field of business, or to reside in fields not legitimate to study on the path to business-school tenure. Researchers in these fields can hang around the fringes of the business academy, but not really be part of it.



A Conspiracy of the Shallow, Narrow and Static

In general, MBA education teaches a shallow slice of applications and is built around the teaching of tools – in particular, of models:

I was recently asked by the associate dean of one of the world's top three business schools to review a faculty member for a tenured position in the school's 'teaching stream'. Even though this person was demonstrably one of the world's leading researchers in social enterprise, there was no consideration whatsoever that he should be considered for tenure in the school's more prestigious 'research stream', simply because the social enterprise field doesn't yet have a set of top-tier refereed journals – placing it outside the narrow definition of what is 'acceptable'.

Finally, it is easier, more rational and more reducible to quantitative analysis to teach students how to evaluate and decide *from among existing options* than it is to teach the creation of new options or models that do not currently exist. Imagine dividing the time spent by students in the average top-tier MBA program between a) learning tools and using them to analyze existing options; versus b) learning tools and practicing the creation of new options. I think we would find the vast majority – perhaps as high as 95 per cent – in the former rather than the latter category. Yes, there are courses in entrepreneurship, and there are case competitions; but in the curricula overall, there is almost nothing on theories, tools or techniques for the creation of new ideas, options or models. As with social enterprise, creativity and innovation are not considered to be particularly legitimate fields of business research, and this keeps MBA education focused on the static rather than the dynamic aspects of business.

In the face of the shallow, narrow and static MBA, our goal should be to drive management education outward across the three dimensions simultaneously to fill out the 'potential box':

Many argue that it would be impossible to affect such a transformation without sacrificing academic rigor. I disagree. In fact, I would argue that the move to a deeper, broader and more dynamic MBA actually provides an opportunity to *increase* academic rigor.

Going Deep

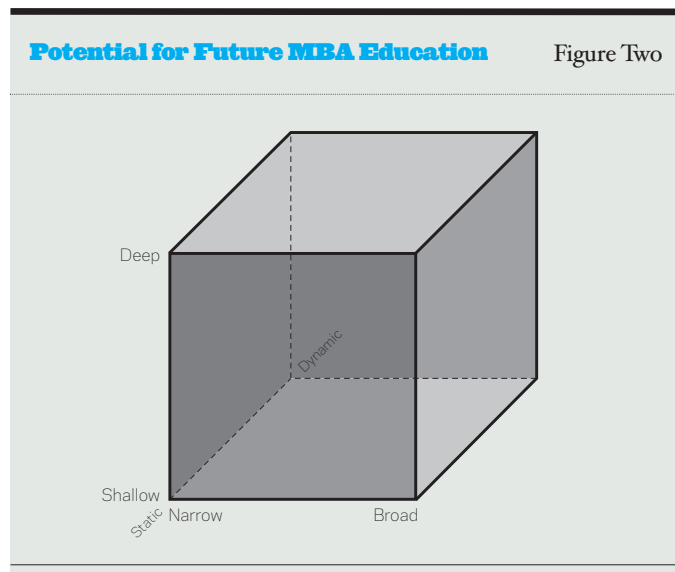
Our students need to thoroughly understand the logic structures, assumptions and limitations of the models we teach, even if they don't like it much. Very few students enter MBA programs having been taught the logical structure of models, or how to audit a model for logical consistency. It is therefore no surprise that unless given concrete tools to evaluate what they learn, students will become naïve users of the models that we teach them. I recall the wonderful scene in the movie *Witness*, in which the young Amish boy wants to break with the pacifist tradition to use a handgun so that he can shoot the 'bad men' who threaten his family. The boy's wise grandfather asks him how he will know whether the men he wants to shoot are indeed 'bad'. The lesson in this, for us, is that we must not teach MBAs to shoot the bad men without also teaching them how to tell *good* from *bad*. Unless they have rigorous criteria for evaluation, we can't just encourage them to start blasting away.

At the Rotman School, we teach students at the outset of the program about the logical structure of models and provide them with concrete techniques for reverse-engineering the models they are taught throughout the program. In the core curriculum, we have two courses that are explicitly about understanding and auditing models – Foundations of Integrative Thinking and the Integrative Thinking Practicum. In these classes, students explore and reconstruct the models widely used in the world of business, explicitly examining their reach and limitations, and are encouraged to examine the logic and assumptions of their own mental models.

