

Mgmt 699 – BUSINESS ONTOLOGY:
Antidote to Learning to Speak, and Act Like an Idiot
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INTRODUCTION: Challenges to Business as Usual

An education in business administration, as acquired via the MBA standard, has worked rather well for many years. The results of this training have spread around the world but are beginning to run into an array of surprises and previously unknown challenges. This will most probably generate conditions that will be increasingly surprise filled, and ultimately dangerous to those who have organized their lives around business or depend on its' results. New responses will be required. New products will be needed. New forms of information and ways to organize it will be needed. New ways of behaving will be needed. Wisdom will again be in good currency. New kinds of businesspeople will be essential.

Business Ontology is organized to address this via examining the known limits of business knowledge, how to be at this edge, and how to create ways to manage the emerging consequences of past business as usual. The most dramatic consequence for business as usual will probably be going out of business. The presumptions introduced and developed in an MBA program are clearly mismatched to the needs of the present and indications of emerging conditions. Clear evidence of the need to change our presumptions has been emerging over the past three decades. The mismatch between resources, including human resources, and how we respond to human needs is growing. Concepts of hierarchy and distinctions between winners/losers, managers/workers, legal/ethical, public/private and standard/unique are being challenged.

There is a growing recognition of something basically wrong in our half-century shift from the pains of production to the gains of services; from deeply felt pride in what is being made to cynicism in what can be marketed, and from the limits in day to day operations to the rewards in minute to minute finance. Business schools seem merrily on this continuing trip, but the prognosis is dire for those involved in these developments, and those whose lives depend upon them. The course addresses these and related dichotomies in business as usual and how they call for change.

The course is not meant to be sector specific. We will draw from examples in research, product design, finance, production, customer-service and enterprise redevelopment. The course was established to examine internal contradictions in what is espoused in MBA training. If you prefer, we can expand it to include more of the business context of the MBA. This is where we can find the meaning relative to what it is all about. We will articulate and evaluate traditional definitions of business success considering challenges to their viability and veracity. The course is experimental. It is

being initiated from an early warning system that points to emerging dangers in the context of business and how business as usual exacerbates those dangers.

The MBA is mostly an American invention that has helped the US assume a lead in international¹ business management. It helped to define, frame and promulgate a particular approach, widely known as industrialization, which presumed a set of conditions that were essential to it. The focus was on production, distribution and servicing of goods designed to satisfy human needs. The ideas underlying this definition of an economic process are herein presented as an “infrastructure” for teachers teaching about business management. Most of the ideas refer to segmented functional areas of business associated with boxes on an organizational chart. A few ideas address the dilemma of the overall purpose and metrics of success but discussion about this are mostly sent off to issues of performance, productivity and profit. MBA students acquire models for problem solving via case studies² and other ritualized methods of education. The approach avoids the systemic while successfully using analytic methods to keep the twin forces of change and complexity out of sight and out of mind. As such the MBA has been a recipe for American success, and for spreading the influence of this success to many parts of the world.

The MBA works if:

- 1) Industrialization: the assumptions behind industrialization were sound, e.g., that the material and energy inputs were freely available for consumption by organized labor and capital,
- 2) Stability: the conditions of economic exchange were relatively stable, e.g., economic actors could count on the integrity of value and values over time, and
- 3) Finance: the US business culture and the currency around which it was structured provided a solid base for international trade.

Serious challenges to any of these presumptions would cast doubt on the viability of the entire system. Should this occur, creativity, innovation, and learning to learn would become essential to survival. Hanging on to the structure of what was taught and acquired via an MBA would not be helpful. Skill in seeing and managing ambiguity would replace comfort with policies and procedures of the past.

Where any of the above three assumptions come into question the MBA agenda needs adaptation. Where all three are questionable then the validity of standardized business training comes into question. In Spring, 2008 there is mounting evidence that all three presumptions are unstable. US firms are no longer seen as leaders. The US model of business operations, and the MBA that unpins its development are endangered. Industrialization, as mechanization of work and work life, seems to have been based upon unlimited and cheap energy and material resources. Evidence of asymmetries and instabilities in international business development is replacing the notion that IB will be a

¹ In this sentence “international” is used in the traditional American sense of preparing students to be missionaries to go into the world and spread the word of US business ideas. This is not the more robust sense of international as a field for expanding ideas of value, economic exchange of value and the accommodating of multicultural approaches to discerning values and doing business.

² See Business Week, February 4, 2008 for the article on why CEO’s are becoming critical of graduates trained in the case study method, and how cases fails to prepare students for situations defined by spontaneity, ambiguity and surprise.

stabilizing force in the world. And finally, the US Dollar is rapidly vanishing as a solid basis for economic exchange as its financial and psychological values decline. Those who used to trade commodities in dollars are beginning to ask for payment in Euros and similar “stronger” currencies. The US business model has long been a champion of mass production, marketing, delivery and service. Even in the US the values that allow these activities to make sense are being challenged. Customers demand customization of their goods and services, and new, innovative products that respond to a non-industrial value. These conditions pose serious challenges for any who rely on the usual US toolkit of business ideas, models, and practices.

Another means to look at the emerging situation is to look at the role of Adam Smith and his close follower Michael Porter, in defining the conditions and measures of success in business. Smith bases success on continually moving towards specialization of functions, presented by him as division of labor and by Porter as the beauty of core competence. This is based on Smith’s assumption of perfect information for management of the marketplace linked to excess space/time redundancy to take up the slack with information proved to be imperfect (always?). The contemporary thoughts of Michael Porter on Smith’s thesis, relative to attaining competitive advantage based on native resource analysis, is naïve. Those who rely on it find such thinking more of a hindrance than a guide. This is especially apparent in the instabilities associated with customers and competitors switching roles in dynamic markets without stable assumptions. There are even greater challenges to those who strive to learn to succeed in business, but that and how challenges change is for the course.

Business as Unusual

Accompanying most challenges to business as usual, including the assumptions acquired in a traditional MBA, is a long-standing attitude towards nature and its role in business success. Nature has long been presumed to provide the physical resources needed for economic development. Religious and economic precepts (from all churches, including those of capitalism and socialism) suggested nature to be a location for the resources that humans had an obligation to use. In our time this basis is being seriously questioned where the questions are making their way into business decisions. Nature now provides the basis for a reality where partial actions link to form systemic reality. Nature is moving to center stage as the spoiler to traditional human approaches to reality management and providing the evidence as to why the analytic process is deeply flawed. A more systemic approach to business and business education is needed. Where do we look to find, or invent, this approach?

