

Rethinking the Case Method

Giles Jackson
Shenandoah University

The case method was introduced into business education almost a century ago with the assumption that to be effective, learning must reflect actual practice. This paper argues that the case method rests on an outdated model of decision-making, one better suited for the simple and relatively stable environments of the post-war era. To regain its relevance and value, a fundamental rethinking of its purpose, theoretical underpinnings, and means of production is required. This is the impetus for Case 3.0, a nascent social enterprise whose aim is to build entrepreneurial capacity, both in the classroom and out in the field.

INTRODUCTION

The Merriam-Webster online dictionary defines a profession as “a calling requiring specialized knowledge and often long and intensive academic preparation.” From the very beginning, professional schools imparted the requisite body of specialized knowledge using highly standardized methods. But in the late 19th century, the academy began to question the efficacy of lecture and drill as a means to prepare students for the world of practice. Professionalization had taken root, but there had been no equivalent expansion of wisdom — the fruit of a balanced development (Whitehead, 1967). In 1870, a new dean at Harvard Law School, Christopher Columbus Langdell, broke with tradition by introducing cases. Influenced by the prevailing philosophy of inductive empiricism, Langdell viewed law as a science and appellate court decisions as the specimens from which generally applicable principles could be induced. He assembled a representative set of court decisions to create the first legal casebook.

Inducing general principles from a small selection of cases was a challenging task for which a new pedagogy was required (Garvin, 2003, p.58). Langdell developed what later came to be known as the ‘Socratic method’: an interrogatory style in which instructors question students closely about the facts of the case, the points at issue, judicial reasoning, underlying doctrines and principles, and comparisons with other cases. Students now prepared for class knowing that they would have to do more than simply recite back material they had committed to memory; they had to present their own interpretations and analysis and face detailed follow-up questions (ibid).

Langdell’s method initially met with resistance from students and alumni, but by 1920 it had become the dominant pedagogy in legal education. It was then that Harvard Business School (HBS), presided upon by law school graduate Wallace P. Donham, adopted the case method. Donham saw that the use of cases in law schools was made possible by several factors: (1) the vast number of published legal decisions; (2) classification of subject matter by instructors; (3) published case books; (4) the elements in the typical law case; and, (5) the development of general principles from the discussion of individual cases. However, lacking access to public records of business decisions, business faculty had to rely on anecdotal information.

Business cases, Donham reasoned, should be pragmatic in nature, describing real problems in need of real solutions. Both relevant and irrelevant material would be included, so that students would obtain practice in selecting the applicable facts. There would be less emphasis on theories or principles, because these were viewed as inapplicable to business. What mattered were the particulars of each situation, which were to be understood and analyzed in detail. Melvin Copeland, a professor of marketing, produced the first collection of business problems, and in 1921 the case method was ratified by a faculty vote. The 'Bureau of Business Research' was established to develop and write cases until faculty were able to work independently; and by 1922, 85 institutions had adopted casebooks. By publishing books and offering seminars and case-teaching workshops with support from major institutions such as the Ford Foundation, Harvard faculty members accelerated the diffusion of the case method around the globe (ibid).

Typically consisting of 10 to 20 pages of text, and 5 to 10 additional pages of exhibits, the modern business case is intended as an analog of reality, a substitute for the direct experience of a business situation — the equivalent of the laboratory used to educate scientists and doctors. Based on real events, it is a narrative that opens up opportunities for analysis and discussion about specific problems and issues, and helps participants develop the knowledge, skills and confidence to systematically think through and solve similar situations in the future. To perform its prescribed role, a case must have the following three characteristics: a significant business issue or issues; sufficient information on which to base conclusions; and, no stated conclusions (Ellet, 2007).

Four types of situations tend to occur repeatedly in cases: (1) Problems — a situation in which something important has happened, but we don't know the cause(s); (2) Decisions — a situation in which options, evaluative criteria and relevant evidence must be identified; (3) Evaluations — a situation in which the worth, value or effectiveness of a performance, act or outcome requires assessment; and, (4) Rules — a situation in which the right rule (e.g. break-even analysis) must be applied to obtain the required information (ibid). Regardless of the type of situation portrayed, every case asks a compelling question of the student: What would *you* do in this situation?

Whereas textbooks are logical and coherent in their presentation, cases attempt to introduce more realism by adding uncertainty, fluidity and contingency. Thus, many cases have 'complicating properties': information that includes 'noise' (irrelevancies, dead ends, and false, biased or limited testimony by characters in the case), unstated information that must be inferred, and a nonlinear structure in which related evidence is scattered throughout the text and is often disguised or left to chance.

The dilemma facing all students beginning a new case is that they don't know what to look for. For this reason, an active, purposeful, interrogative and structured approach to case analysis is recommended. According to Ellet, this should have five phases:

- 1) *Situation*: First, the student should spend 5 minutes reading the first and last sections of the case to identify the type of decision situation.
- 2) *Questions*: Armed with this information, the student should spend about 15 minutes performing a content inventory, building a mental map of the case, marking up high-value sections, facts, numbers and statements pertinent to the problem, decision or evaluation at hand, and recording thoughts and new questions along the way.
- 3) *Hypothesis*: Lasting approximately 45 minutes, the third (and most important) phase is to formulate hypotheses. For example, if the case involves a problem, the student might hypothesize that the protagonist (say, a corporate officer) is the primary cause.
- 4) *Proof and action*: The next 40 minutes should be spent searching for quantitative and qualitative evidence to support the hypothesis, and thinking through the implications (tangible actions and a detailed plan of implementation).
- 5) *Alternatives*: Finally, 15 minutes should be spent scrutinizing the hypothesis by asking, for example, whether the problem could be defined differently, what the biggest downside of the recommended decision might be, and whether other pertinent facts may undermine the recommended course of action.

Students are expected to come to class with a recommended decision and implementation plan, and extensive supporting analysis. They often work in study teams to share the workload and refine their ideas. Then, under the questioning and guidance of the professor, they probe underlying issues, compare different alternatives, and finally, suggest courses of action in light of the organization's objectives. Classroom interaction is often enriched by a diverse group of students representing many industries, functions, countries, and experiences.

Proponents of the case method argue that in contrast to a lecture-based approach, time is more productively spent discussing cases about actual business problems and solutions. Students strengthen their diagnostic skills in a world where markets and technologies are constantly changing, developing the ability to quickly characterize both the common and the distinctive elements of business problems. They develop leadership skills by learning to make difficult decisions with limited information and significant uncertainty, as well as learning to cope with ambiguity. They enjoy a safe environment in which to learn other skills critical to business success: the ability to persuade and inspire others; reconcile differing viewpoints; prioritize objectives; and, identify and capitalize on opportunities. Over time, this practice builds a strong commercial frame of reference, along with a broadened perspective. In summary, “a steady diet of cases leads to distinctive ways of thinking — and acting” (Garvin, 2003, p.61).

A recent study of the state of the MBA degree by HBS professors Srikant Datar and David Garvin — based on interviews with 30 deans and associate deans, 28 executives and recruiters, students and leading academic critics, as well as detailed analyses of eleven business school programs and other pertinent data — found that schools that had made the case method the cornerstone of their curriculum produced students who were better able to think and act across disciplinary and functional boundaries, and comprehend the real challenges faced by practicing managers (Thompson, 2008). Competing schools, on the other hand, had lost touch with reality, having organized themselves along disciplinary lines (the chief recommendation of a highly influential Ford Foundation report published in 1959).

Reflecting on the discussions that took place during an associated faculty colloquium on the future of the MBA degree, Prof Garvin detected “no sense at all that the case method is in need of repair” (ibid). On the contrary, I shall argue that many of the “distinctive ways of thinking and acting” cultivated by the case method have been rendered obsolete by fundamental changes in the business environment, which calls for new knowledge, new skill sets and new values. While the case method was ideal for the relatively simple post-war business environment, it does not adequately prepare students for a complex post-Lehman world. We must accept the necessity for reform imposed by the new circumstances.

The article proceeds as follows. In the first section I introduce a theoretical framework from the field of complexity studies, which is concerned with describing and explaining phenomena associated with emergence and self-organization. Then I identify ten limitations of the case method, all of which stem from its design for another era. In the third section I introduce Case 3.0, its knowledge architecture and operating model, as well as the results of the pilot test conducted during 2010. This is followed by a brief discussion of the lessons learned, and a revised approach to case building now in development.

THEORETICAL FRAMEWORK

In the halcyon years before the financial crisis, during what economists call the ‘Great Moderation,’ long-term planning was the hallmark of the modern firm and the modern society. Apart from the quarterly check-up, managers could act for the most part habitually and unreflectively, safe in the knowledge that things were going more or less according to plan (Tett, 2010). That era is over. Researchers David Lane and Robert Maxfield anticipated the seismic shifts to come in their 1996 paper ‘Strategy under complexity: Fostering generative relationships,’ published (ironically enough) in the journal *Long Range Planning*. The crux of their argument is that the meaning of strategy depends on the ‘foresight horizon’ — how far ahead, and how much, we can foresee.

At the outset, Lane & Maxfield construe any business domain as a space consisting of agents (firms, customers, associations, stakeholders, and so on) and artifacts (objects or services designed, produced and exchanged by agents). This space is structured by various relationships: between agents, between

artifacts, and between agents and artifacts. ‘Vision’ and ‘mission’ together determine a firm’s directedness in agent/artifact space by selecting a particular kind of artifact that the firm commits itself to create, identifying the kind of agent(s) to whom the firm intends to sell these artifacts, and establishing the general direction in which the firm would like the current structure of agent/artifact space to change. ‘Goals’ specify the desired outcomes for the firm: resources, financial or social returns, or particular reconfigurations of agent/artifact space; while ‘tactics’ determine how the actions in which the firm intends to engage will actually be executed by various component agents. ‘Strategy’ lies between directedness and execution, in that it lays down ‘lines of action’ that are intended to produce desired outcomes. Since outcomes depend on the interactions with and between many other agents (both inside and beyond the firm’s boundaries), strategy is fundamentally an attempt to control a process of interactions, with the intended lines of action serving as control parameters. But how much control is achievable, and how to achieve it, depends upon the ‘foresight horizon.’