In the process, we are making explicit what was previously deeply implicit, allowing our students to test, refine and deepen their models. Along the way, they are encouraged to view the models from Finance, Economics, Marketing and Strategy not as distinct, complete and unquestioned frameworks, but as tools that have better and worse uses, specific limitations and opportunities for refinement. In encouraging our students to understand, question and test the models they learn, we lead them along the path to a deeper understanding of the MBA curricula and its application in the world. We ensure that this teaching and encouragement is grounded in academic rigor, based on the research conducted by scholars at our **Desautels Centre for Integrative Thinking**.

Embracing Breadth

To make better decisions more of the time, our students need to understand that the world is a very messy place, despite all of the tidy models they have learned. They need to understand that the narrower the territory a model covers, the less relevant it is to informing productive action. For example, Finance theory is



extremely rigorous and quantitative, as long as we assume that all actors are utterly rational, profit-maximizing individuals. It gets a lot mushier when the actors are deeply flawed, emotional creatures. And if we can't assume that 'the business of business is business' per **Milton Friedman**, then a whole lot of normative models for corporate behaviour go straight out the window. Yes, it would be

lovely if executives could focus solely on maximizing shareholder value; but what if the path to maximizing value is a bit more complicated than assuming that consumers care only about direct product benefits versus price? What if they also care whether a corporation is 'good', with good defined in partially emotional ways?

An important step to better decision making – and to a better

Applying the 3D Approach

Taking a 3D approach leads some of our students into areas they might never have expected to find themselves. In one case, it led them to the chemotherapy clinic of **Princess Margaret Hospital (PMH)** in Toronto. PMH – which ranks among the top cancer research and treatment hospitals in the world – received a donation to overhaul the design of its chemotherapy clinic. When **Brian Golden**, the head of the **Rotman Collaborative for Health Sector Strategy**, heard about the project, he called **Heather Fraser**, director of **Rotman DesignWorks**, to encourage her to get involved.

The team at DesignWorks had already tackled projects ranging from high-performance bicycles to enterprise software. Working with a broad array of corporate clients, they had aggregated or developed a wide array of tools centred around the three goals of business design: to gain an in-depth understanding of the user experience; to design products and services to make that experience better; and to create business activity systems that deliver those products and services sustainably and profitably. DesignWorks now set out to apply these same tools and techniques to the world of health care.

First, they needed to 'go deep'. The DesignWorks project team, headed by Rotman grad **Mark Leung** (MBA '06) and OCAD grad **Eugene Grichko**, dove into developing an understanding of patients and their experiences. Many of PMH's patients receive their treatment on an outpatient basis. At the daycare chemotherapy clinic, they sit in reclining chairs, in a large treatment room with other patients, and are given cancer-fighting drugs intravenously. Depending on the prescribed treatment, each session can take between 30 minutes and several hours. The sessions may be as frequent as every day and can recur for months at a time. As Leung and Grichko learned, receiving chemotherapy can be painful, tedious and terrifying – often all at once.

DesignWorks team members spent weeks at the hospital, speaking to patients, and asking some to document their experience in their own words. They used journals and 'journey-maps' – models of places and activities that filled the patients' days – to understand not simply what it felt like to go to the clinic, but what it felt like to be a person undergoing cancer treatment. In the end, the team found that there were two deep-seated needs common to all the patients they met: the patients needed help to relieve their anxiety and, above all, they needed hope.

Next, the team brainstormed around how to meet the needs they

had identified. They broadened their resource base by reaching out to oncologists, surgeons, nurses, pharmacists, hospital management – as many different groups as possible – to generate ideas related to reducing anxiety and inspiring hope throughout the treatment process. In just one 60-minute session with this diverse group, over 300 ideas emerged. Using those ideas as a springboard, the DesignWorks team worked to create a prototype of the ideal patient experience – one that made room for reflection, inspiration and connectivity.

The third step was to develop a dynamic business and operational strategy for the chemotherapy clinic. In the end, DesignWorks encouraged PMH to extend its concept of patient care beyond 'the administration of chemotherapy' to encompass 'the emotional care and wellness of the patient'. Recommendations included changing the physical environment of the clinic so it would be less like a hospital and more like a spa; extending programs to help patients feel and look their best; and developing a patient community that enhanced emotional well-being through counsel and support.

A practical example of the kind of recommendation that DesignWorks brought forward: information, the team had learned, was often a cure for anxiety. "We kept hearing patients say, 'I don't know what's going on,'" Fraser recalls. Patients spent hours waiting for tests, treatment, and follow-up consultations, never knowing exactly when they would be called. The DesignWorks team told hospital administrators that enhanced information technology would alleviate many of the unknowns that produce anxiety. "We emphasized to them that IT wasn't just a line-item in a budget," says Fraser, "it's a way to ease their patients' anxiety about their treatment – and at the same time make their operations more efficient. Information technology is a means to an end – which is a better patient experience *and* a better way to do business."