Tradition business finds it difficult to survive. Customers and competitors often trade roles, processes and products that are essentially against nature are suddenly donning green clothes to appear relevant, and local firms that distrust foreigners find them essential to their business. The emerging conclusion seems to be that the US model of enterprise development is no longer the main model, or perhaps even the best. As such, US firms are in a period of paradox. They clearly sense a need to change, yet they remain seduced by their self-importance as they bask in the warm afterglow of success. Arrogance attracts ignorance while knowing impedes learning.

The urgent need to upgrade learning in business systems can easily be seen in the evolution of MBA business-speak, and how it has been developed to support CEO-speak. Traditional CEO-speak, never admitting a mistake nor seeing an unsolvable problem, is typified by a response in a 2003 interview of the chief of US operations of a major US auto company. He had been asked why they continue to produce inefficient products: “We produce what the US customers want and the government shouldn’t interfere by mandating higher fuel mileage standards.” The follow-up question dealt with why customers were not buying the vehicles on dealer parking lots? He responded: “That’s another subject, we don’t connect the two.”³ It would seem that the two need connection.

CEO’s are taught to never see the negative consequences of achieving the results they strategically aimed for. In the short term they are taught to make use of the analytic to hide the workings of the systemic. In the longer term they can move to another strategic venture in another company. Clearly, this is not helping the reputation and results of the business systems we all depend upon. Just as clearly, we need to return to the innovation pool and find better ways, but where is innovation located and how do we differentiate its promises for success from the swamps that seem pool like?

Innovation is accepted as critical but what is it and where can it be found, and who can be trusted to define it? Strong evidence points out that there isn’t much innovation in major government research labs, the Bureau of Economic Analysis, the Department of Commerce or SBA data banks. It is equally as absent from major corporate research labs that were established to rationalize the yet to attained assembly-line form of creativity. All these research efforts seem to have been subsumed by the Faustian Bargain⁴ In many instances the product research function was centralized and placed in marketing, under the watchful eye of legal. The result has completed a larger phenomenon of shifting away from design and production of goods and towards the servicing of what is produced by others. University research groups are not much better in finding the innovation pool. For reasons of survival, in the short term, or our of frustration, because “everyone is doing it,” they have shifted from peer reviewed, passionately driven faculty, idea projects towards projects justified as local use of “Federal Pork.” Most of these are lobbyist induced ideas on how to use badly formed dissertations to meet some tangential local need. This returns us to the dilemma of MBA training and those who do it.⁵

We have a significant problem of what gets defined as business school research. A recent AACSB report on it is quite negative about the world of business faculty research work. Management research is mostly non-funded research. It is often report writing pretending to be the research it claims to report on. Prior research by Russell Ackoff of Wharton illustrated that articles in the top management journals are read by an

³ This comes from a Congressional Committee interview with the Executive in May, 2003, titled: “Investments in Federal Facilities: Asset Management Strategies for the 21st Century,” National Research Councils, Washington, D.C., 2004. (interview organized by David Hawk)

⁴ Best described by Goethe as the selling off of the long term, e.g., the soul, for a short-term gain, e.g., money or power, since the soul in question may actually exist, and we won’t be around in the long-term, and beside those technology people will invent a way to overcome the consequences of problems we send to the future.

⁵ To pursue this point you might look into the bio-tech industry and its expenditure of research funds in US firms. In Spring, 2006 Business Week did a number of articles on where the two hundred billion went and why it was badly invested.

average of six people including the editor, two reviewers, hopefully the author, and two unsuspecting PhD candidates working on their own papers. The AACSB report points out why we urgently need to make business research more relevant.

To respond to shortcoming in research and its results we might first investigate what research is and does. Let us presume that each person has considerable talent and potential to rethink and reshape who they are, what they think about and value, and how to achieve what they want. On the other hand, they may not be motivated to worry about any of this, might be so closely aligned with cultural truths that they dare not question anything outside that system of beliefs, or simply have given up on the species. To progress we need to find a way between these two worlds and arrive at a working definition of the inventive mind that lies behind innovation. Armed with this resource we can reconsider and reinvent the enterprises that we have placed at the center of economic well-being.

This may seem too challenging or the risk of uncertainty in what is on the other side to great but to not try seems more dangerous. Risk taking is the key to many human activities, and to human quality of life⁶, not just essential to those who wish to innovate. About the other thing that seems certain is that “business as usual” now fails to serve us, as government as usual failed us in past decades. Change is now omnipresent to our social and personal psyche and must be addressed. It seems time to move on to experimenting with actions that more clearly demonstrate the exciting and necessary possibilities that lie on the other side of the edge. In the words of the late Don Schon, change is “... an idea in good currency, whose time has arrived.”⁷

A REINTRODUCTION: How to Challenge the Limits of Business as Reason

Our business models significant need to be upgraded to fit current and emerging conditions. Ten years ago the call was to find the proverbial entrepreneurial spirit, but when we got close to it we simply discovered it to contain little more than all the strengths and weaknesses of the human psyche. We then expected our business leaders to become proactive. Once we found that “having lost sight of our objective we redoubled our efforts” was failure on a higher level we recently have turned to a call for innovation, as outlined above. Until there is a more basic change in the discourse on to where we should go there is little probable success in innovatively getting there. EMBA students are at the forefront of seeing this dilemma. As they learn about successfully managing functional categories in a stable environment on weekends, they face the dictates of mess management during their day, and night, jobs. Normal MBA students can be a bit more optimistic about their futures.

Business innovation will arise from new knowledge and methods for preparing today’s business students to be leaders in responding to tomorrow’s surprises. Chances are that these will result from two sources: heretics to the US business system or thinkers

⁶ An especially interesting book on this point is “The Mirage of Health,” by Rene Dubos, 1959. He argues that quality of life correlates directly with risk taking but that presuming the opposite will significantly harm issues associated with health care and its delivery in society.