When the foresight horizon is clear, all the consequences of any possible course of action, including the responses of all other relevant agents, may be anticipated, permitting the strategist to chart out a best course that takes account of all possible contingencies. This is the classical conception of strategy as ‘optimizing pre-commitment.’ What would a simple foresight horizon look like? Imagine, say Lane & Maxfield, an eighteenth-century general perched on a hill, overlooking the plain on which his army will engage its enemy the following morning:

“The day is clear and he can see all the features of the landscape on which the battle will be fought — the river and the streams that feed it, the few gentle hills, the fields and orchards. He can also see the cavalry and infantry battalions positioned where he and his opponent have placed them, and he can even count the enemy guns mounted in the distant hillsides. The battle tomorrow will consist of movements of these men across this landscape, movements determined in part by the orders he and his staff and their opposite numbers issue at the beginning of the day, and in part by the thousands of little contingencies that arise when men, beasts, bullets and shells come together. While he cannot with certainty predict the outcome of all these contingencies, nor of the battle that together they will comprise, he can be reasonably sure that one of a relatively small number of scenarios he can presently envision will actually come to pass” (p.216).

Importantly: (1) the time horizon of relevant uncertainty has a clear terminal date (tomorrow, when the battle will be fought and either won or lost); and, (2) the general is knowledgeable of all the relevant possible consequences. He also knows what he is uncertain about: not only the ultimate winner, but also what will determine the outcome: how troops move, how they will engage the enemy, and the terms and conditions of engagement.

During the Great Moderation, business strategists behaved rather like eighteenth century generals. Armed with powerful computer models, their job was to specify a particular course of action for the next decade or so, optimizing among a set of specified alternatives on the basis of an evaluation of the value and probability of their possible consequences. “Business schools trained a generation of MBA’s in optimization techniques,” explain Lane & Maxfield, “and strategic planning departments and consulting firms honed these tools to fit a myriad of particular circumstances” (p.215). Firms that had to look further out because of long investment horizons augmented optimization with scenario planning. In 1971, Royal Dutch Shell started building outlooks on the medium and long-term future of the energy sector, anticipating the oil shocks to come.

When a foresight horizon gets complicated — when we cannot foresee a priori all the important consequences of a contemplated course of action, let alone carry out expected gain calculations — the old calculus breaks down. What would a complicated foresight horizon look like? Imagine a commanding officer of a U.S. cavalry column marching through an uncharted section of Montana in the early 1870s. Unlike the general atop the hill, he doesn’t know the landscape, the positions, capabilities or likely movements of the enemy. He knows the general direction he wants to take his men, but any attempt at scenario building is confounded by the sheer number of possibilities (geographical, social,

meteorological, etc) for the unexpected to happen. He relies instead on his scouts to keep him informed about what lies just beyond the horizon, and he is confident that based on past experience, he will recognize whatever situation he encounters and take the appropriate action. His time horizon of relevant uncertainty is less clear than that of the general (it could be a matter days, but also possibly a weeks before he reaches his destination); and, while he could probably list the variables relevant to the completion of his mission, this would amount to a very long list, and most of the items would probably end up not mattering anyway. During the last two decades, managers have been forced into cavalry officer mode, constantly and actively monitoring the world, trying as best they can to react quickly and effectively to unexpected opportunities and difficulties as they encounter them.

Since the financial crisis hit in 2008, foresight horizons have gone from complicated to complex. As one Financial Times columnist observed, “many businesses and financial players have developed a mentality more akin to third-world peasants, who create strategies — but do so with bated breath, constantly braced for fresh storms” (Tett, 2010). The cavalry commander negotiated a landscape of presently unknown features, but at least the landscape is relatively fixed. The landscape through which today’s decision-makers move, on the other hand, is in constant flux as it deforms in response to the actions that they and others take, as new and often unforeseen agents appear in the unfolding drama, and as the boundaries between them are reshuffled. This environment is characterized by complex crosscutting networks of collaborative and competitive relationships — though the allegiances are constantly shifting and aren’t always clear. Furthermore, the artifacts around which economic activities are organized are hard to categorize. Indeed, their very *identities* are up for grabs.

More is changing than the structure of the agent/artifact space. What’s also changing are the ways in which agents perceive their own and each other’s functionality, i.e. who does what, with whom, and why. As the entrepreneurial spirit penetrates traditionally stable domains on its path of ‘creative destruction’ (Schumpeter, 1942), incumbent agents who once had the luxury of acting like generals are forced to think differently. US energy utilities, for example, are being compelled to rethink their entire business models because of a wave of smart grid innovations, and must decide whether to remain energy providers, or enter the data management business. To complicate matters, agents must not only interpret what’s in front of them, but also reinterpret many things that were previously regarded as fixed, but whose character has been changed by their relation to emergent features. Since their destination is always temporally beyond their current foresight horizon, the connection between what decision-makers do and where they are going is always tenuous and ambiguous, say Lane & Maxfield.

All theory presents a simplified abstraction of processes in the real world, and in the process of simplification, violence is necessarily done to its complex and multifaceted nature (Webb, 1995). The more complex and multifaceted the environment becomes, the greater the gulf between theory and practice. For instance, entrepreneurship is often depicted as a series of consecutive steps: (1) identify opportunities, (2) select the best opportunity, (3) craft a business plan articulating the business model, (4) gather the necessary resources, (5) build a business that survives and prospers, and (6) harvest or leverage the value created. But in a complex environment, the process is far less predictable. Even successful ventures like PayPal typically pass through several convoluted cycles before finding a workable formula. As John Mullins and Randy Komisar wrote in *Getting to Plan B*:

"Max Levchin’s Plan A was not to be. Demand for security on handheld devices never materialized. He remained a vagabond. But he was cooking another idea. Max pursued a Plan B that centered on cryptography software. “It’s really cool, it’s mathematically complex, it’s very secure,” said Levchin. But once again, no one really needed it. Plans C, D, and E didn’t work out any better. Levchin’s Plan F, still based on his cryptography expertise, was a system for transferring cash from one PalmPilot to another. As part of that effort, Levchin’s team built a Web-based demo version that did everything on a Web site that the PalmPilot version could do. By early 2000, people were using the Web version for actual transactions, and the growth of the Web demo was more impressive than for the handheld version. “Inexplicable,” recalled Levchin” (p.4).

Levchin stumbled across a viable business model more or less by accident. More and more people from a site called eBay asked if they could put his firm's logo in their auction. Their requests were denied, until Levchin and his team eventually realized these people were going to be his core users. For the next twelve months they iterated on the Web version, and the (unplanned) 'Plan G' struck gold. Eventually, eBay bought PayPal for \$1.5 billion.

What does it mean to act rationally in the face of a complex foresight horizon, when the very structure of the world may undergo cascades of rapid change? Rajiv Dutta, former president of eBay marketplaces, Skype and PayPal, says we should scrap scenario building altogether: "A far better approach is to maximize your chances of luck. Execute against a variety of promising avenues. Open the company to information from outside. Stay close to start-ups in your industry...Any singular strategy that is built on a singular world-view of the future is highly likely to fail" (Darroch, 2010, p.x). In other words, in a complex environment in which the chances of finding a winning business model on the first attempt are materially lower, the wisest course of action is to pursue multiple lines of action simultaneously. Mullins and Komisar say we should be prepared to change our plans in real time as the inevitable and unforeseen challenges arise, 'stress testing' each iteration to figure out whether to abandon or modify the business model. This is a learning process without any guarantees, and therefore not one that should be left to chance. A deliberate and systematic process of research, analysis and reflection is required to generate and test hunches and hypotheses, drawing inspiration and lessons from 'analogs' (successful predecessors that are worth mimicking in some way) and 'antilogos' (predecessors you want to be different from, perhaps because they were unsuccessful). This ongoing process is tracked with 'dashboards.'

Lane & Maxfield propose a broader set of strategic practices to maximize learning and opportunity in a complex environment, and increase the probability that successful deals (e.g. PayPal and eBay) will happen by design, rather than by accident. First, decision-makers should 'populate their world' i.e. identify, criticize and reconstruct attributions about who (other agents) and what (opportunities, constraints, artifacts) exist in their environment, building a kind of ontological road map on which to locate the effects of possible actions. Second, armed with this knowledge, they should 'foster generative relationships' wherever there appears to be a sufficient payoff. If and when new opportunities emerge from these relationships, "agents must learn to set aside prior expectations and plans and follow where the relationships lead" (p.230). The point is that in complex environments, it is meaningless to interpret strategy as a plan to assert control (i.e. try and force an optimized Plan A on the market). In a dynamic, global economy, control is not centralized but distributed, and therefore, decision-makers must understand where it resides, how it is exercised, and how it may be leveraged.

The challenges of operating in a dynamic global business environment are only expected to increase in the decades to come. According to the recent IBM study *Capitalising on Creativity*, seventy-nine percent of the 1,541 leaders interviewed said they anticipated even greater complexity ahead. This calls for greater creativity, intelligence, agility and speed, but according to another IBM study, *Working Beyond Borders*, a number of boundaries — functional, cultural, geographical, generational and informational — prevent enterprises from realizing their full potential. As will be argued in the following section, the case method may have contributed to the problem. If business graduates are to address emerging opportunities, whenever, wherever and however they arise, business school must equip them with the tools — conceptual, contextual and creative — to recognize and transcend arbitrary boundaries.

