

The Wharton School
UNIVERSITY OF PENNSYLVANIA
Department of Operations and Information Management
Syllabus for OIDD 210

Information:
Strategy and Economics

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Class Sessions: M, W 12:00-1:30

Office Hours: M, W 2-3 | T 11-11:45 and 1:30-3:00 | and by appointment

Teaching Assistants

TBD

Increasingly, the profession of management has become algorithmic and quantified, and management education has changed accordingly. OIDD 613 is intended as a complement to the algorithmic aspects of MBA education, and it focuses on developing model-based intuition. It offers students a personal competitive advantage, *managerial judgment in the age of machines who think*. Ideally, this will protect your career by making you *automation-proof*.

OIDD 210 focuses on the impact of *information on management*, rather than the *management of information* or the *management of information technology*. The course prepares students to master information as a strategic asset, and combines theory, models, and case studies drawn from the instructor's professional experience. It is not a course on big data analytics or on the management of data, but rather is a course on diagnosing and solving ambiguous and poorly structured problems posed by changes in information availability. Consequently, the course is targeted at students interested in a career in strategic consulting or marketing strategy, and at students who need a solid command of valuation of online businesses in order to pursue a career in private equity.

Information has changed the operations, strategy, and structure of firms in all industries. Of course this is most visible in firms like Google and Facebook, with business operations that are entirely online and in support of activities that are largely online. But it is visible in a host of more traditional businesses, including those that historically had relied on massive investments in physical assets. These range from banking ("*What's in your wallet?*") and retailing (*Using Alexa to order beer from Amazon with two-hour delivery*) to transportation (*Using Uber instead of a taxi*).

Interestingly, many online business models are not as innovative as they initially appear, and many turn out to be simply reworking of an earlier model whose success has been proven and whose value is clear. Understanding the prior uses of information-based business models greatly facilitates understanding new opportunities and evaluating new companies.

- Capital One exploited a newly vulnerable market and found a way to attract its competitors most profitable customers. It transformed the credit card industry and other banks either adapted or were forced out of the credit card business. While Uber and Capital One initially appear as different from each other as two companies can be, Uber also exploited a newly vulnerable market and is crushing traditional taxi companies around the world.
- Sometimes a new business may represent the combination of two patterns observed previously. Google's business model is a combination of controlling a gateway (like the airlines' reservations systems from the 1980s) and a platform envelopment strategy (like AT&T in the 1930s and Microsoft in the 1990s).

This course will focus on problem diagnosis based on historical understanding of a small set of important business models. Few problems in business come fully labelled with their root cause or with their appropriate solution technique. And yet there really is only a small set of business problems that one needs to recognize and needs to be able to solve. This course will therefore address one of the most critical skills a leader can possess, the ability to encounter an unfamiliar situation and rapidly transform it into one that the leader has solved before.

This course does not require any background or training in technology or computer science. It does assume familiarity with strategy and with marketing.

Course Objectives

At the conclusion of the course, students will have mastered the following:

- **Developing model-based intuition for dealing with strategic ambiguity.** Much of senior management is not about algorithmic decision-making, but on understanding the nature of strategic ambiguity and determining which forms of analysis are most appropriate. This is the principal focus of this course.
- **Transforming and reframing questions as the basis of problem solving:** Most strategic problems originally appear in ways that are difficult to recognize and difficult to understand. Transforming questions into a different format often makes these strategic problems tractable. Learning to solve difficult problems is a fundamental objective of this course.
- **Using the Power of Information:** Students will understand the opportunities to launch innovative online businesses and modify the information-based strategy of existing businesses.
- **Valuing Businesses in the Presence of Uncertainty:** Most innovative information-based businesses involve a significant level of uncertainty, for entrepreneurs, for early round capital and for investors. Students will understand the most powerful techniques for assessing and managing risk.
- **Using history to predict the future:** There is a small number of new models for information-based strategies, and these are deployed, often in combination, by most new businesses no matter how original they may appear. Mastering these new models is a powerful predictor for entrepreneurs, for early round capital and for investors.
- **Bounding uncertainty with scenario analysis:** Some changes really are so disruptive that historical data have little predictive power. Scenario analysis still permits bounding the set of possible alternative future outcomes, even if it cannot identify a single future outcome as inevitable.

Required Text

The primary text for the course is *New Patterns of Power and Profit: A Strategist's Guide to Competitive Advantage in the Age of Digital Transformation*. A few additional readings will be provided, primarily from a text that contains supplemental chapters with more detail and more mathematics than present in *New Patterns of Power and Profit*. These readings are from *Oh, Yeah, Now I Get It: Learning to solve really complicated problems in business, in society, and in life*.