⁷ Don Schon, “Beyond the Stable State,” 1971.

in the business systems of other countries. Behind this course is a hope that change can arise from people like you, although early feedback from one of the prior versions of this course point out that this might not work. Let us see how it goes the third and last time this course will be given. Perhaps we need some rude experience from our economic systems to see the light. Or, perhaps, we need to perceive that it is too late before we respond to demonstrate that it is not. Regardless, what is the intent of the MBA and how do you rationalize its content?

Graduates of an MBA program are not trained to be experts in sociology, math, science, philosophy, languages and economics but to acquire a sufficient dose of each so that they might weave together aspects of each into a fabric that could be relevant to a given situation. Judgment is more important than decision-making. An MBA graduate from a good school can ordinarily make judgments that are reassuring. Courses in lesser schools, on decision analysis and OR, generally end in graduates not being able to use the methods but to hire consultants that are experts in the subjects that mainly demonstrate why their expertise is essential. This is like hiring a law firm to see if you might need a lawyer to help with a problem. In some instances, the skill sets are impressive, but as in cases they have little to do with a unique problem being faced in real time. Studies illustrate that in 90% of the example's decision-makers change reality to fit the case instead of changing the method to meet the reality. Contemporary business leaders that hire MBA are no longer overly impressed with the results of this approach to creating self-fulfilling prophecies. Their criticism is that graduates lack skills in dealing with surprise, ambiguity, complexity, and contradictions. They also mention that the salary levels being requested seem more impressive than their problem-solving skill.⁸

The premise of this course of study is that while some of the blame can clearly be placed with case method pedagogy and the intellectual laziness it has encouraged in teachers and students (a bit like distance learning as it's primarily offered), the problem extends well beyond case method. Realizing this is probably the worse form of heresy, but those who matter don't worry about heresy anymore. There has been too much reverence given to the empirical over the rational, the bottom line over the top idea, and the presumption that those in charge are leaders. During the course we will try to understand why and how this has happened and why it disables business graduates that desire to be tomorrow's leaders not a manager of yesterday. They realize they must prepare to operate in unstable environments while finding differences that can make a difference.

Relying on experience (the empirical) as the basis for knowing is a nice thing, and can be fun, but it is perhaps the most inefficient means to learning known to the species. If we were immortals, then an extensive reliance on experience could make some sense. Since most of us are mortal we need to be a little more expansive and creative in our means and methods of knowing, i.e., we need to introduce learning. It is relatively easy to argue how the greatest impediment to learning is "to know." The twin sister of ignorance seems to be arrogance. This leads to the commonsense statement of some wise leaders: "Its interesting how much my vision has improved once I was pushed to my knees"; i.e.,

⁸ The February 4th, 2008 issue of Business Week reports on this issue, and how CEOs give part of the blame to the extensive reliance on the Harvard Case Method that continues to exist in business schools. There are alternatives, but they seem to require more preparation and more expansive thoughts about the context and variables that must be accommodated.

when it's too late to correct a strategy. Some MBA graduates for leading programs have whimsically suggested that they now believe the MBA stands for "Mentally Below Average" for several reasons. The sixth text for the course explains some of how this has come into popular culture. It is not only due to our current US president having been trained as an MBA. All degrees have their limitations but it seems especially urgent that we involved in the MBA process find ways to quickly recover from our adoration of it and the bias it encourages with reverence towards experience, and against the powers of reason. This course is an attempt, perhaps it is an early sign of how to meet a still ambiguous need in leadership qualities, to reunite the strengths of reason tied to experience.⁹

Conditions were once relatively stable. Then conditions became unstable, yet sufficiently continuous to be manageable via probabilities garnered from weak data. The situation no longer qualifies as a bounded condition. Not only are the instabilities significant, but they are discontinuous. Planning was difficult when it was not really needed but possible. Now that it's essential it has become impossible¹⁰. Quantitative analysis has become camouflage for ignorance. Our only certainty seems to come from seeing how tomorrow is nothing like yesterday. The challenges are expected to grow. Prior to going too close to a new recipe for management we might consider from where this challenging change arises? Was it always there just waiting to emerge, or is it something that gradually worsens as population, resource demands and human expectations grow along side communications? I would propose that another force is involved. Our growth in ambiguity and instability might well be attributed to our earlier ill-informed actions in the face of emerging instability in business environments. This notion, that today's dilemmas stem from the consequences of achieving yesterday's results is a controversial idea. Its difficult enough to act without being expected to assume responsibility for tomorrows' consequences of yesterday's actions. We need to learn to do this.

A book chapter I passed out early in the course illustrates the above relative to a now timelier business concern. It was a book chapter from twenty years ago on why the myths guiding America are facing some dangerous times. The contents arose from a widespread political debate that came from the late 1970s about the future availability of oil. The predominant argument was that there was plenty of oil but the major oil companies were manipulating the perception of its availability to raise the price in the present. I argued that sure, this argument has limited truth in that there would always be a barrel of oil, it's just that you won't be able to afford the last one. Exxon could, would and even should manipulate its price in the short term, and emphasizing concern for this only serves as a smoke screen for more important concerns. Embracing higher prices in the eighties, and even taxing oil to pay for research on alternative fuels, would have

⁹ One of the best books written in the last century on the shortcoming of inquiry and science over two thousand years was how each era selects on of the two predominant forms of knowing, reason and experience, to the discredit of the other. The authors argued that only when both were embraced could significant progress be achieved in human knowing. "Methods of Inquiry," West Churchman and Russell Ackoff, 1950.

¹⁰ This is Ozbekhan's well know "planner's dilemma." For two decades he taught this as the center piece of his corporate planning course to Wharton MBA students. The solution to it is seen in his 1974 paper, the last he ever wrote, "Towards an Emerging Methodology of Planning." This gave Wharton graduates a significant edge during the 1990s.

helped us make a transition out of oil, while we still had a lot of it. To further complicate things, we also knew then that if energy were cheaper, we would face even greater problems for the health of the planet from its expanded use. We are coming closer to finding out the consequences of limited oil and increased environmental pollution.