THE CASE METHOD: A CRITIQUE

Of the ten problem areas highlighted below, five are concerned with the temporal and spatial boundaries of the case study (problem definition, meaning of strategy, decision horizon, geographic scope, industry/sector scope); one with the method of case production (research methodology); one with case delivery (technology platform); and, three with the learning process itself (mode of reasoning, theoretical content, experiential content). These are discussed in turn.

1. Problem Definition

The first requirement for successful strategizing in the face of complex foresight horizons, say Lane & Maxfield, is to recognize them for what they are. In complex environments, all problems are interconnected, i.e. parts of larger messes. According to Mitroff & Silvers (2009): “No individual problem can be taken out of the mess without changing the nature of the problem and of the entire mess itself. If business schools were to teach their students to examine problems in terms of the broader systems of which they are a part — in short, to tolerate and to appreciate messes — the better off we would be. We need leaders who can cope with messes as a whole.” Business students should be encouraged to learn from a broader range of disciplines outside the business school to enhance their understanding of the complex interdependence between business and society generally (Carey, 2010). Although case studies have ‘complicating properties,’ they still tend to present problems as discrete and independent, thus conforming to the particular subject being taught. This often leads to the wrong problem being solved precisely. A more holistic and inclusive approach to case building is needed.

2. Meaning of Strategy

Forged in the old paradigm, the case method puts students squarely in the boots of the 18th century general on the hill. From this elevated vantage point, their task is to assess the ‘decision situation’ objectively, studying the business landscape and its likely evolution (‘situation,’ ‘questions’); formulating the single best strategy (‘hypothesis’); gathering supporting evidence and developing a battle plan (‘proof and action’), and subjecting this to due diligence (‘alternatives’) in order to arrive at a recommendation. While this exercise may help instill a sense of confidence, answering the deep human need to feel in control of one’s environment, this sense of control can be illusory (Makridakis *et al.* 2009). Moreover, in the real world, the old command-and-control philosophy has given way to less hierarchical (low-authority, high-conflict) work environments. In this context, the misplaced assault of ideas from above runs the risk of backfiring by provoking a stubborn resistance.

3. Decision Horizon

A recent study of 1,109 chief executives from 1995 to 2009 found that many live by the quarter. “This is wrong,” said the researchers. “Great results take time to build” (Ibarra *et al.* 2010). The case study, which freezes a business situation at a specific point in time, fails to convey the long view, or what it takes to build something that endures, including the ability to bounce back from setbacks that are inevitable in any competitive arena. Neither does it teach students what it means to adapt creatively in a cognitively ambiguous and structurally emergent environment (i.e. how to get from Plan A to a viable plan *N*, and keep on iterating). This knowledge is of obvious importance to would-be entrepreneurs and social entrepreneurs. Clearly, a more longitudinal approach is needed. This need is being addressed at the macro level by institutions such as the Kauffman Foundation, which since 2004 has tracked a cohort of almost 5,000 firms annually, asking detailed questions on a range of topics in order to develop better, empirically-grounded theories about the impact of different variables on entrepreneurial outcomes. What’s missing, however, is the micro perspective. While it is by no means clear how to capture and convey life at the level of the firm, we may seek inspiration from other fields.

4. Geographical Scope

Another frequent criticism of business education is that students lack global awareness, which comes as no surprise given the western bias in the global case inventory. A recent IMD study of 21,454 business cases written between 1993 and 2008 found that about half were about firms in North America (approx 8500 cases), Western Europe (approx 3000 cases), China (913) and India (1410). Emerging economies, whether in Asia, Africa, Europe, the Middle East or South America, are woefully underrepresented. There was a total of 13 cases for Bangladesh and Dubai; 12 each for Tanzania, Jamaica and Iceland; 10 for Saudi Arabia; 9 each for Estonia, Kuwait, UAE and Sudan; 8 each for Bolivia and Sri Lanka; 7 each for Barbados, Iran, Nicaragua, Trinidad and Zimbabwe; 6 each for Ghana, Guatemala, Romania and Slovakia; 5 each for Bulgaria, Haiti, Honduras, Iraq, Lesotho, Luxembourg, Morocco, Puerto Rico and

Zambia; 4 each for Burma, Chad, Cuba, El Salvador, Lebanon, Nepal and Tunisia; and, 3 each for Afghanistan, Albania, Bermuda, Cyprus, Dominican Republic, Guyana, Laos, Qatar, Rwanda, Samoa and Uruguay (Read *et al.* 2009). The deficit of quality cases in emerging markets is a serious issue, because this is where most of the growth has and will continue to come from (for instance, the MSCI Emerging Markets Index returned 13.2 per cent annualized for the 10 years ended December 2010, versus just 0.6 per cent for the MSCI index for developed markets). According to Ibarra *et al.* (2010): "The MBA curriculum and experience needs more global cases, more discussions of multicultural issues and more comparisons of international ways of doing business." These cases are important not just for their factual content, but also because they teach us to think with what the political theorist Hannah Arendt called an 'enlarged empathy' — a basic requirement of what she, following Kant, called 'the world citizen' (Arendt, 1982). AACSB International has said that to accelerate progress toward globalization, every accreditation visit must include structured dialogue about the curriculum and globalization strategies and processes (AACSB International, 2011).

5. Industry/Sector Scope

Trucost, an environmental data provider, estimates that the annual environmental costs from global human activity are about \$6,600bn, and that the world's top 3,000 companies are responsible for about \$2,200bn of damage. According to Gladwin & Berdish (2010): "Business schools now espouse efficiency rather than equity; moral questions are treated as tangential, rather than fundamental, to business decisions." The UN Global Compact responded to this general concern with its 'Principles of Responsible Management Education,' developed with input from AACSB International, the European Foundation for Management Development, the Aspen Institute, the Globally Responsible Leadership Institute, the European Academy of Business and Society, and Net Impact (United Nations Global Compact Office, 2010). To implement Principle 3 (*create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership*), we need to increase the number of cases addressing social, environmental and related ethical issues. Since the organizations involved are now at least as likely to take on non-traditional legal forms (e.g. low-profit limited liability company, benefit corporation or equivalents) as traditional ones (e.g. corporation, partnership, limited liability company, non-profit organization, or equivalents) every organizational type should be duly represented.

6. Research Methodology

Case narratives are written by researchers, based on interviews with decision-makers plus whatever secondary data is available. The obvious danger here is retrospective distortion, otherwise known as hindsight bias, where the passage of time clouds peoples' conception of past events, their probability of occurrence and how they were actually perceived at the time. Unfortunately, hindsight bias is shown to be highly resistant to any attempts at elimination (Fischhoff, 1982; Bukszar & Connolly, 1988). But perhaps there is a way out of the quandary: generate case content as events actually unfold (or soon thereafter), allowing practitioners to generate more of the content themselves. The level of realism may be further increased by drawing on available artifacts, such as email exchanges between members of the core team.

7. Technology Platform

Critics of business education say students are insufficiently prepared for an increasingly technology-dependent world in which virtual collaboration is the norm. If companies are increasingly using social media and the web to encourage bottom-up creativity, both from employees and managers, then students need to feel at home with the new format. However, the traditional printed casebook belongs to a different era. Migrating the case method to a digital platform would have at least four additional benefits. First, it would enable content to be regularly updated. The value of the case study lies not only in the habits of thought it develops, but also in the domain knowledge it imparts. It goes without saying that accurate, up-to-date content is of much greater value, and interest. Second, the digital platform provides the infrastructure for connecting ideas that until now have been kept isolated from one another. Where links abound, a rich ecosystem of commentary, archiving, social sharing and scholarship usually develops

(Johnson, 2010). Third, the digital platform enables integration of multiple media (text, spreadsheets, podcasts, video, etc), enriching case content and opening up new possibilities for analysis. Fourth, cases can be distributed across multiple platforms (desktop, laptop, iPad, etc), which will be increasingly important as these devices become ubiquitous.

8. Mode of Reasoning

Critics say that business schools must pay more attention to developing students' critical, creative and conceptual faculties. For example, Argyris (1980) argued that the case method discourages executives from questioning their underlying values or those of their organizations. While the case method does encourage more cross-disciplinary and cross-functional thinking than other approaches, its mode of reasoning is strictly 'declarative.' declarative reasoning uses deductive and inductive logic to determine the truth or falsity of a given proposition. In the case method, for example, it would be used to choose among a pre-determined set of alternatives (recall that a case always contains sufficient information to make a decision). There are two limitations with this mode of thinking. First, in complex environments, agents often do not even know what they are uncertain about. Second, the 'either-or' mentality is now considered a recipe for mediocrity. As A.G. Lafley, former Chairman and CEO of Procter & Gamble put it: "Everybody can do "or." That's the way the world works. You trade things off but you're not going to be the best in your industry. You are not going to win if you are in a trade-off game" (Martin, 2009, p.25).

To thrive in a complex environment, students need an uncompromising 'neither-nor' mindset.¹ Such a mindset requires a more comprehensive, 'modal' type of reasoning. Modal reasoning deploys not only deductive and inductive but also abductive logic, which is 'generative' in the sense that it leaps beyond available (usually insufficient) data to generate a new and better model.² This often entails the capacity to hold two diametrically opposed ideas in one's head at the same time and exploit that tension to create a new and better solution. According to Prof Martin: "Where many of their colleagues find generative reasoning to be suspect, integrative thinkers implicitly accept that generative reasoning is both conceptually legitimate and, practically speaking, the only tool suited to the job of fashioning a creative resolution. Generative reasoning facilitates the trial and error that is integral to creative resolution" (ibid, p.147). Capturing this process requires a more evolutionary approach to case building.