For PMH, the project was a revelation. As one executive noted, "This project has given us focus, an action checklist, and a way of prioritizing. It gives us a guideline for ongoing planning and a brief for architects, IT, communications, and staff. It will be the basis for all decisions going forward. From now on, we will always ask, 'Does this meet the patient's needs? Does it really count?'"

The DesignWorks approach gave the folks at PMH a framework for making better decisions – a 3D framework that embraces deep, broad and dynamic dimensions. It's an approach that MBA programs would do well to emulate. – **Roger Martin**

MBA – is enabling exposure to a broad suite of models, beyond the standard business disciplines. While it is helpful to examine the models and assumptions from the traditional business disciplines in contrast to one another, it is our desire to go even broader. To this end, the Rotman School has created a number of institutes that push the boundaries of the traditional business academy: we recruited **Richard Florida** to head the **Martin Prosperity Institute**, expanding the discussion of economic prosperity beyond the corporation to jurisdictions and communities; we built the **AIC Institute for Corporate Citizenship** to study and teach ways in which corporations can act as a positive force in society; and we launched the **Collaborative for Health Sector Strategy** to explicitly connect the worlds of business and health care, building a unique partnership that leverages the best models available in both fields.

These Centres fundamentally contribute to the cause of broadening the dialogue, exposing our students and faculty to a multiplicity of views that they could not get at a traditional business school. And they reinforce the view – which we promote assiduously – that while it would be handy for solutions to lay within the boundaries of narrow disciplines, they almost never do. The more territory your view of the world can encompass, the better chance you have of using ideas from across that diverse terrain to arrive at a better decision.

Getting Dynamic

Teaching our students to deeply understand their models and to consciously work to broaden the set of models from which they can choose gets us only part of the way to a better MBA. If we stopped there, we would produce broad-minded technocrats – smart thinkers who can assess models, compare and contrast, test and challenge them with an eye to incrementally improving existing models. Such thinkers – who have pushed out along both the broad and deep dimensions to fill in the potential two-dimensional face of the cube in Figures One and Two – would be a marked improvement on the standard.

Unfortunately, the vast majority of value created in business today comes not from applying quantitative analytical techniques to choose from among existing options, but from *creating options that do not yet exist*. Value comes from creativity, from innovation, yet business education has precious little to say on the source and development of new-to-the-world ideas. Here, too, the Rotman School has been working diligently to push along this frontier, developing students who are capable of thinking more dynamically and of generating new ideas from the models in front of them.

Beyond exposure to and an understanding of different models, the next step in creating a 3D MBA is a willingness to embrace the possibility of creating new and better models. The key players in researching and teaching this dimension at Rotman are the Desautels Centre for Integrative Thinking (DCIT) and its Business Design Initiative offshoot, **DesignWorks**. In our second-year

Integrative Thinking electives, developed within the DCIT, we ask students to integrate across opposing models, learning and practicing specific tools to create new and better models.

Consider the final project in my course, *The Opposable Mind*, which requires students to tackle some of the world's most wicked problems – pushing beyond existing models to look for a better answer. In thinking about health care for the developing world, for instance, rather than accepting either a big-Pharma approach or a traditional public-health approach, students explore whether there might be a third way. The answers our students have arrived at in six short weeks give me hope for their future, and ours.

At DesignWorks, we have been working with the world's best designers and design schools to fuse design education with business education in a way that enables the creation of new ideas from existing models. Here, our students work hand in hand with students and professors from the **Ontario College of Art and Design**; they learn rigorous methods for combining design and business strategy based on our own research; and they practice those techniques for real corporations on burning issues for which traditional analytical approaches have been found wanting. The students focus on creating a new answer that truly addresses the problem, embracing the mess and chaos of a dynamic world to find a valid solution. To get there, they learn to use the approach of an ethnographer to go deep into the problem; the techniques of a designer to prototype, test and refine a solution; and the tools of the design strategist to create a viable business model for the innovation.

In closing

Deeply exploring current models, broadening the set of models we hold and dynamically creating new models out of the old: none of this is easy, especially in the face of an engrained bias towards the shallow, narrow and static approach.

It has taken 11 years for the Rotman School to get part of the way to the goal of depth, breadth and dynamism. But the task is worth the effort. Our students deserve it, as does the society that they graduate to serve. **R**



Roger Martin is Dean, Premier's Research Chair, professor of Strategic Management and director of the AIC Institute for Corporate Citizenship at the Rotman School of Management. In October, he was named to the *Thinkers 50* list of the world's leading management thinkers. His latest book is *The Design of Business: Why Design Thinking is the Next Competitive Advantage* (Harvard Business Publishing, 2009).