Course Pedagogy and Philosophy

Students will be required to complete two out of three assignments during the semester rather than seven out of nine as in previous years. Since the assignments were principally to prepare students for class discussion and for the final project, the weight assigned to written assignments has been decreased and the weight assigned to class discussion and to the final project have been significantly increased. The final project serves in large measure as course integration, as an opportunity to demonstrate mastery of the material, and as a personalized final examination on projects selected by groups of students because of their interest in their project. Projects will be expected to reflect the material covered during the semester. The final reports Project teams will be expected to respond to comments and direction received during preliminary presentations.

Assignments and Grading

There will be several in-class discussions of cases or of problem sets during the semester. Please note that all written assignments are shown in **RED** in the electronic version of the course syllabus. Dates when written assignments of any kind are due are noted in **RED**, both in the session-by-session course outline and at the top of each day's page in the syllabus. Classes that require additional preparation for discussion but do not have written assignments due are highlighted in **BLUE**, both in the session-by-session course outline and at the top of each day's page in the syllabus. Written assignments should all be done in *groups of two or three* students. These same groups may wish to prepare together for discussion sessions as well.

Written assignments must be submitted electronically to the course website at the start of the class sessions in which they are due; since assignments will usually be discussed in class on the date that they are due, it will not be possible to accept late assignments unless prior arrangements have been made. **If students do submit more than the required minimum number of assignments, only the *highest* assignments will be counted towards their grades; thus the later assignments can be considered make-up assignments for an assignment missed for any reason or for an assignment where students felt they did poorly.**

Students will also be expected to do a final project for the course. For the final project students can start working in groups of four to six team members, by combining two homework teams if desired. Larger groups may be formed after the initial project presentations. Additional details on the final projects will be provided early in the semester. There will be a mid term exam during the normal class period.

The final project is critical to your learning from this course, and it must apply concepts learned during the course. You need to demonstrate that you understand the structure of the system you would need in order to implement your idea, and you need to demonstrate your user interfaces and to describe your internal data structures. What

would you need to know in order to have the systems built for you? More importantly, you need to demonstrate that the marketplace would accept your idea. Would users actually use your system? Would they actually pay for it? If you are going to fund your work through ads, who would want to advertise on your systems? If you are going to sell products or content, or to resell other people's products or content, would you actually be able to get what you need to sell? Would users pay you for it?

The final project will count for **40%** of your course grade, class participation will count for **20%**, the midterm will count for **25%**, and the written assignments will count for **15%**. Please note that the final project is the most significant component of your grade. Project grades will be based in part on the extent to which they reflect the material covered in the course and in part on the extent to which they reflect the feedback and guidance offered to project teams during preliminary presentations.

Color Coding in the Syllabus

A **bold red session heading** indicates that something is due at the beginning of the day's class. A **bold blue session heading** indicates that this is a discussion session, although there will not be a written assignment due. A **session heading highlighted in yellow** indicates that the session will be held in the evening. **Please note that the evening sessions are required and not optional.** A **session highlighted in grey** indicates that it has been replaced with meetings during office hours to review progress on your final project and that the regularly scheduled class will not be held.

Student Bios

Please send a word file containing a short biographical sketch, not a full resume, via email, to **clemons@wharton.upenn.edu**. Please title your attached file **210S18_I_NAME.doc**, where **I** is your first initial, and **NAME** is your last name. Please provide the following information:

- your expected concentration at Wharton
- your experiences relevant to the topics of this course
- your reasons for taking this course and what you hope to get out of it

OIDD 210 — Information: Strategy and Economics

Suggestions for Preparing Written Case Analyses

The following simple guidelines will help you in your written case assignments for this course:

- You are, of course, not only permitted but **encouraged to meet to discuss your case assignments** before class, but all written exercises must be done individually or in your groups of two or three.
- The most important thing to remember about the exercises is that it is necessary for you to **answer the assigned questions**. In this course we are not asking you to perform a general competitive analysis, tell a captivating story, summarize the case reading, or describe the company. We are asking you to perform specific analyses, based on the readings for each session, using specific principles from economics and competitive strategy. Please be certain that your answers are responsive to the assigned questions. Likewise, please separate and number your answers to ensure that you answer each part of each question, and to help your graders when reviewing your work. If what you are writing does not respond directly to a specific question, it probably does not need to be written, however extra credit can be earned for especially insightful answers.
- Next, it is critical to understand that the graders are not looking for specific key words, but they are looking for **careful strategic analyses and for specific supporting details**. On many questions, it is possible to reach dramatically different but equally valid conclusions about the case, depending on the assumptions you make or the data you use. Please be specific about your assumptions and your supporting data and clear about your analyses.
- **There is no maximum length acceptable and no minimum length required. Most cases will be three or four pages, double-spaced.** However, longer answers are not generally better or more complete. It is preferable to have a well articulated response that presents a single well considered viewpoint, well defended by specific examples. Longer papers frequently mean that you have not yet decided upon your answers and have instead “written around the question” and provided multiple and contradictory responses rather than articulating a single argument.

Please submit cases to Canvas before the start of the class in which they are due; Canvas will not accept cases submitted after the start of class. Written analyses cannot be accepted late unless prior arrangements have been made.

It will be beneficial for groups to meet to discuss questions before class, even on days when no written assignment is due.

OIDD 210 — Information: Strategy and Economics

Suggestions for Preparing for Class Discussion

In this course class discussion is not intended to repeat the readings, but to build on them. I want you to understand how new patterns in information-based strategy are developed and tested and how new mental models are developed; I don't just want you to memorize the patterns. I want you to understand how to apply these mental models in new ways, to solve unfamiliar problems, using history and analogies.

In some ways this class is a throwback to an earlier style of case discussion. My experience and the readings are just a starting point. Your personal experience is relevant, of course. So is almost anything you may have read that can help you interpret the case, based on historical precedents from previous courses, previous business experience, or readings from previous decades or even from previous centuries. Google has implemented a platform envelopment strategy by bundling so many capabilities into its Android devices, just as Microsoft did when it bundled so much functionality into Windows. Putin has decided to keep Russia and as much of the former Soviet Union together as he can, whether it wants to be kept together or not, just as Abe Lincoln kept the Union together whether it wanted to be kept together or not. This does not equate Google and Microsoft, any more than it equates Putin and Lincoln; it does suggest that history can provide insights and enable predictions about what might happen next, even when the parallels are not exact.

But how do you prepare for a class where discussions can rely on anything and everything?

- First and foremost, you can't build on the readings if you haven't done them. It really is essential to do the readings before each class.
- Next, look at the questions for the day. Every class has a list of discussion questions associated with it. These do *not* tell you what we are going to discuss that day. They *do* tell you what to think about in order to get ready for class discussion.
- Think about the examples in the reading. When have you seen patterns similar to the ones covered in the readings? When have you encountered problems similar to those in the readings? What did you do that was similar to the solutions suggested in the readings? What did you do differently?
- Finally, most importantly, do the short write-ups required for each class. It is ok to do them after discussion with classmates. They should only take a couple of minutes. They are intended to be short mental check-lists, not long written homework assignments. They are intended to start you thinking about what you read, and to get you ready for class discussions.

Unfamiliar situations are often stressful, and I want to create unfamiliar situations in the safe environment of the classroom, to prepare you for dealing with the stress of these unfamiliar situations when your responses really matter to your career and to your company.

And remember, *everyone* will find some point in class in which they don't know the answer to a question. The key thing is to figure the answer out; it's not that you don't know, but that you don't know *yet*.