9. Theoretical Content

As stated earlier, whereas Harvard Law School stressed the development of general principles from the discussion of individual cases, Wallace Donham felt that theories and principles were inapplicable in the business setting; what mattered were the particulars of any given situation. A century later, this philosophy still prevails. But is it the right one? We know that managers are interested in pattern recognition, which is why they prefer to read articles in managerial journals that are based on in-depth case studies (Yip, 2011). But surely these patterns would be richer — and better supported — were we to increase the number of observations, and induce generalizable principles for testing through large sample statistical studies. This is consistent with Sumantra Ghoshal's call for studies with dual methodologies, i.e. with both academic and managerial findings (ibid).

10. Experiential Content

Critics have called for greater attention to 'soft skills' development, such as self-awareness, introspection and empathy, as well as stronger communication skills. All are of obvious importance given the pivotal role of sense making and relationship-building in modern business. Since the case method was never intended to develop these skills, the thinking at HBS and elsewhere is to introduce complementary programs. These might include integrative courses involving multiple experts who would expose students to different perspectives on complex, real-world issues; and, hands-on project-based courses. On the other hand, why not weave this experiential component into the case method itself, by making engagement with real firms an integral part of the case experience? This is in keeping with Arnoud de Meyer's proposal that we transform ourselves from 'business schools' into professionalized 'schools for business,' i.e. "schools that listen to what organisations see as their main problems and that come up with answers based

on whatever universities can offer in terms of disciplines” (de Meyer, 2010).

CASE 3.0

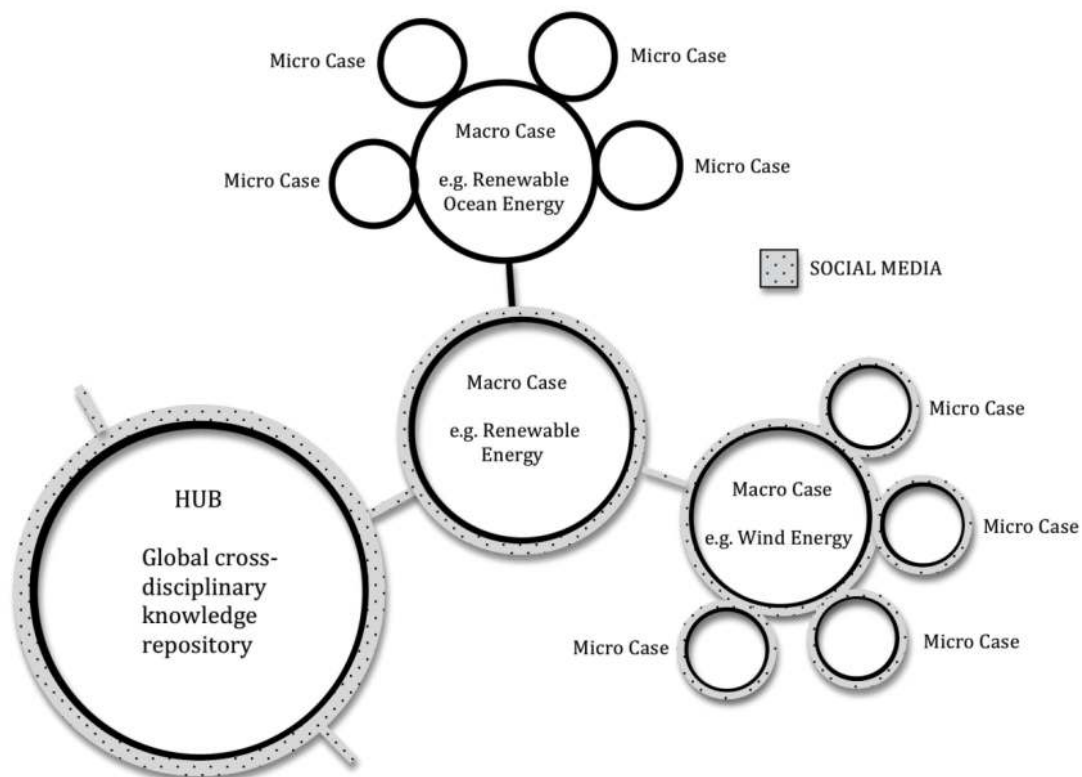
Case 3.0 is a nascent social enterprise attempting to address some of the issues described above. The goal is to create a scalable educational model with positive spillover effects for the economy and society.³ In this section I outline the Case 3.0 knowledge architecture and operating model, and then summarize the results of a pilot test conducted in 2010.

Knowledge Architecture

As shown in Figure 1, there are two basic types of digital cases envisaged by Case 3.0: macro cases and micro cases. The former encompass sectors (e.g. Renewable Energy) and subsectors (e.g. Renewable Ocean Energy). Micro cases, on the other hand, track a specific company *within* a given sector or subsector. The rationale is that students should study the relevant macro case(s) before tackling a specific company case, so as to grasp the ‘big picture’ first.

“Today, senior managers need to formulate responses to new problems of a geopolitical nature, or sustainability of the environment, conservation, energy, security or diversity on top of the problems of positioning, competition and efficient use of resources,” argues de Meyer (2010). Since many of these issues cut across sectors, there is a third dimension to the Case 3.0 knowledge architecture called the ‘Hub’ — a virtual repository of useful facts, theories, frameworks, books, articles and interactive tools from a wide variety of disciplines and fields. Links to the relevant resources are embedded in both macro and micro cases. Social media tools enable online discussion of content by students, professors, practitioners and others. Students and professors in different schools may collaborate on the same case.

FIGURE 1
KNOWLEDGE ARCHITECTURE



Operating Model

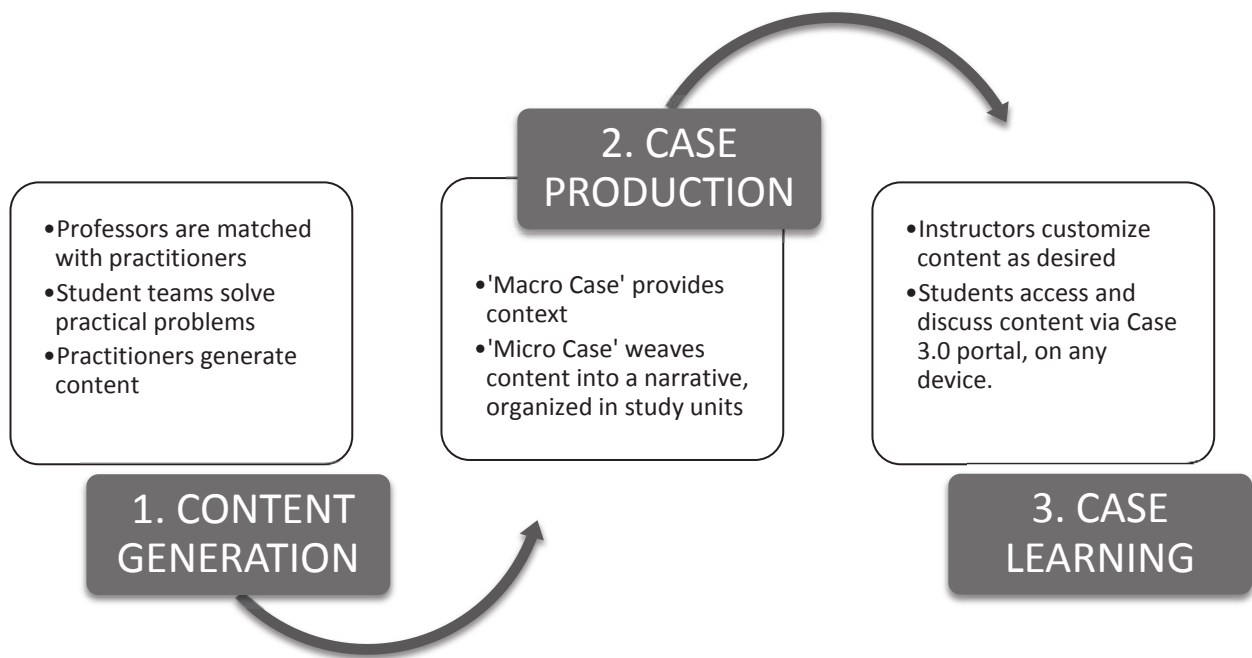
Macro cases synthesize secondary data from a wide range of quality sources, augmented with primary research. Our goal is to create a portfolio of macro cases representing the major industries of the world.

Micro case production works on the principle of reciprocity. First, practitioners generate content in exchange for focused research conducted by supervised teams of students, which helps them generate and explore new ideas and solve practical problems (see Figure 2). Case 3.0 is thus envisioned as a development tool as well as a pedagogical tool, its clients including the disproportionately large population of enterprises and social enterprises that need help but cannot afford to pay for it.

Case content may be generated over a period of months or years. Going into the pilot study, we did not specify a particular method or frequency of data collection, nor the topics to be covered or questions to be answered, choosing instead an experimental approach. Raw content (documents, video, MP3, etc.) is then uploaded to a cloud content management service accessible 24/7 by all participants.

Case content is cleaned up, imported into a purpose-built digital template and woven into a narrative.⁴ This narrative is presented in discrete study units, each accompanied by a brief teaching note on how the case may be taught successfully. As time goes by, more study units may be added, and even after a case is 'closed' there may be occasional updates. This is not only to maintain relevance and interest, but also to enable useful comparisons between 'what was planned' and 'what actually happened.'