Anyway, these strange and depressing ideas were removed from discussion in the first half of the 1980s. In 1981 a “new American leader” rode into the scene to restore “American optimism” and restore the validity of the 19th Century business model. His advisors argued that, with a loan (an Adam Smith idea), we could throw a big party and jump start the economy. We were instructed to simply forget issues of energy and environment, and the pessimism they implied. One of his most noteworthy comments went something like: “Computer chips or potato chips? Who cares which we make, as long as we can make one.” Real American’s liked what they heard. Let the good times role. Wow, its party time.

Business development did rather well during this stage, at least until about 1986 when two difficulties became apparent: a) business expansion had relied on a \$5 trillion loan from our allies, and b) made extensive use of an enterprise model where expansion would be based on imports, and servicing them, and not concerned about goods exports and economic balance. The next five years were tough.

INTRODUCTION III: Moving Beyond Misplaced Optimism

From 2001 until 2007 we threw another version of the same economics party. The optimism of 1980 was brought back once again as the center piece of strategic formulation of economic policy. Now, twenty-eight years after the first attempt to feel good failed, we redouble our efforts after loosing sight of our direction. We, and our children, face a significant hangover from two periods of “party time.” Our current and growing \$9 trillion loan obligation, rising interest payment obligations, and international devaluation of American values is leading to escalating difficulties. US models of financial management and general business conduct are seen to pose troubles. They who argue we remain the envy of the world must not hold a passport. Adding this to the steadily growing difficulties in selling US designed and produced goods and services to an unappreciative world, even with a greatly reduced currency value, poses even greater troubles. Services, where we are reportedly quite strong, are being perceived as more marketing than service. Even if the above is a significant exaggeration, and I hope it is so, we have some great challenges. The American tradition of business, the one we have come to know and revere, and that we inculcate via our teachings in schools and churches, is clearly endangered. New models are needed.

As suggestion before, MBA graduates were placed on pedestals in the late 1950s, but by the mid-1970s serious cracks developed in their responses to serious challenges. Surprise and uncertainty associated with such items as energy limits, environmental dislocations and consumer anger surfaced. Management responded quite badly. Detroit built larger autos, GE built larger top loading washing machines, and the military tried to market its winning of a losing war. All these mistakes were helped via

operations models designed by the “best and brightest” management thinkers. Finally, the challenges were put on a lay away plan and labeled as “contingencies.” We would pick them up later when our OR methods had been “upgraded” to accommodate more varied multivariate analysis that could clarify the causal relations. The leader of OR model development left the field at this time in some disgust. He moved his educational program, at the Wharton School, on to preparation for mess management. While his school soon became ranked as the best management school, the reasons went largely unnoticed by general management education. When mainstream schools finally softened their dependency on OR they move into teaching strategic thinking, which would eventually become an even larger problem for business schools and their graduates.

In 2000 the situation of management was dire. Some of the leading educational programs responded with attempts at innovation, but mainstream programs simply lowered their heads, and their admissions requirements, and waited for the return of their “customers.” Customers did return in 2005, but now armed with higher expectations and lower tolerance for the irrelevant. Business school deans were asking what is happening here? Just as we find a way to respond to one set of impossible challenges an even more impossible set pops up. I have argued that it might be that our responses to solving the earlier difficulties ends up creating even greater future difficulties, etc. This is obviously not a popular stand to take. I was recently kicked out of an Oxford book writing project on the future of management for writing a chapter on my thesis.

Clearly, the traditional MBA training abhors surprise. Its coursework is organized to avoid, or ignore, difficult contextual issues and “outliers.” To me, this pathway teaches arrogance and assures ignorance. This may be the larger problem looming for US business. At some point the A in the MBA needs to be replaced. Perhaps it can be with something more relevant and accommodating of our dynamic and discontinuous realities. Alternatives might be: Innovation, Design, Intelligence, Survival, Sustainability, Relations, Excitement, Sex or simply Fun. (These last two are for those that liked the first two parties that our economy threw and sort of feel good about what they learned about the parties held during the decline of Rome.)

Gaps have clearly appeared in the fabric of business, especially at the international dimension. Those who do not yet see or feel this might look at the virtual desperation underway in leading MBA programs to find alternatives to training their students in functional areas, while urgently trying to pretend an international set of courses that go beyond training missionaries. As such, these schools these programs work to at least graded their focus from memorizing structures to confronting the role of improved judgment skills. While a credible international business program has yet to be designed within a US business school, there are encouraging signs that some deans of leading schools see a need for one. With significant changes in the human fabric, and its conditions of survival, less insulation is now found between cultures, growing economic, national, and religious intolerance and an emerging awareness of resource limits. The foundation of business methods, models, myths, and ideals are being challenges and changed.

Business operations, that needed to navigate through troubled waters face a growing array of difficulties associated with changing attitudes, desires, limits on resources, rapid emergence of unforeseen technologies and infrastructures that divide as well as connect. We need to rise above our simplistic, feel-good thinking. For example,

we might learn to presume that by “convergence” we should mean “divergence.” When we hear about a “failure to communicate,” mostly from relatively low IQ HR people, we are better served to presume that there was perfect communication and that there were real reasons for why individuals pretended to not understand; e.g., because what was being said was another episode in strategic lying. Negotiating with the truth can sometimes be a refreshing exercise for an organization. The results might turn out a bit like an enema, but the longer-term consequences offer hope.

Perhaps the best means to manage complexity is with truth, but then again there appear serious threats to the traditions of management. Just as the models of control that were replaced by models of management and are now as insufficient to the needs of their time as methods of control became during feudal times, we need to upgrade the stakes. What do we mean by upgrade? Where will we look to find the myths, metaphors, models, and measures that are more robust to our time? How do we locate an idea that motivates us to rise above the limits of current business knowledge? How do we see that this is even necessary for our survival as a species? Why would we even care?