Course Outline and Readings

Unit 1 — Strategy and Agility in the Face of Discontinuous Change

- Session 1 W 16-Jan **Introduction and Course Overview**
Introduction to the changing role of information in business. Changing information endowment changes everything, from human behavior to corporate strategy.
Read: *New Patterns of Power* (Prolog)
- Session — M 21-Jan **No Class — Martin Luther King Jr. Birthday**
- Session 2 W 23-Jan **Learning from the Experience of Others — *The Power of Pattern Recognition***
Review of the science of business and the science of strategy formulation in the presence of discontinuous change, based on patterns observed over the past twenty years.
Read: *New Patterns of Power* (Chapter 1, Sections 1-5)
- Session 3 M 28-Jan **Versioning and the Market for Information Goods**
Introduction to types and willingness to pay. Introduction to information asymmetry. Introduction to versioning contracts to maximize producer surplus.
Read: *New Patterns of Power* (Chapter 2)
- Session 4 W 30-Jan **Versioning and the Market for Information Goods — Continued**
Signaling, screening, masquerading, data mining, and regulatory complexity.
Read: Continue reading *New Patterns of Power*, (Chapter 2)
- Session 5 M 4-Feb **Dealing with Information Asymmetry — Screening Mechanisms in Newly Vulnerable Markets**
Gaining competitive advantage through systems for market micro-segmentation and differential pricing; attempting to sustain advantage.
Read: *New Patterns of Power* (Chapter 1 Section 6, Chapter 2 Section 3)
Discussion: Screening and Competitive Advantage
- Session 6 W 6-Feb **The Power of Framing and Reframing**
Problems can be made much easier by proper reframing. Conversely, problems can be made much more difficult, or even impossible to solve, by an incorrect framing
Read: *New Patterns of Power* (Chapter 3)
(Optional) *Now I Get It* (Chapters 1.10, 3.9, 3.10)
- Session 7 M 11-Feb **Hustle at a Discontinuity followed by Platform Envelopment: Platform Envelopment and Resource-Based Sustainable Competitive Advantage**
What does the success of Rosenbluth International tell us about platform extensions and resource-based competitive advantage? What does this tell us about Microsoft and Google?
Read: *New Patterns of Power* (Chapter 6)
Discussion: Platform Envelopment

- Session 8 W 13-Feb **The Why of Outsourcing — Understanding the Changing Risk Profile of Outsourcing**
Information Systems and the structure of manufacturing operations — the changing balance between internal production and outside procurement.
Read: *Now I Get It* (Unit 4, Introduction and Chapters 1-10, 12)
- Session 9 M 18-Feb **The Power of Certainty — Resonance Marketing**
The role of increased information in the changing balance between cost-based strategies and value-based strategies, the changing advantage of incumbents, and the changing nature of competition.
Read: *New Patterns of Power* (Chapters 4 and 5)
Discussion: The Logic of Resonance Marketing
- Session 10 W 20-Feb **First Thoughts on Finding a Business Opportunity, Preparing a Business Plan**
What are your passions? Can you commercialize them? How can you determine this and how can you convince others to support you? Guest speaker from Wharton Small Business Development Center.
Read: **<<To Be Determined, on creating a business plan>>**
BP: Team Lists and Contact Information Due
- Session 11 M 25-Feb **Quantitative Analysis of Resonance Marketing Examples**
The ideas of resonance marketing can be used to quantify the impact of online content and community-generated reviews on new product launches.
Read: *Now I Get It* (Unit 8, introduction and all Sections plus Appendices)
HW1: Written Analysis — Quantitative Analysis of Resonance Strategies
- Session 12 W 27-Feb **The How Not of Outsourcing — Stasis Bank**
Understanding, designing, and managing the risk profile associated with outsourcing information systems.
Read: Clemons, Stasis Bank Case
Clemons, Cloud Computing
Discussion: The How Not of Outsourcing in the Era of Cloud Computing
- Session — M 4-Mar **No Class — Spring Break**
- Session — W 6-Mar **No Class — Spring Break**
- Session 13 M 11-Mar **Making the Technology Investment Decision**
In some ways information technology investments are similar to other large capital investments with long lead times and resulting uncertainty; in other ways they have unique problems all their own.
Read: *Now I Get It*, (Read Unit 11)
(Suggestion — you may want to begin reading ahead for class on 13 March)
HW2: Computational exercise on business valuation

Session 14 W 13-Mar **No Class — Mandatory Office Hours Appointments to Discuss Final Projects — It is essential that you start thinking about your projects early!**

Unit 2 — Redesigning the Organization

Session 15 M 18-Mar **Information Goods as a Strategy — Monetizing the Net beyond Advertising**

Current acquisitions of social network websites and user content websites have generated considerable interest and huge bids from media companies. Is this the big play in the next round of internet-based companies or simply the next round of dotcom silliness? How can the net be used to generate revenues and profits? Surely there must be something other than advertising!

Read: *New Patterns of Power* (Chapter 11)

Session 16 W 20-Mar **Two-Sided Markets, Platform Envelopment, and Third Party Payer Business Models**

Third Party Payer business models appear to be a special case of what are now commonly called two sided markets. When are they dangerous? When are they ideal for consumers but dangerous? When are they ideal for all parties?

Read: *New Patterns of Power* (Chapters 7-9)

HW3: Computational exercise on the power of search

Session 17 M 25-Mar **Review Session before Mid-Term Examination**

*Review of material in preparation for Mid-Term. (Mid-term exam will cover all material presented **before** this session.)*

Session 18 W 27-Mar **In Class Mid-Term Examination**

Session 19 M 1-Apr **Preliminary Business Plans Due!**

Groups will submit a written description of the business opportunity that they intend to explore and will present three overheads describing the business opportunity and why the group believes it will be valuable. These business plans will be discussed in class. You will be given instructions for submitting them in advance of class.