**FIGURE 2
OPERATING MODEL**



Cases are distributed through a purpose-built web portal for access by professors, students and practitioners. Cases have an open format, enabling professors to customize the material (for example, selecting only those study units that are relevant to their course, editing or writing their own questions, and so on), import additional material, as well as exchange ideas with colleagues.

As stated above, social media tools will enable online case analysis and moderated class discussion.⁵ Students may be presented with decision scenarios and specific questions requiring them to analyze alternatives, generate new ones (abductive reasoning) and debate the implications. This is in keeping with the 'participant-centered' ethos of the case method. However, in keeping with the evolutionary bias of

Case 3.0, we have incorporated another mode of engagement that is more ‘practitioner-centered.’ Here, the question isn’t the hypothetical ‘what would you do in this situation?’ but rather, ‘what did Jane do, why did she do it, and what happened as a result?’ The contention is that students will learn more — and become better discussants — having first studied practitioners ‘in action’ via in-depth case histories.

To ensure a steady supply of quality cases, Case 3.0 is working with the Entrepreneurs’ Organization, a dynamic, global network of more than 7,500 business owners in 38 countries. Membership in one of its 118 chapters is by invitation only. The average member firm has annual revenues of US\$18.4 million.

Pilot Study

The objective of the pilot, which tested one macro case and tracked five micro cases, was to test the efficacy of the Case 3.0 concept, catch potential problems early on, and provide important information to help plan and execute research projects (how much data is needed from practitioners for case building purposes, how often practitioners can reasonably be expected to contribute, what kinds of data they are willing to generate, how best to collect it, etc).

Macro Case

We circulated a demo macro case called ‘Renewable Ocean Energy’ to a group of academics, practitioners and consultants. The revised version (Figure 3) adopted a simple question-and-answer format, inserting concepts in the margin to aid comprehension, as well as links to resources in the Hub.


**FIGURE 3
DEMO MACRO CASE EXCERPT**

RENEWABLE OCEAN ENERGY

1. Ocean Thermal Energy Conversion (OTEC)

1.1 What is the potential of ocean thermal energy?

The energy stored in tropical waters is 300 times that of the world’s energy consumption, making the oceans the largest solar collectors on Earth.¹ On an average day, 60 million square kilometers (23 million square miles) of tropical oceans absorbs an amount of solar radiation equal in heat content to about 250 billion barrels of oil.² According to a recent study by the Hawaii National Energy Institute (HNEI), OTEC technology could *potentially* harvest up to 5 trillion watts (5 Terawatts) of steady-state power, equivalent to approx 37 per cent of current world energy consumption (13.5 Terawatts). However, this potential will only be tapped with significant reductions in the **Cost of Energy** (COE). No commercial-scale OTEC systems yet exist.

 The oceans are the largest solar collectors on Earth.


 Visit **THE HUB** to learn what drives the Cost of Energy, using our interactive spreadsheets.

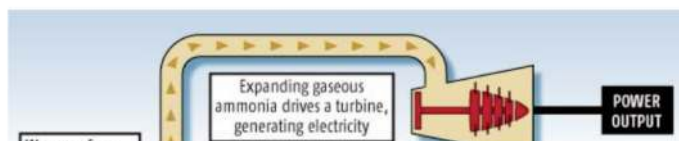


Follow this trail to HNEI’s study of global OTEC potential by Gérard C. Nihous, published in the *Journal of Energy Resources Technology*, 2007.

1.2 How is ocean thermal energy harvested?

In principle, OTEC converts solar radiation to electric power by exploiting the ocean’s natural thermal gradient (the temperature difference between warmer surface waters and cooler waters approx 1000 meters deep). In one embodiment, warm surface water is used to boil a heat transfer fluid with a low boiling point (such as propylene, ammonia or propane) and the gas produced creates enough pressure to drive a turbine, which generates power. The gas cools down as it is passed through cold water pumped up from the ocean depths via massive

 Ocean thermal energy systems exploit the temperature differential between surface and deep waters.



fiberglass tubes, perhaps 1000 meters long and 27 meters in diameter, that suck up cold water at a rate of

Two unforeseen events in 2010 had a profound effect on the company. The first was an internal division that split the enterprise into two parts. For Mr Cunningham's partners, water was the priority, not energy. Mr Cunningham agreed with them philosophically, but felt that the odds of getting funded would be higher if renewable energy were prioritized. After weeks of negotiations, it was resolved that Ocean Energy Systems (the original entity) would focus on water, whereas WECCA, a brand new entity, would focus on renewable energy. The second major event was the crisis in Ireland's economy, whose effects are still uncertain. Would the crisis strengthen Ireland's resolve to transform itself into a society based on sustainable energy structures, technologies and practices, and put itself on a sustainable economic footing? Or, would the crisis undermine all the progress made to date, undoing hard-won commitments from public funders?

Part A of this case will conclude when the current funding round is closed. Part B will track the next-generation prototyping phase. We intend to track this case through to commercialization.

Living Machine Systems, L3C

Living Machine Systems L3C (LMS), a low-profit limited liability company with B corporation certification, is a subsidiary of Worrell Water Technologies, which was founded in 1993 to develop an alternative to centralized water treatment. These are large-scale energy-intensive municipal systems that treat all water to drinking standards regardless of intended use, usually generating a large quantity of waste sludge needing further treatment and disposal. This approach cannot continue to deliver the quality, quantity and consistency of water currently consumed, much less meet the demands of the future (Lohan & Kirksey, 2011).

The emerging ecological model of water and wastewater infrastructure is analogous to the structure of ecosystems, which are composed of large numbers of diverse, fractal components that use and reuse water, energy, and materials locally. LMS' core technology utilizes ecological and microbiological processes to remove organic and inorganic contaminants from wastewater produced by communities, industry and agriculture, transforming it into clean water that may be recycled for irrigation, sanitation and other non-potable uses. These unique treatment ecosystems are optimized with efficient pumps and small microcomputers and have less than 1/3 the operating cost of conventional technologies. Clients include the San Francisco Public Utility Commission, the General Services Administration, the Port of Portland, the Esalen Institute, and the US Marine Corps.

Like WECCA, in 2010 the company went through a major reorganization. Worrell Water Technologies is now purely the business development arm of a new entity called the Living Technology Institute, a non-profit organization that works with other partners to develop and propagate the core technology. LMS' role is to design Living Machine systems for commercial, institutional, and government applications. To this end, students assigned to this project are gathering data on water and sewer rates and other data from selected municipalities with a view to developing a 'micro-utility model' that will help the company identify and prioritize business development opportunities.

Part A of this micro case tackles the structural and strategic aspects of this reorganization. Part B (in progress) is tracking the firm's forays into the micro utility market.

NW Works, Inc.

Now in its 40th year, NW Works employs people with intellectual and/or physical disabilities, either in-house or via placements with local employers. In 2009, the agency received a \$1m federal stimulus grant and in the fall of 2010 moved into a completely refurbished 58,000 sq ft facility, complete with autism center. The first cohort of students working on this project developed a marketing plan to grow the nascent paper and CD shredding business, and explored new sources of employment for the new facility (baking, weaving, gardening, woodworking, etc) that have proven successful elsewhere. To this end, a field visit was made to Innisfree, a similar community located in central Virginia. One of the lessons of this case is that social enterprises have different priorities than conventional enterprises. For example, Innisfree's bakery, which serves the city of Charlottesville, substituted fresh baked bread for granola, which allows for greater flexibility in production.

The most recent student assignment is to develop a marketing strategy for a novel tracheal tube design already in use in military hospitals. Its inventor would like NW Works to handle production for new markets and intends to reinvest all of the profits from the enterprise back into NW Works, whose plan is to start a new social enterprise every year over the next five years.

This case also provides an opportunity to address stereotypes about intellectual disabilities, and open students' eyes to employment opportunities, challenges and rewards in this sector.

Mathalicious, LLC

Mathematics education is in crisis because children lack the motivation to learn. Abstract procedural rules leave them asking, "what does this mean?" and "why am I learning this?" However, broader contextual factors may also play a role in shaping attitudes to learning. Founded by Karim Logue, a Stanford-educated former math teacher and math coach, Mathalicious brings meaning and context to math through creative real-world applications. One of the MBA teams assigned to this case conducted two focus groups at local middle and high schools to gauge teacher perceptions of mathematics education and the Mathalicious concept and identify potential barriers to adoption. The study found that high school teachers lacked confidence in the Standards of Learning, and while they were interested in alternative materials, their schedule permitted little time for experimentation. Some of the middle school teachers, on the other hand, had already abandoned their textbooks (which are written to Texas and California standards), revealing an opportunity for Mathalicious to develop materials specifically for Virginia teachers. They were enthusiastic about what Mathalicious had to offer and made recommendations for improvement, including choosing more relevant applications (celebrities, sports, shopping) and building greater interactivity to the lessons.

For Case 3.0, Mr Logue has produced a series of insightful podcasts charting his progress across a number of fronts, including product development, business model development, board recruitment and market development. For example, the following podcast excerpt (March 21, 2010) captures his thoughts on the board of directors and the nascent business plan:

"As I remember in the last video, I was talking about how I considered myself a math teacher and sort of felt as though I was having to—force upon myself this mantle of businessperson in order to manifest Mathalicious. To some degree I still feel like that although this past month and a half really has been exclusively about business, so let's hit some of those. So a status update: since we last spoke, I have started to put together the board of directors, and they really are a very hard-hitting, deep-bench group of people that include marketing specialists, people with strong relationships with school districts around the country; one in particular a really hard-hitting educational consultant; a friend of mine who works for IDEO, and whose an expert in user interface which is going to be really useful going forward as we develop the content for multi-platform—not just web but also iPad and whatever else; someone whose an expert in online learning, and then the head of the board who was a former president of Toys R Us and who has just an incredible amount of executive experience that is really going to benefit Mathalicious—not only executive experience but he is also the most positive Scotsman I've ever met, and his joviality is good in and of itself. So the board of directors is coming along—couple of spots I still want to fill but I want to be diligent and conscientious about that. Last week I finished the first draft of the business plan, which was a very useful process for me to put everything on paper, to commit myself to a real strategy and timeline—and also really to consider the revenue streams. Right now we're giving content away for free, which obviously is not sustainable."