Another way to see this is to investigate the economic theory that you should not learn from your studies in school and experiences as a citizen. There was a metaphysical acceptance of the importance of the economic argument between Karl Marx and Adam Smith. Most did not notice that the argument was becoming vacuous by the 1990s, and by the 21st Century it is simply a curiosity. While it is still a viable basis to go to war, it in fact is mostly a solution in search of a problem that cares. Alternative economic ideas, arguments, agendas, and requirements have been surfacing for some time in most parts of the world. The world was no longer centered on American business. Part of the esteem for the US way of business, and living, was endangered by arguing for others to protect human rights while we accepted torture upon those who would threaten our defense of human rights. It is a bit like the spouse who is 100% faithful, except for once or twice. Quite simply we need to see how many traditionally disconnected topics are finding a way to be connected. Then, we need to be a little less constipated about our responses to the resultant complexities. The platform for socio-economic ideas and ideals, the raw material of business, has been transformed. The role of the business enterprise now needs to be changed. Based on this, we can clearly see how the need for a standardized, accredited MBA curricula is now seriously not needed. New business truths, values, ideas, ideals, and motivations are needed. From where will they come?

INNOVATION: Passionately doing What isn't Allowed

Innovation in organizational design has become as critical to success as product design and innovation were last year. To manage this complexity, we need to see what is similar and what is different amongst these changes. Such is in need of discourse. To begin the discourse, we need to accept that structure and form will only get in the way, just as hierarchy has long stood in the way of improvement. In simpler terms this means that we need to get over the weak democratic argument that if people can vote the results will be ok. Instead of allowing people (employees) to vote on alternatives we need to allow people (employees) to design the alternatives on which voting can take place, although when this is used voting is mostly beside the point. During the discourse phase the most exciting alternative becomes rather obvious. The contents of this course are an attempt to

open up the above subjects and do so in a way that allows helpful glimpses of emerging conditions as well as insights into how best to embrace them.

While only the smell of long dead fantasies about control linger, the principles of management are now mostly dead. I use the term negotiation as the alternative approach to building and developing an enterprise. If you have a better term, please propose it. The important issue is that this alternative to management will change everything we do in an MBA program. For example, the refuge for those who studied organizational behavior in their PhDs, and were embarrassed about it, has been flight to subjects like institutional finance, R&D management, and management of technology. As this idea never became useful for a company, which is a good measure of an idea, we might instead consider the challenges of the “technology of management” instead of the “management of technology.” Technology of management, conceived by executives I work with, is consistent with replacement of the traditional manager. While it might seem to threaten your job it in fact can make you more valuable and knowledgeable. I would hope that such issues can be raised and explored in the course discussions and in your projects for this course. The Management of Technology distinction is in fact a bit trivial, but it is the label you will have placed on your diploma and thus you might want to practice in giving some appropriate responses to questions you will undoubtedly receive about “what does it mean?”

INNOVATION AS AN OUTCOME OF THE ONTOLOGICAL ENTERPRISE

As we will discuss in class there is a fundamental difference between non-problems, that you invest a lot of your time in, and problems that are susceptible to logic and science. In addition, we will go into the significance of why a contradiction is more powerfully connected to the natural underpinnings of existence in artificially circumscribed and defined problems. Finally, we will confront the area of dilemmas, where the faint of heart should not go. Leaders who deal in dilemmas face the ultimate human challenge: how to keep multiple, contradictory thoughts in your thoughts while being able to function and even smile.

Next in the course we will confront the essence of the dilemma construct as it lets us see the significance of first the “planners dilemma,” then the “general manager’s” dilemma and ultimately the “governors dilemma.” Underlying all these will be the wisdom of how to escape from the “Prisoner’s Dilemma,” “Heisenberg’s Uncertainty Principle,” “non-entropic product design,” and the “Faustian Tragedy.” The nature and recent importance of the planner’s dilemma can be seen in the syllabi for most college courses. A syllabus, as a course plan, was a good idea in 19th Century educational forms. By the 20th Century it became something of a legal contract between instructor and student, which eroded its educational intent. By the late 20th Century it was showing signs of being a clear obstacle to learning. In the early 21st Century it is little more than a trade school pro forma for reduction of uncertainty, risk, surprise, and excitement. I’m aware that some of you complain about not having a syllabus, like having a security blanket against any surprises and unfairness, but you shouldn’t invest much in that argument. The “planners dilemma” illustrates why you do not need one, but probably

shouldn't have one. I offer this one to appease those with too little insight and too much pride.

The "ontology" term, as used herein points to a set of issues that "businesspeople" do not normally want to confront. When they arise executives turn to consultants, who dutifully report back that all is well, and it is best to avoid issues that result in headaches. As such, the language for addressing them is uncommon to an MBA course, and extremely limited. None-the-less, ontology and its supporting concepts provides one way to access the critical importance our growing need to better understand the limits of knowing, and how best to negotiate with them. Tomorrow's leaders will be those who improve their ability to see and deal with the limits to knowing, and to find better means for dealing with such limits. This will of course involve innovation, but more important is that it involves a shift from the sanctity of the core and towards improving the capabilities in working at the edge. In many respects we are at the edge of sociological and technological systems development. We can see early signs of this in our confronting the edges of ignorance in much of what we try to do. On a more serious note, it's most obvious in how we conceptualize the relations between business and systems of living order; often called natural systems. We need to do better. Hopefully, some of you will ask what better means?

Specialized means for researching and developing in companies (the R&D functions) are no longer serving organizations. They fail to tap the full extent of innovative potentials in the surprising resources found in each individual and social group. The entire enterprise of R&D needs to be rethought, and perhaps renamed. This course is to prepare you for such rethinking. The following steps begin with the notion that the greatest enemy to learning is "to know." These steps are to help you transcend the limits of knowing and enter the world of learning.

Step One: To Learn about Re-search, i.e., to search again and see for the first time.

This is essence has no relationship to the research portion of R&D as studied by academics seeking truth under the streetlamp, because they claim the light is better there, even though their keys were lost someplace else. (That is an old story. If you have not heard it ask someone.)

Research can no longer be conceived of as a secretive and separate function hidden away someplace in the woods. It must become open, interactive, and interdependent. In this way we can better see the extreme limits of what we think about and how we think. The understanding of business ontology does not arrive in the dark of a closet. With an open systems approach, we can then begin, for the first time, to see what business is. As many members of an organization as possible need to be involved, even those who silently watch others happily make foolish mistakes. Let us begin the process. All are welcome and needed.

Step Two: Acquiring conceptual tools to find the edges of knowledge, and survive while out there

- Constructs/Concepts
- Both plus more
- Unaided rationality
- Logic
- Problem types
- Planners Dilemma
- Principles of Management
- Environmental Types
- Change/Changlessness
- Etc.