BP: Business Plan PowerPoints (no more than six slides plus title page) need to be loaded on the course website and Business Plan Proposals needs to be submitted.

Session 20 W 3-Apr **Preliminary Business Plans Due!**

Continued discussion of preliminary business plans.

BP: Business Plan PowerPoints (no more than six slides plus title page) need to be loaded on the course website and Business Plan Proposals needs to be submitted.

Session 21 M 8-Apr **Review of Mid-Term Examination**

- Session 22 W 10-Apr **Redesigning the Organization**
Often a change in information technology changes what is now possible for the firm, which changes the firm's strategy and structure.
Read: Transforming the Sales Function
Analysis: SNM and Plover
- Session 23 M 15-Apr **Special Topics of Interest**
Class will be based on special topics of interest, determined in part by current events and in part by interests of the students.
Read: <<**To Be Determined. Class discussion will be based on materials to be drafted during the semester**>>
- Session 24 W 17-Apr **Learning To See Alternative Worlds — The Power of Scenario Analysis When Dealing with Strategic Uncertainty**
Planning under uncertainty and the use of scenario analysis; discarding your old mental models in preparation for developing a new world view.
Read: *New Patterns of Power* (Chapter 10)
- Session 25 M 22-Apr **Scenario Assignment — Using Scenarios to Manage Uncertainty**
Analysis and Discussion: Using Scenarios
- Session — W 24-Apr **No Class — Work on Final Projects**
- Session 26 M 29-Apr **In-Class Session — Discussion of Final Projects**
- Session 27 M 29-Apr **Double Evening Session — Discussion of Final Projects**
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Class will run from 6 to 8.30. Sandwiches and soft drinks will be provided. In order to be polite to students presenting in the evening session, attendance will be mandatory unless individual students arrange excused absence from class in advance. Feedback at these sessions will be essential in development of final projects.
Read: *New Patterns of Power* (Chapter 12)
- Session 29 W 1-May **Course Summary and Integration**
W 1-May **Final Projects Accepted any time between Noon Wednesday 1 May and Noon Thursday 9 May.**

**OIDD 210 — Information:
Strategy and Economics**

**Learning from the Experience of Others — The Power of Pattern
Recognition**

Session 1 — 16 January 2019

**Questions for Class Discussion
Not for Written Analysis**

1. Why is this course about *information* rather than about information technology? Why is this course about *information-based strategy* rather than about information technology?
2. What is *strategy*? When do you *need* strategy? Do you need a strategy to get a seat on a bus at rush hour? Do you need a strategy to divide your weekend dating time with your roommate? Do you need a strategy for allocating your time to your classes each week? Do you need a strategy for preparing for and managing a job interview? Why or why not?
3. Do big data and the emergence of real-time advanced analytics eliminate the need for strategy? Can you use machine learning, rapid adaptation, and controlled testing
4. Do big data and the emergence of real-time advanced analytics eliminate the need for judgment and intuition? Do algorithms, formal operations management, and formal optimization eliminate the need for judgment and intuition? If strategic planning could be performed by algorithms, what is the value of a business degree?
5. Why is there a final project in this course? Why do we dedicate so much class time to the final project when we could be “teaching and learning instead”?

**OIDD 210 — Information:
Strategy and Economics**

**Learning from the Experience of Others — The Power of
Pattern Recognition**

Session 2 — 23 January 2019

**Questions for Class Discussion
Not for Written Analysis**

1. What makes a theory useful? Descriptive power? Predictive power? Falsifiability? What do we think about the Atomic Theory of Matter? About the theory that human behavior is leading to climate change?
2. How would we judge a theory that says Amazon did well because it branched out boldly, and J&J failed because it merely tried to sell what it had always sold but in a new online channel? What does this boldness theory of eCommerce success tell us to expect from very safe and traditional online grocery sales at Tesco or bold and innovative online sporting goods sales at Buy.com? Would you expect the success of online sales at Tesco and Ford to differ based on this theory, or do you not have enough information even to test the theory here?
3. What are the principal differences between *strategic uncertainty* or *ambiguity* and *strategic risk*? Why are the mechanisms for managing risk better understood than the mechanisms for managing uncertainty and ambiguity?
4. Do you believe that standard paradigms like conservation of energy in physical systems or finite element analysis in structural engineering have counterparts in management?
5. Can managers be taught a set of paradigms to permit rapid diagnosis of problems and rapid recognition of solutions? Are new paradigms really needed for management education?
6. What is the importance of speed in diagnosis and recognition? Is diagnosis really a critical skill for managers?
7. What is the theory of *newly vulnerable markets* and how is it used as the basis of designing an entry strategy for attackers in mature industries?