The Mathalicious case provides unique insights into what is known as 'entrepreneurial affect' — the impact of feelings and emotions on cognition. Baron (2008) posited that affect influences many aspects of cognition and behavior; that such effects may be especially likely to occur in the domain of entrepreneurship because the environments in which entrepreneurs operate are unpredictable and uncertain, and because affect influences many of the tasks entrepreneurs perform in launching new

ventures (e.g. opportunity recognition, acquiring needed resources, and the capacity to respond effectively in highly dynamic environments). The following podcast excerpt (April 14, 2010) captures Mr Logue's struggle to reconcile his personal goals with those of investors:

“Not much has happened businesswise since my last entry. I'm still refining the business plan, which I'll get to in a moment. I continue to develop content, and earlier this week Teach for America began promoting Mathalicious to all of its core members and alumni. This weekend I'm heading to San Francisco, and next weekend will attend an entrepreneurship workshop at the Stanford Business School. I'll also be meeting with various ed-related organizations including Inkling, a start-up that digitizes educational content for devices like the iPhone and the iPad. In my first conversation with them, they expressed interest in potentially incorporating Mathalicious into their fold, which would certainly facilitate the distribution model, and provide for e-learning much earlier than I'd expected, but right now I'm not sure of the details, or whether it would make sense more generally.

But indeed all of this--the business plan, marketing -- it's all just...details. Last night I watched a NOVA documentary on other galaxies. Someone forwarded me an old Carl Sagan video on earth and its relative insignificance. These are good reminders. I'm good at writing math lessons. I'm bad at a lot of things. But I'm very good at this. I approach a math lesson the way I imagine Michelangelo approached the Sistine chapel. How much did he get paid for that? Do you have any idea? Maybe he did it for free, who knows. The thing is, it exists. He is gone, but it exists. And that's what I'm really struggling with right now. In the business plan I specifically said that profit maximization was not the goal; that the mission was to influence education as far and as widely as possible, but of course once you get private investment, do you really get to make those calls?”

To retain control over the venture at this critical nascent stage, Mr Logue eschewed outside investment, taking on all of the risk himself. Having created a critical mass of content, his plan is to sell individual memberships directly to teachers in the fall of 2011, with the expectation that they'll pass the resource up the food chain. This strategy avoids the need for a large sales staff, allows Mathalicious to get to market more quickly, and positions Mathalicious as a “for teachers, by teachers” company. And by prioritizing teachers over districts, Mathalicious can keep its offerings lean and avoid bloating the service with materials that districts may require but teachers won't use (e.g. assessments, evaluation systems, etc.). Mathalicious is pursuing a “pay what you think is fair” model, offering four choices ranging from \$5-\$20/month. The idea is to remove the barriers to adoption and make it easier for teachers to implement Mathalicious in their classrooms. Importantly, this is also consistent with Mr Logue's values.

Part B of this case will track the execution of the subscription model.

Amandla Awethu Africa, Inc.

Despite the fact that 75 per cent of the world's poor live in rural areas, only 4 per cent of official development aid goes to this sector. Bolstering agricultural production is integral to any poverty reduction strategy, especially in the face of impending climate change impacts (Brainard *et al.* 2009). Amandla Awethu Africa (named after the rallying cry of the South African freedom fighters) is a nascent social enterprise pioneering a new approach to African agricultural and community development. In January 2010 co-founder Daniel Isner summarized their philosophy thus:

“Long-term success is dependent on numerous factors. The most important of which is the willingness of people to trust each other and work together. Cooperative industry is in many ways a revolutionary step forward. Our holistic, grassroots approach strives to prioritize our initiatives in phases to ensure that the needs of the community are being addressed. Continual dialogue with community leaders and youth is essential to our success. Simply providing an institute to mentor

and encourage sustainable growing practices, alone, will not be able to empower a community. Projects must be economically viable, communities must benefit directly, families will have to be encouraged to engage in its development, and foreign volunteers must respect and understand the needs and desires of the community. With this as our foundation, Amandla Awethu Africa has begun the process to build the Crimson Dawn Center in Ghana.”

Two MBA student teams were initially assigned to this project; one researched web-based non-profit fundraising strategies, and the other best practices in organic agriculture — drawing on case studies from Tanzania, Ethiopia and other African nations. As the following statement from a participating Ghanaian student shows, the experience helped develop many of the ‘soft skills’ that critics say need to be addressed in the business curriculum.

"I really had a unique experience when working with Amandla Awethu. In the beginning the project seemed impossible and difficult to complete. During this project I learnt a lot about my own country's agriculture, its problems concerning sustainable agriculture and the problems posed by policies made by a government not completely informed about the impact of the policy. I learned to work in a group setting where accountability was shared evenly. Working with Coumba was sometimes difficult when we could not come to an agreement, but it was more than fun to work with her in a team setting. I learned the importance of support and communication when starting any project. I also learnt that in any process or any activity, in order for it to be successful it must first begin with little steps taken by all who are involved in the process. I figured out that marketing is not only selling products; it can be the selling of ideas, and also that not all forms of marketing are for profit (case in point – Amandla Awethu). The workload of the project itself taught me about prioritizing, organizing, responsibility and the importance of setting your own deadlines. I have come out of this class with a feeling of accomplishment and success. Now I know how to research, organize and present my own ideas."

Periodic Skype sessions were held with Mr Isner to review progress. Knowledge of what works and doesn't work helped him define benchmark criteria with which to evaluate potential sites for the Crimson Dawn Center. Unfortunately, the intended site did not tick all the boxes. As Mr Isner later wrote:

“Formally, we had focused our efforts on acquiring land in Amfaso, Eastern Region. Due to complicated familial issues regarding the proposed project site, we've made the decision to go back to the drawing board and conduct project feasibility studies in other areas. Since coming to Ghana, I have learned that familial disagreements regarding land ownership determine the complexity of land acquisition. For example, when a grandfather or family head passes away, there are often quarrels between surviving family members on land rights and borders. Such was the case in Amfaso. Unfortunately, these kinds of challenges are by no means uncommon in Ghana. So, as mentioned, we are currently looking at all our options.”

For several weeks he toured Western Ghana, investigating potential farm sites and producing video reports from the field. By May 2010, when the organization received 501(c)(3) status from the IRS, it still had no African base of operations. Mr Isner's experience in Ghana reiterates Lane & Maxfield's point that to succeed, and even survive in the face of rapid structural change, it is essential to make sense out of what is happening and to act on the basis of that understanding. The difficulty is that ‘populating the world’ cannot be done except by engaging with it, which takes considerable time and effort — and risk. Having come up empty-handed (and with several bouts of malaria to boot), Mr Isner was at the end of his rope. Then, quite unexpectedly, his luck changed. During a trip to Togo to renew his visa, he met a member of a nascent farming cooperative in Burkina Faso called ADM (the Association for the Discovery of Manna), located in the village of Kindi Kombou, home to the Gurmantche people. Their chief had already given his blessing to ADM, donating 50+ acres to the fledgling enterprise. Mr Isner met with him

to explore how Amandla Africa could assist in the effort. At the same time, he was mindful of two lessons he'd learned from his trials in Ghana. First, every community is different, and therefore, a 'one size fits all' philosophy won't work. Second, it is fatal to make promises one cannot keep. So when the chief asked what kind of commitment Amandla could make to ADM, Mr Isner promised merely "to return." Evidently the chief thought this wise, and the door was opened. Amanda Africa has since dispersed 30 microloans to member farmers of ADM -- its first foray into micro lending.

Through ADM, Mr Isner was introduced to another fledgling cooperative south of the capitol of Ouagadougou, in the village of Bissiri. What the people of Bissiri had done that was unique was build a grain storage facility, thus breaking the cycle of paying middlemen exorbitant sums for seed every year. And with support from one local NGO, they also built a health clinic and established educational programs to tackle the 80 per cent illiteracy problem. Amandla's role is to develop a sustainable agricultural cooperative model from the ground up, focusing initially on the cultivation of the Moringa plant. Originally from the Himalayas, Moringa is highly nutritious plant rich in proteins, amino acids, beta-carotene, and various phenolics and vitamins that is being farmed intensively in over 80 countries.

Amandla envisaged a full spectrum farming, drying, milling, packaging, marketing, distribution and sales operation, targeting African, European and North American markets. Field trials are under way. Students assigned to this project were charged with identifying best practices in Moringa farming, and developing an international marketing strategy. Their big breakthrough was to make contact with Jim Fitzpatrick of Moringa Source, an established grower in Nicaragua. His advice was to harvest Moringa oil for the US market, since it is easier to transport, easier/cheaper to produce, easier to export (fewer regulation/permits/phytosanitary requirements, etc.) and commands a higher price at retail than Moringa powder. Moringa Source has expressed an interest in managing Amanda's US distribution.

Part A of this case addresses the founding of Amandla and its early forays in Ghana. Part B (in progress) tracks the evolution of the Moringa project, within its unique social, economic and political context. While Burkina Faso has been spared the conflicts and upheavals seen in many neighboring countries, at the time of writing (March 2011), soldiers are violently protesting over the arrest of a colleague, according to Reuters.