Assignment one: In five pages to less, describe something you know with certainty, and something you certainly don't know. This will help you access the sense of what ontology is, and isn't.

Step Three: DL – One more time,
Back to the beginnings of management.
From this beginning does their really need to be a future.

In an online discussion raise issues about what you know management to be, and not be. The discuss can begin anyway but if you would like a beginning point, to see the point of it all, then go to the power point presentation of “principles of management.” It can be found on the davidhawk.com website under NJIT Courses, and thus under “supplement.”

The central issues are what is management, how can humans manage, what we do when we can't manage, as well as how do we build our own conceptual system that allows us to make sense of all of these concerns and issues. There is much about the history of management in the presentation.

If you decide to go shopping or to pursue some other human need during this time at least do not raise issues about what a waste of time DL is during your now famous feedback sessions with the acting dean. A casual observer might accuse you of having some ethical problems in doing such. Oh well, casual observers also have ethical lapses so do what you need to do.

Do not be afraid to be confrontational, to cause trouble in your comments. Raise serious questions and concerns. I will not be using NJIT software, thus I will have an ongoing record of all comments said from all sessions of this course. At some future time, you might be held accountable for your thoughts, or lack thereof.

The site is:

<http://gravelends.com/699/>

Step Four: Moving even deeper – 2500 years of
cultural difference between humans and how they “know”

I hope to involve a co-teacher in this stage, to appear at the next face to face meeting. Her name is Ms. Zaihong Shen. She lives in NYC and Silicon Valley. She teaches courses in Manhattan on Yin and Yang as a central concept in Chinese and Eastern philosophies since the beginning of civilization. She applies this way of understanding to: philosophy, medical practice, food, healing and more. She has a B Arch from Beijing, an MS in International Business from NJIT and an MS in Management from Purdue. She is an accomplished artist, writer, corporate consultant, and Feng Shui master. She has been interviewed extensively on CNN and CNBC business programs.

Assignment Two: In less than five pages outline what you believe a manager should be and what a leader should be, should they be different. Please make use of some of the terms used in this course in your argument, or presentation, should you not feel very argumentative about the subject For example, I'd like you to address whether you believe a leader of tomorrow ought to be more inductive or deductive in their thinking? Once you decide what it is, you might consider whether sexual, cultural or age differences have any bearing on whether a person is mostly inductive or mostly deductive? This essay might end with your speculation on the chief characteristics of the optimum leader where conditions are stable, then speculate as to whether these differ when conditions are so unstable as to threaten survival?

Step Five: Fast forward – a futuristic business plan, and the knowledge it is based upon

Assignment Three: Do a business plan for your ideal business in the year 2020. It does not need to be feasible, realistic or comprehensible, but it damned well ought to be interesting/exciting/ provocative, and in order to be this is must be understandable by the rest of us.

It needs to reveal what you define as the normative – the ought to be, not the “is” or the predestination of the “will be.” It will reveal your definition of doing the right thing, not how to do the wrong things more efficiently. It will show us how you feel about others, including your family members that live after you.

Step Six: Challenges for your business plan, and how to respond.

To be revealed once we know more.

Step Seven: You and Your Ontological Project

Forthcoming: Course Project when we know where we should go.

Grading routine:

Assignments one through three – 50%

Course project – 30%

Class participation, including DL – 20%.

Thank you for your attitude and patience. I think all of you will make a difference in New Jersey's future, and hopefully your leadership will have an impact beyond NJ.

BOOKS FOR THE COURSE, AND YOUR FUTURE

Course Books for Management 699

Prior to opening the book, or reading the papers as copied you should read the "History of Knowledge" document as attached. Its author, Piero Scaruffi, found at www.scaruffi.com, is also the author of the 2003 "Thinking about Thought." The approximately sixty pages provide a good introduction to the scientific breakthroughs of human thinking endeavors cast against a socio-economic-political background of events that defines business success, or failure.

In addition to the extensive copies of articles you were given at the outset of the course you will be given the following books a week to two after the course meetings begin. You might want to read the books in the following order, but if your intuition suggests another order for reading then please go ahead and follow your instincts, since that was/is an important part of the course. To be overly rational is to be intrinsically disabled.

1. Hamel, Gary and Breen, Bill, *The Future of Management*, Harvard Business School Press, 2007, \$25.

I, and those I work closely with, have never found Gary's books especially enlightening. This one seems consistent with that quality. None-the-less, it's important for you to see what a Harvard kind of person says about changing management ideas, to get a sense of how mediocre you can be while marketing yourself as advanced. Unfortunately, those who buy into this kind of business book don't have much time for reading or reflecting on reality. The book's contents will probably seem interesting for a year or two, as long as you don't probe too deep. It's included as a "bench-mark" guide of how to market being mainstream as being at the edge. It's a pretty easy read, and for some readers it gives an idea of why this course is being offered to MBA students who desire to lead tomorrow after putting up with pretty bad leaders today.

2. Williamson, Timothy: *Knowledge and Its Limits*, Oxford University Press. \$29

Williamson is an Oxford Professor of Logic. The book is generally well done, and takes you closer to the cutting edge but it's a cutting edge of mainstream thinking, not the edge of the edge, i.e., not what I'd call an exciting map for the future. It avoids most of the non-rational issues that face those dealing with knowledge and knowing in the future. It also avoids many of the ancient and yet unresolved issues of human thinking and

thoughts, especially those that arise in the east. On the brighter side, if your colleagues at work see you reading this it will raise your chances of getting them to listen to what you say. It's essentially how to improve what we are now doing, not how to find new/better things to do. The contents can be helpful to current issues and methods of business, such as IT directions and technology directed research, but it is not supportive of revolutionary thinking. Again, it is not the center piece of this course, but more contextual.

3. Merton, Robert and Barber, Elinor, *The Travels and Adventures of Serendipity*, Princeton University Press, 2004, \$29.95.

Things now get better, more interesting and more controversial. More to the point, this is where challenges will begin. Merton is one of the great social scientists of all time, and since management science is viewed as second rate SS it is a good idea of raise you head and see what the deeper thinkers think about social systems. This will get you closer to those that are concerned about the future of the human condition, and a bit further away from those that write simple-minded management articles with bad statistics of third generation non-data.