**OIDD 210 — Information:
Strategy and Economics**

**Versioning and the Market for Information Goods:
Information, Information Asymmetry, and Pricing**

Session 3 and 4 — 28 and 30 January 2019

**Questions for Class Discussion
Not for Written Analysis**

1. Why is it necessary to enjoy a monopoly position before a firm can attempt to set a single, profit-maximizing price? Why does a single profit-maximizing price result in a large consumer surplus and a large deadweight loss? That is, why are multiple prices better, both for higher producer profits and lower deadweight loss?
2. With perfect information, consumers would always choose the lower price if the same item was made available at different prices. How does this explain the existence of *versioning*, selling very similar items at different prices? Why is versioning, to set very different prices on very closely related items after damaging the highest quality ones to create variation, more common with information goods than with purely physical goods?
3. If a firm knew each customer's *type* (good or bad risk, expensive or inexpensive to serve, etc.) how could it use this information?
4. Why does a signal about *type* have to be expensive or difficult to send in order for it to be reliable? What if consumers got a 20% reduction in their insurance for taking a 2-hour *attitude training and anger management* class? What if they got the same 20% reduction only after perfect attendance at a 12-month class with an exam after each session? What if you got a 20% reduction in health insurance costs for joining a health club for \$100? What if you got the same reduction only for having played a varsity sport and continuing to play in an amateur club league?
5. What is the principal difference between a *signal* and a *screen*? Why is the use of screening mechanisms and screening contracts in business so much more common than the use of signals?
6. Why are there complex social issues associated with using information about differences among customers? Why are these issues becoming more complex? Why are regulators becoming suddenly more interested in corporate use of screening contracts and data mining?
7. Why are these issues complex enough that regulators often get their analyses wrong in subtle ways that have huge implications for the markets?
8. Think about an example when you used or encountered a *signal* in your personal or professional life. Describe an example when you used or encountered a *screen* in your personal or professional life. What information asymmetry was being addressed. Why was the screen or signal the appropriate mechanism for dealing with information asymmetry?

OIDD 210 — Information: Strategy and Economics

Dealing with Information Asymmetry — Screening Mechanisms in Newly Vulnerable Markets¹

Session 5 — 4 February 2019

Questions for Case Discussion Not for Written Analysis

1. It seems pretty clear that the *defender* should *always* enjoy an information advantage, relative to a competitor attempting to capture its most profitable customers. That is, the *attacker* is *making educated guesses* about who might be profitable and who might not be; the *defender should always have more accurate information* on who has been profitable and who has not been. Why do some attackers encounter situations where defenders appear unable to duplicate the attackers' strategies and thus unable to defend themselves effectively?
2. What are the three characteristics of a Newly Vulnerable Market and why are each important?
3. Why did Capital One face a Newly Vulnerable Market? Describe each of the three elements that enabled Capital One to treat credit cards as a newly vulnerable market?
4. Capital One had higher costs than other credit card issuers because it did not have access to deposits or other cheap sources of funding for its credit card portfolio, it did not have operational scale, and it was attempting to implement more complex marketing strategies than its competitors. And yet it charged lower prices than its competitors, as reflected in its lower APR. How can any organization have higher costs and lower prices than competitors and still be more profitable?
5. Customer profitability gradients are not unique to banking or even to sophisticated services. The US Postal Service has been in trouble for years, since long before the widespread adoption of services like email. At one end of the market it lost market share among customers who wanted mass mailings to city residents. At the other end it lost market share among customers who were willing to pay for special delivery services, who switched to Federal Express. (i) The USPS is required by law to charge all customers the same amount for each class of service, regardless of location of sender and addressee. How does this contribute to the existence of a CPG? (ii) Why are local delivery customers and customers who most want immediate delivery extremely desirable? (iii) How does the loss of these two segments create problems for the USPS?
6. The idea of customer profitability gradients and information asymmetry should be readily extensible to other industries. (i) Is there a strong customer profitability gradient in private medical coverage, such as operating an HMO or PPO? If so, what would constitute a profitable customer? (ii) How might an unscrupulous HMO or

¹ There are no posted class notes for case discussion sessions.