DISCUSSION

The pilot test showed support for de Meyer's observation that what managers need to know is in constant flux because the problems that confront their organizations are constantly changing, as well as Mitroff and Silver's observation that managers do not deal with discrete, well-defined problems but interrelated messes. It also confirmed Lane & Maxfield's contention that in complex environments, strategy is not something that is 'set' *a priori*, but emerges from agent interactions. What is particularly striking is the way in which the organizations change — structurally as well as strategically — in response to new imperatives. If a more dynamic picture is in fact emerging, we may need new theories and methods to understand this apparent 'plasticity.' Yet clearly, not all is in flux. The one constant is an organization's mission and guiding values, which have a very real bearing on day-to-day, as well as strategic decision-making. When these are brought into doubt, the repercussions can be far reaching. In our wave energy case, for instance, it led to the splitting of the company into two separate entities.

Lane & Maxfield's central premise is that uncertainty can be managed to our advantage. Yet this only seems true up to a point. *Agency* — the sustained, self-conscious, and goal-oriented way in which we work, say, at building an enterprise — only tells part of the story. Beyond this lies a field of human action and interaction that is largely beyond human comprehension and control — as Mr Isner discovered in his quest to establish a base of operations in Ghana. The important, if sobering, lesson is that freedom may be exercised in some domains, but not in others. That is, though we act in relation to others and the world, we are to the same extent acted upon (Jackson, 2007). While our case studies contain powerful role models that may inspire students to make a difference, they also contain salutary lessons, such as not to delude ourselves about the extent to which we can control our own destinies.

The pilot raised two critical questions that have been overlooked by the old case method. The first is

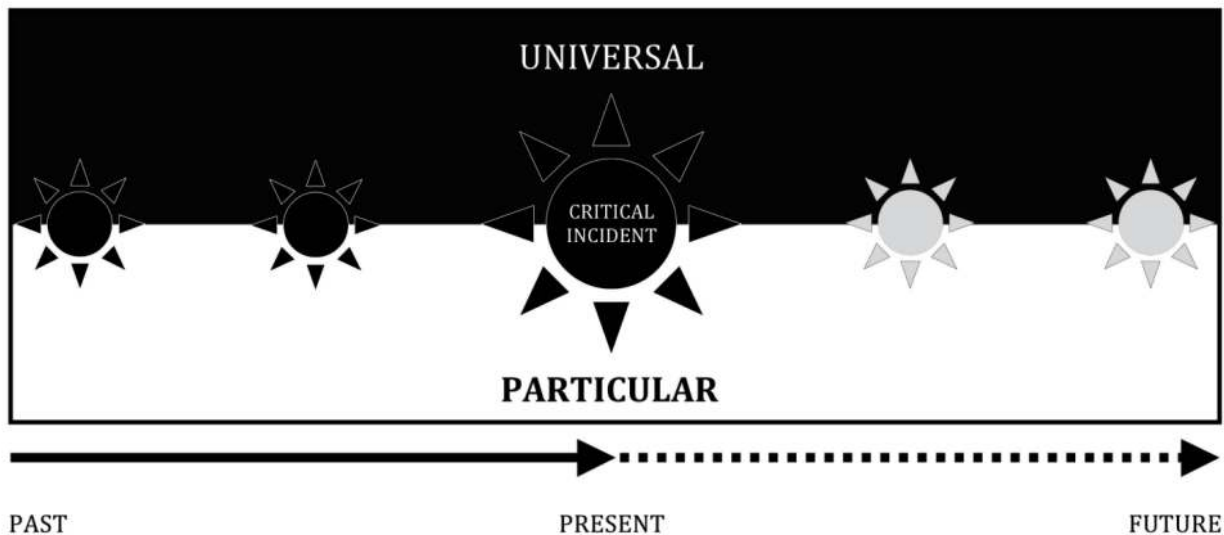
how something new is brought into being in spite of this perplexing indeterminacy between ourselves and the external world. This is the ontology of *becoming* explored by the process philosophers, notably William James. In his words: “The truth of an idea is not a stagnant property inherent in it. Truth *happens* to an idea. It *becomes* true, is *made* true by events. Its verity is in fact an event, a process: the process namely of its verifying itself, its *verification*. Its validity is the process of its *valid-ation*.” (James, 1978, p.97). By illuminating how this process plays out, we may gain deeper insights into why ventures succeed or fail. The second question is what happens to the decision-makers themselves along the way. How do they deal with the plethora of competing interests, influences and persuasions? How do they adapt when they find their intentions confounded by unpredictable events -- what Nassim Taleb calls “black swans”? And, how are decision-makers changed personally by their experiences? In other words, we should be as concerned with the struggle itself – seen through the eyes of practitioners -- as we are with divining causes and consequences.

Henry Mintzberg and other outspoken critics of business education have said that the main cause of the MBA’s decline is the pursuit of rigor at the expense of relevance. But ours is the opposite challenge: how to stay relevant without sacrificing rigor. The first requirement is to agree on what we should be observing. After all, facts are not just waiting to be picked up; it is theory or expectation that guides perception and hence observation (Webb, 1995). Here, the insights of Isaiah Berlin, the eminent historian of ideas, are particularly instructive. Berlin held that all social phenomena can be understood on at least two levels: “an upper, public, illuminated, easily noticed, clearly describable surface from which similarities are capable of being profitably abstracted and condensed into laws;” and below this: “a path into less and less obvious yet more and more intimate and pervasive characteristics, too closely mixed with feelings and activities to be easily distinguishable from them” (Berlin, 1996, p.22). At the upper level, the goal is to identify general principles and patterns, whereas at the lower level, the goal is the opposite. Here, the aim is to draw out what is specific and unique in a given character or series of events, so we are able to grasp a situation in its ‘concreteness’; that is: “as it occurred at the particular time, in the particular place, as a result of the particular antecedents, in the framework of the particular events in which it and it alone occurred — the respects in which it differs from everything which has occurred before or is likely to occur after it” (ibid, p.22). Indeed, Berlin held that what ultimately makes us foolish or wise is this very ability to discern individual differences.

Academic business research and business case studies seem at times to inhabit different universes. Whereas the former is concerned mainly with inducing generalizable principles, the latter (beginning with Donham) has been mainly concerned with analyzing the particulars of a situation. Consequently, we have overlooked what Jackson (2007) calls the ‘paradox of plurality.’ What defines the human condition — and by extension any human enterprise — is that everyone and everything is *both* identical and different. What we should be striving for in our cases, then, is an understanding of life at both levels, by seeking the universal in the particular, while also doing justice to the specific, idiosyncratic contexts in which the universal is lived. The value of this dual approach was demonstrated in the WECCA case, with veteran CEO Brian Cunningham habitually inducing general business principles from specific business situations.

This idea is formalized in Figure 4, which reconceptualizes the case study as a series of critical incidents — past, present and anticipated. A critical incident might include a major ‘pivot point’ such as the formulation of a new business model (Plan A...Plan N), a competitive or government policy shift, a strategic or tactical response, or merely a mental shift. In other words, anything with something at stake for the agent(s) involved. Each critical incident is unique, yet may also have generalizable properties. We can never grasp *all* the variables at play in any given situation, let alone the repercussions that may follow from any given action. But we can capture the essence of what is happening, and transform these events and experiences into universal forms that may be shared so that others may learn.

FIGURE 4
CASE STUDY RECONCEPTUALIZATION



In early 2011 we began a second pilot test with the goal of finding a practical way to operationalize Figure 4. Our case study is Concert Window (concertwindow.com); a relatively new venture founded by Forrest O'Connor and Dan Guerney, two Harvard graduates. They recognized that in an era of plummeting music sales and rampant digital piracy, the music industry had to leverage the energy of live concerts in order to survive. Concert Window helps musicians and venues by streaming their performances over the Internet and advertising their music and merchandise.

During each Case 3.0 interview, the founders compare what they intended ('Plans') with what actually happened ('Outcomes'), describing critical incidents along the way. They are then asked to draw out the relevant lessons ('Principles') from which tomorrow's entrepreneurs can learn. Approximately 4-5 so-called 'POP' sessions each year are probably sufficient for case building purposes, without putting onerous demands on practitioners. Interviews are augmented with relevant archived materials, such as a series of emails documenting Concert Window's transition from Plan A (a multidimensional music video) to Plan B (subscription or pay-per-view business model) to Plan C (free video delivery supported by sponsorships). The process has produced a series of insightful principles, including the three listed below:

Openness to ideas: Consider everything – every idea that comes your way. When you are generating so many ideas yourself, it's easy to dismiss those of others. However, what may at first seem way off base may turn out to be fruitful -- offering the content free being one example. Another was Dan's idea to place the concert window smack in the center of the webpage, which Forrest initially resisted, having had a different conception of how the site should be organized. It may take some extra thought to consider each new idea, but it's definitely worth it.

Networking: Make the effort to meet as many people as possible and learn as much as you can from them – even people who are only tangentially connected to your industry or the idea you are working on. In some cases meetings lead to no material progress, but there is always feedback of some kind that sticks with you. This may take the form of questions, ideas or leads, but also simply validation. For example, the head of digital media initiatives at Bowery Presents (which oversees Radio City Music Hall) said that countless other outfits had approached him, but that with its live web streaming, Concert Window was doing something truly unique. Through networking you also become much better at explaining what you

are doing, and answering tough questions. This is important when speaking with industry experts, such as the people who run video tours for major bands like Van Halen.

Staying positive: There are so many ups and downs, so just try to generate as much momentum as you can from the up moments. One day you might be approached by three interested venues, then the next day run into a legal snag that might sink you. There are always ways around problems, even if it demands a change in strategy.