The contents of this book provide a good platform for those who have tried to use strategy formulation, rule-based management, operations research and operations management and found it less than interesting and not helpful in responding to change and complexity. If you'd like to confront the underlying dilemmas and necessity of corporate planning, as presented in this course, then this is a very helpful guide to the roles of "luck" and "chance" in all that corporate planners attempt to do. It provides some rather good suggestions as to where to search for the edges of knowledge in social systems. Consider that this book was written in 1952, intended to be published upon the death of the author, and when he died not a word was to be changed. None were.

4. Holland, John, *Emergence: From Chaos to Order*, Addison-Wesley Books, 1998.

Now things get closer to falling off the edge of the future. Ideas found herein are critical to those developing the leading science and technology in several arenas. Most of the world's best researchers think very highly of the workings of people associated with this person and the Santa Fe Institute of which he is an important member. John is a prime example of what you might think about when you are at the edge of knowing. He is a Fellow of the World Economic Forum and widely known as the "father of genetic algorithms." Many companies have used his work to critic and guide their R&D direction including some I've sent to him. Management science, as taught most places, can go here.

5. Feyerabend, Paul, *Killing Time: The Autobiography of Paul Feyerabend*, University of Chicago Press, 1993

Feyerabend was a professor of philosophy, University of California, Berkeley. He was a very gifted and troublesome individual. He died in 1994, but prior to that I found him amazingly helpful to criticizing everything. He critiqued some of my most closely held beliefs. Except for Nicholas Georgescu-Roegen, Feyerabend was perhaps the most

helpful person I ever met. He was extremely helpful to a 1989 project via highly insightful criticism of the then leading methods of research, including international business research. Via his work we formed and carried out the Conditions of Success project. This is one of the research efforts we will discuss in class and one that has recently become a key illustration for the new kinds of research to be done by the World Economic Forum researchers. Be careful if this book excites you. You will most probably not be quickly promoted or placed in fast track leadership training. On the other hand, you might wake up as a CEO without the track, based on understanding the turmoil created by the decisions of the fast trackers. This thinker is closer to the eastern approach to understanding and illuminates some of the mistakes we make in the west.

“In the west we state that science is where you can ask the same question twice and arrive at the same answer. In the east they ask why would you ask the same question twice?” (DH’s prior writings)

6. Fugere, Brian, et. al. *Why businesspeople speak like idiots*, New York: Free Press, 2005. \$22.00

In case you are confused by the ideas and words in the above books and want to “know the point of all this,” then you should find this final book helpful to you concerns. Over the years I have found that undergraduate students and CEOs tend to have little difficulty with the language and concepts I rely on. Graduate students and middle managers often do have trouble with my critic of management systems and prefer books like this that point to the problem but do not confuse things by addressing a resolution. Enjoy.

CONCLUSION:

When I introduce ideas it is always via company examples. These companies come from many countries and sectors but all share a demonstrated effort to find better ways to do better and thereby question the “rules of the road,” the “direction of progress,” and the “essentials of business.” These examples will be critical in your future and could be a central part of your MBA program as it is being redesigned. Many will find discomfort in it; especially faculty who do not want their teaching notes disrupted.

Most of the firms that are advanced in their thinking about the topics in the course are not American based, although most operate in the US. Thankfully, there are indications that some American Headquartered firms are changing and beginning to join the interesting group discussed in the course. One of these is based nearby our School.

Medco Tops Fortune’s List of ‘America’s Most Admired’ Companies in its Industry (March 6, 2008)

Medco listed No. 1 Among Health Care: Pharmacy and Other Services; No. 1 in People Management;

Runner-up to Berkshire-Hathaway as Long-Term Investment; No. 3 for Innovation

FRANKLIN LAKES, N.J., March 6, 2008 – Medco Health Solutions, Inc. (NYSE: MHS), captured the No. 1 position within the Health Care: Pharmacy and Other Services sector on Fortune’s America’s Most Admired Companies List. In addition, of all companies surveyed, Medco was ranked No. 1 in People Management. Medco was listed as No. 2 among all companies as “Most Admired: Long-Term Investment” – second only to Berkshire Hathaway; and third in the U.S. based on “Innovation,” trailing Apple and Nike.

“To be ranked highest among our industry peers is a tremendous honor. To join some of the world’s most revered companies across all industries – second only to the legendary Berkshire Hathaway as a quality investment and in the same league as Apple and Nike for innovation – underscores the value Medco delivers to the marketplace in improving clinical and financial outcomes for the millions of Americans we serve every day,” said David B. Snow Jr., Medco Chairman and CEO.

Fortune, in partnership with the Hay Group, surveyed 622 companies across 64 industry sectors. To create the industry lists, executives, directors, and analysts were asked to rate companies in their own industry on eight criteria, from investment value to social responsibility. Results are featured in the March 17th issue of *Fortune* magazine.

According to the *Fortune* survey, Medco received several industry and national honors:

No. 1 Most-Admired: “Health Care: Pharmacy and Other Services” category – with the industry’s highest rank in each of eight attributes: innovation, people management, use of corporate assets, social responsibility, quality of management, financial soundness, long-term investment and quality of products/services.

No. 1 nationwide in People Management

No. 2 nationwide for Long-Term Investment, following Berkshire-Hathaway.

No. 3 nationwide in Innovation, following Apple and Nike.

No. 3 nationwide for Quality of Products and Services, following Anheuser-Busch and Nordstrom.

Fortune Most Admired, Page 2

No. 6 nationwide for Financial Soundness.

No. 7 nationwide in Social Responsibility.

No. 10 nationwide for Use of Corporate assets.

Among the most admired in New Jersey.

Continued Snow: “Innovation and quality describe not only our company, but the values of our people who are dedicated to pushing the frontier of pharmacy to improve clinical and financial outcomes – ensuring quality care remains affordable and accessible.”

Medco is redefining pharmacy practice by employing hundreds of trained specialist pharmacists to help improve the quality of care for patients with chronic and complex conditions. These pharmacists are better positioned to identify safety issues and consult more effectively with doctors to improve patient care and help lower overall health care costs. The specialist pharmacists work within the **Medco Therapeutic Resource Centers®**, with specific centers located nationwide focused on conditions that include diabetes, oncology, arthritis, high blood pressure, high cholesterol and neurology/psychology.