PPO operator earn extraordinary profits through a Capital One strategy? (That is, what would a screening mechanism look like?) (iii) In the era of traditional landlines and regulated telephone service, was there a strong customer profitability gradient? If so, what constituted an extraordinarily profitable customer? (iv) How might an unregulated new entrant have attracted profitable customers? (That is, what would a screening mechanism look like?)

7. How easy was it for Capital One to extend its strategy to other industries? That is, (i) How well did they succeed with their attempts to create a retail online flower business or an online retail gift retailer selling valentine chocolates and other holiday favorites? Are they competing effectively with Amazon, Teleflora, and other online retailers? (ii) How large is the customer profitability gradient in those industries? (iii) How easy is it to construct a screening mechanism for these other industries? [Check Capital One's annual report for contributions from online sales of flowers and gifts to assess their success in these industries.]
8. Uber has certainly been in the news lately, and much of the news has not been good. Traditional taxicab companies and their drivers hate Uber. Uber targets the most profitable customers, those who need cabs when cabs are difficult to get, and charges them much higher prices. Uber confirms timing and pricing, and lets you use your smart phone to pay for your taxi and to monitor the location of your car as it approaches. Let's analyze this as if it were a newly vulnerable market (i) Is the market for online delivery of taxi reservations newly easy to enter? (ii) Is it attractive for Uber to attack? (iii) Is it difficult for traditional taxi companies to defend themselves from Uber, and if so, why?
9. Think about another example of a newly vulnerable market not discussed in the text. What made the market newly easy to enter? Why was there a customer profitability gradient and how was the attacker able to identify and profitable customers, in order to exploit the customer profitability gradient?

**OIDD 210 — Information:
Strategy and Economics**

The Power of Framing and Reframing

Session 6 — 6 February

Questions for Class Discussion

1. Why do we spend an entire class on framing, reframing, and asking the right question? Doesn't your manager, or your client, always know how to ask the right question?
2. OK, so Lewis Carroll came up with some cute problems. How can you solve his "clock" problem by brute force arithmetic? How can we solve this problem more easily, simply by reframing the question? Be prepared to think about some additional cute Lewis Carroll problems in class. Why are problems like this useful preparation for management decision making, even though no one will ever ask you to solve a problem involving clocks and watchmakers as part of your career?
3. The Board at Merrill Lynch was considering a serious decision regarding restricting Mike Bloomberg or allowing him to sell his system whenever and wherever he wished. Why was the problem important? Why was it difficult to solve in its original form? How and why did changing the question make it easier to solve? Why didn't members of Merrill Lynch's management team make this transformation sooner?
4. Unilever and British Airways both started thinking about online sales because supermarket markups and travel agent commissions at least potentially represented great new profit sources without requiring any increases in sales. Why did Lever conclude that the supermarket distribution channel was neither easy to enter nor attractive for a new entrant to attack? Why did BA conclude that travel agent distribution was both newly easy to enter and attractive to attack? Why was the supermarket easy for large retailers to defend against attack by manufacturers of fast moving consumer goods? Why was the market for online travel difficult for agencies to defend against attack by airlines?
5. And then there is that Monty Hall problem again. Explain it to me. Explain it to your classmates.
6. Reframing is not always about life, death, and personal survival but it is often profoundly important. Think about an example of a problem that you were initially unable to solve, and describe how you reframed it in order to solve it more easily.

**OIDD 210 —Information:
Strategy and Economics**

**Hustle at a Discontinuity, followed by Platform Envelopment:
Platform Envelopment and Resource-Based Sustainable
Competitive Advantage**