Our hope is that the simple POP framework, by enabling equivalency between cases, will open up brand new opportunities for theory building. Finally, while the focus of this paper has been on classroom-based learning, the approach may also open up new possibilities for professional learning. According to Boud *et al.* (1985, p.19): "Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it. It is this working with experience that is important in learning." By encouraging active reflection by the practitioner, we may enhance their capacity to learn, even survive. Participants have said that producing content has helped them see things more objectively, rekindle their sense of purpose and mission, and plan the next leg of their journey. Whether these activities actually lead to better outcomes is another matter, and one worthy of further research.

CONCLUSION

The philosopher Imre Lakatos' criterion of 'fruitfulness' holds that our theories should not only be judged according to where they have been and what they have explained, but also in terms of where they are going and what they are stimulating (Webb, 1995). If the overriding goal is to produce a new generation of decision makers who are truly 'future agile' (Horwicz, 2010), then the case method as currently practiced seems unequal to the challenge. This paper identified ten problem areas, of which five are concerned with the temporal and spatial boundaries of the case study (problem definition, meaning of strategy, decision horizon, geographic scope, industry/sector scope); one with the method of case production (research methodology); one with case delivery (technology platform); and, three with the learning process itself (mode of reasoning, theoretical content, experiential content). With a change of theoretical framework, and a corresponding change of methodology — one that is longitudinal rather than cross-sectional, favors real-time content generation over retrospective storytelling, and goes beyond specifics to draw out and explore general principles — we may begin to build a foundation for a new and better case method. This is the quest of Case 3.0, a nascent social enterprise building a portfolio of macro (industry level) cases and micro (organizational level) cases, along with a web-based platform to enable their distribution, analysis and discussion. The Case 3.0 concept rests on several core principles: *reciprocation* (entrepreneurs generate case content in exchange for actionable research and fresh insights into pressing problems); *realism* (students gain a deeper, more granular understanding of how problems are formed, decisions are made and business models and organizations evolve); *integration* (knowledge and media are combined in new and meaningful ways); *dynamism* (digitization enables regular case updates to maintain relevance); *interactivity* (software tools open up more possibilities for analysis and discussion); *equivalency* (the quest for universals adds value); and, *social action* (more than a pedagogy, the case method may also serve as a catalyst for building entrepreneurial capacity in the real world). A pilot test conducted in 2010 led to a reconceptualization of the case study, along with a proposed framework for data collection called 'POP' (Plans-Outcomes-Principles). POP is the focus of a second pilot test.

ENDNOTES

¹ The sustainability movement, for example, is fundamentally about transcending the old trade-offs between shareholder value, environmental protection and social welfare.

² The concept of abduction was conceived by the pragmatist Charles Sanders Peirce, who also coined the term ‘scientific method.’ For Peirce, abduction, deduction, and induction constituted three phases of the methodology of science, where abduction generates hypotheses (Stanford Encyclopedia of Philosophy).

³ The Case 3.0 concept was introduced at the annual Satter Conference on Social Entrepreneurship, held at the Stern School of Business, New York University in November 2009. Preliminary results of the pilot test were presented at the ISCB Annual Conference in June 2010.

⁴ A pilot template was built by Tom Peitler and Jim Blanks of Calibre Systems Inc, a management and technology services company. Tom Peitler (MIS manager at Calibre Systems) was a member of an MBA student team assigned to the WECCA case.

⁵ Sophisticated tools are already being developed to improve online educational outcomes. Harvard Law School’s H2O project, for example, incorporates an innovative approach to online discussion that encourages more measured and thoughtful discourse. <http://h2o.law.harvard.edu/>

⁶ Artifacts such as WECCA’s business plan and articles of incorporation and Energia’s Letter of Intent add realism and authenticity to case studies and impart valuable commercial knowledge.

⁷ By definition, complex foresight horizons confound attempts at prediction. Nevertheless, there is almost no aspect of adult human life that is not affected by some vision of the future. Humans are planning creatures in every aspect of their existence. The future is a mental space filled with expectations, hopes and fears, and with strategies and policies designed respectively to maximize or minimize them (Webb, 1995).

REFERENCES

AACSB International (2011). *Recommendations to AACSB International from the Globalization of Management Education Task Force*. Retrieved from:

<http://www.aacsb.edu/resources/globalization/publications.asp>

Arendt, H. (1982). *Lectures on Kant's Political Philosophy* Roland Beiner (Ed.). Chicago, IL: University of Chicago Press.

Argyris, C. (1980). Some Limitations of the Case Method: Experiences in a Management Development Program. *Academy of Management Review*, 5 (2), 291-298.

Aspen Institute (2009). *Beyond grey pinstripes 2007-2008*. Retrieved from:

http://www.beyondgreypinstripes.org/rankings/bgp_2007_2008.pdf

Baron, R.A. (2008). The Role of Affect in the Entrepreneurial Process. *Academy of Management Review*, 33 (2), 328–340.

Boud, D., Keogh, R. & Walker, D. (1985). *Reflection: Turning Experience into Learning*. London, UK: Croom Helm.

Brainard, L., Jones, A., & Purvis, N. (2009). *Climate Change and Global Poverty*. Washington, D.C.: Brookings Institution Press.

Bukszar, E. & Connolly, T. (1988). Hindsight Bias and Strategic Choice: Some Problems in Learning From Experience. *Academy of Management Journal*, 31, 628-641.

Carey, A. (2010, February 22). Engage with the desert and the marketplace. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/bdee1708-1f52-11df-9584-00144feab49a.html#axzz1BKGb5tqd>

Darroch, J. (2010). *Marketing Through Turbulent Times*. London, UK: Palgrave MacMillan.

De Meyer, A. (2010, May 24). Schools must learn to tear down their walls. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/fcda2406-66ca-11df-aeb1-00144feab49a.html#axzz1BKGb5tqd>

Ellet, W. (2007). *The Case Study Handbook*. Boston, MA: Harvard Business School Press.

Fischhoff, B. (1982). For those Condemned to Study the Past: Reflections on Historical Judgment. In D. Kahneman, P. Slovic, & A. Tversky (Eds.), *Judgment Under Uncertainty: Heuristics and Biases*. New York: Cambridge University Press.

Garvin, D. A. (2003). Making the Case: Professional Education for the World of Practice. *Harvard Magazine*, 106 (1), 56-107.

Gladwin, T. & Berdish, D. (2010, February 8). MBAs unprepared for a morally complex future. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/df5c80e2-1452-11df-8847-00144feab49a.html#axzz1BKGb5tqd>

Horwitz, F. (2010). Transforming the Business School. *BizEd* May/June, 34-39.

Ibarra, H., Peyer, U. and Hansen, M. (2010, March 1). Want to be a Chief Executive? Get an MBA. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/2eaace4c-24d2-11df-8be0-00144feab49a.html#axzz1BKGb5tqd>

IBM (2010). *Capitalising on Creativity*. Retrieved from: <http://www-935.ibm.com/services/c-suite/series-download.html>

IBM (2010). *Working Beyond Borders*. Retrieved from: <http://www-935.ibm.com/services/c-suite/series-download.html>

Jackson, M. D. (2007). *Excursions*. Durham: Duke University Press.

Johnson, S. (2010, December 28). Accessing the e-book revolution. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/d1248de4-11f4-11e0-92d0-00144feabdc0.html#axzz1BKGb5tqd>

Lane, D. & Maxfield, R. (1996). Strategy Under Complexity: Fostering Generative Relationships. *Long Range Planning* 29 (2), 215-231.

Lohan, E. & Kirksey, W. (2011). Decentralized Wastewater Management. In S. Coyle & A. Duany (Eds.), *Sustainable and Resilient Communities: A Comprehensive Action Plan for Towns, Cities, and Regions* (227-238). Hoboken, NJ: John Wiley & Sons, Inc.

Makridakis, S., Hogarth, R. & Gaba, A. (2009, July 6). An Illusion of Control Can Have Hidden Costs. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/33b6c8b2-69c4-11de-bc9f-00144feabdc0.html#axzz1BKGb5tqd>

Martin, R. (2009). *The Opposable Mind*. Boston, MA: Harvard Business Press.

Mitroff, I & Silvers, A. (2010, February 1). The Problem is That It's a Much Bigger Problem. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/ea8a393a-0ed2-11df-bd79-00144feabdc0.html#axzz1BKGb5tqd>

Mullins, J. (2006). Can We Teach Entrepreneurship? *Business Strategy Review*. Winter, 13-17.

Mullins, J. & Komisar, R. (2009). *Getting to Plan B: Breaking Through to a Better Business Model*. Columbus, OH: McGraw-Hill.

Read, S., Goldsmith, H. & Egeli, P. (2009). *What Drives Case Sales?* Retrieved from: www.ecch.com/uploads/whatdrivescasesales.pdf

Schumpeter, J. (1975). *Capitalism, Socialism and Democracy*. New York, NY: Harper and Brothers (Harper Colophon edition, 1976).

Tett, G. (2010, August 5). Trading Volumes Retreat with Investor Trust. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/0/5ac2207e-a0ae-11df-badd-00144feabdc0.html#axzz1BKGb5tqd>

United Nations Global Compact Office (2010). *2010-2011 New PRME Brochure*. Retrieved from: <http://www.unprme.org/the-6-principles/index.php>

Yip, G. (2011, February 14). Business research needs to be more relevant for managers. *Financial Times*. Retrieved from: <http://www.ft.com/cms/s/2/f42b4028-35fb-11e0-b67c-00144feabdc0.html#axzz1IkbptS4x>

Webb, K. (1995). *An Introduction to Problems in The Philosophy of Social Sciences*. London, UK: Pinter.

Whitehead, A. (1967). *Science and The Modern World*. New York, NY: The Free Press.