About Medco

Medco Health Solutions, Inc., (NYSE:MHS) is the nation's leading pharmacy benefit manager based on its 2007 total net revenues of more than \$44 billion. Medco's prescription drug benefit programs, covering one in five Americans, are designed to drive down the cost of pharmacy health care for private and public employers, health plans, labor unions and government agencies of all sizes, and for individuals served by the Medicare Part D Prescription Drug Program. Medco, the world's most advanced pharmacy™, is positioned to serve the unique needs of patients with chronic and complex conditions through its Medco Therapeutic Resource Centers®; its diabetes pharmacy care practice, Liberty Medical; and its specialty pharmacy operation, Accredo Health Group, Inc. Medco is the highest-ranked independent pharmacy benefit manager on the 2007 Fortune 500 list. On the Net: <http://www.medco.com>.

In case nothing else in this course and in your studies makes sense you might consider the follow bench mark to sort out where you should fit into the business workplace once you have graduated. This is via the complements of Marianne Kosits, Executive Consultant, IBM Global Technology, who I asked for advice on how what is learned in contemporary MBA programs relates to how IBM and her major clients can place them in work assignments. (Probably she is kidding?)

TO PROPERLY PLACE MBA GRADUATES

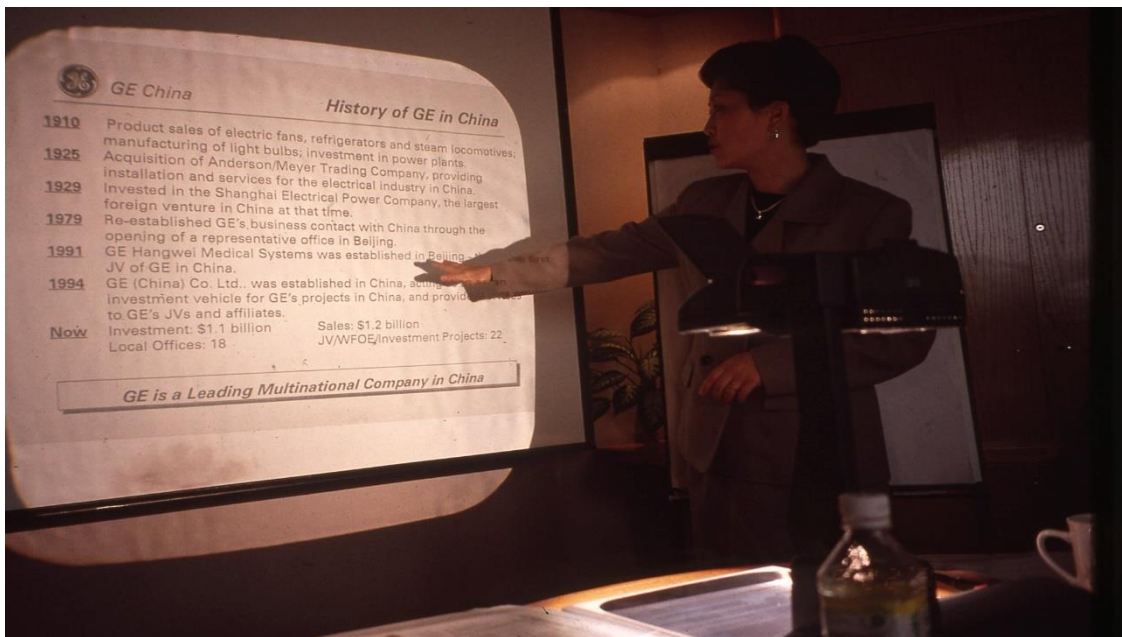
Put 400 bricks in a closed room, then put your new MBA hires in the room and close the door. Leave them alone and come back after 6 hours. Then analyze the situation:

- If they are counting the bricks, put them in the **Accounting Dept.**
- If they are recounting them, put them in **Auditing.**
- If they have messed up the whole room with the bricks, put them in **Engineering.**
- If they are arranging the bricks in some strange order, put them in **Planning.**
- If they are throwing the bricks at each other, put them in **Operations.**
- If they are sleeping, put them in **Security.**
- If they have broken the bricks into pieces, put them in **Information Technology.**
- If they are sitting idle, put them in **Human Resources.**
- If they say they have tried different combinations and they are looking for more, yet not a brick has been moved, put them in **Sales.**
- If they have already left for the day, put them in **Management.**
- If they are staring out of the window, put them in **Strategic Planning.**
- If they are talking to each other, and not a single brick has been moved, congratulate them and put them in **Top Management.**
- Finally, if they have surrounded themselves with bricks in such a way that they can neither be seen nor heard from, send them to **Congress.**

Student Trips to Foreign Companies as Part of the Course



1. Student Trip to Stockholm School of Economics, Institute of International Business, to meet with professors and members of the Nobel Prize in Economics Committee.



2. Student Trip to China, for Meeting with President of GE-China



3. Student Trip to Volkswagen of Brazil



4. Visit To the Great Wall Trading Company, Then China's Largest Company



5. Student Trip to visit Russia's Largest Beer Company and see their main plant.



6. Student Trip to visit Concha y Toro Wine Company in Chile, Vineyard and Factory Tours



7. Student Trip, Meeting Executives of China's Largest Pharma Company, Tour of Offices, R&D, and Factory



8. Student Trip, Meeting with a New Jersey's Senator and Staff, Washington, D.C.



9. Lecture by World's 4th most popular Corporate Lecturer (Financial Times Listing), Jonas, to an EMBA Class at NJIT. He was once a student of Professor Hawk.



10. Student Trip of Foundation of Asia's Tallest Building, Shanghai Financial Center



Student Trip to Disney Hong Kong, to meet its Designer, Grace Li, NJIT Alum. She was the Designer of HK Disney



Student Trip to meet President of Shimizu of Tokyo, Japan's Largest Construction Company



Student Trip to Hong Kong Trade Development Company, to meet with its President and Officers.



Student Trip to Meet Director and Staff of Beijing Olympics