**(Rosenbluth Travel Case Discussion and Discussion of Channel
Conflict)²**

Session 7 — 11 February 2019

**Questions for Class Discussion
Not for Written Analysis**

1. Rosenbluth appears to have benefitted from opportunities in travel as travel became in some sense a newly vulnerable market. (i) Why was there a customer profitability gradient in air travel reservations after deregulation of air travel? (ii) Why were there now opportunities to add value for corporate customers? (iii) Why were airlines not able to counter Rosenbluth's moves into corporate-focused travel services? That is, why were they not able to protect themselves from Rosenbluth's attack on their ability to serve their most profitable customers?
2. Rosenbluth seems to have enjoyed competitive advantage for many years. (i) Why didn't American Express or some other dominant player launch a corporate-focused strategy before Rosenbluth? (ii) Why didn't every other small agency replicate this strategy once its value to Rosenbluth became clear? (iii) [Platform envelopment strategies occur when new applications make old applications more valuable, and make existing infrastructure more valuable. This increases the value of incumbents' assets, making it harder for new entrants to compete.] In what ways did Rosenbluth clearly follow a platform envelopment strategy, with new applications interacting with older applications to create value for customers?
3. Rosenbluth has exited the industry, and under terms much less attractive than they would have gotten in 2000. (i) Why did airlines want to recapture control over their ticket sales? (ii) Why were airlines able to recapture the booking of air travel; that is, what made the market for selling airline tickets newly easy for airlines to re-enter using a channel encroachment strategy?
4. When valuing Google, we are tempted to claim their business model is unique. Almost nothing in business is unique. (i) Could we use the CRS business as a "like" when using mark to like to value Google? What are the similarities? Who uses the CRS and who uses Google? Who pays in each case? (ii) What are the differences between search for flights and search for everything? Which market is larger? (iii) What other differences are relevant? Why couldn't airlines escape from the travel agent CRSs in the 1980s? Are there firms that can escape from the power of third party payer search? Are there firms that probably cannot?

² There are no posted class notes for discussion sessions.

5. Does Google appear to be following a platform envelopment strategy, with new applications intended to build on and increase the value of existing applications?
6. Why did the FTC drop its investigation of Google?
7. Did Microsoft follow a platform envelopment strategy? That is (i) did it have at least one application with nearly universal adoption? (ii) did it find a way to combine that application with other applications, to produce a sustainable revenue source that competitors could not match?
8. Is Facebook following a platform envelopment strategy? That is (i) does it have at least one application with nearly universal adoption? (ii) has it found a way to combine that application with other applications, to produce a sustainable revenue source that competitors cannot match?
9. Can you think of another company that is trying to follow a platform envelopment strategy? What is their foundation app? What are they trying to build on top of their foundation? Why do you believe that it will work (or that it will not work)?

**OIDD 210 — Information:
Strategy and Economics**
**The *Why* of Outsourcing —
Understanding the Changing Risk Profile of Outsourcing**
Session 8 — 13 February 2019

Questions for Class Discussion
Not for Written Analysis

1. Why is outsourcing an interesting topic for Wharton undergraduates? You are not likely to run an outsourcing operation in Asia, and you are not likely to have your jobs outsourced out from under you. Why is this a subject you need to understand?
2. The principal risks associated with inter-firm cooperation, and with investments in inter-firm coordination, have been *shirking*, *poaching*, and *opportunistic renegotiation*. How might information technology reduce the possibility for shirking? How might use of IT in place of other investments in inter-firm coordination reduce the risk of opportunistic renegotiation? What are the implications for a firm's decision to produce internally or procure outside the boundary of a firm? That is, how might the *amount* of outsourcing be altered?
3. We have claimed that IT for monitoring and coordination has increased the amount of outsourcing. What effects might the increased use of IT in managing outsourcing relationships have on the duration of contracts and the number of competing suppliers used? That is, how might the *nature* of outsourcing be altered?
4. What are the implications of increased outsourcing for *productivity* of the global economy or of national economies?
5. What are the *stresses* that outsourcing might induce in existing corporations? What problems might organizations have in achieving the new optimal balance between production and procurement?
6. What are the implications of these shifts — in the balance between spot market purchases and inter-firm coordination, and in the balance between internal production and external procurement — for business school curriculum design?
7. How has the move to eCommerce, intellectual assets, the internet, and cooperation for rapid market entry altered the role of poaching? How might Google engage in poaching when it *spiders* websites like newspapers and Yelp? How might Amazon engage in poaching when it allows companies to sell products through the Amazon Marketplace?

OIDD 210 — Information: Strategy and Economics

The Power of Certainty — Resonance Marketing³

Session 9 — 18 February 2019

Questions for Class Discussion Not for Written Analysis

1. What are the factors leading to hyperdifferentiation? What is the relationship between hyperdifferentiation and resonance marketing?
2. (i) Why does a consumer's willingness to pay for a product depend both upon the product's location in the "product attribute space" and the consumer's own location in that space? [In other words, think about the drivers of the triangle-shaped willingness to pay curve.] (ii) Why does a reduction in the consumer's uncertainty about a new product's location in product attribute space increase the customer's willingness to pay for those new products that are most suitable for him or her? [In other words, why is there a curved portion in the center of the curve when uncertainty is introduced?] (iii) Why does reduction in uncertainty have little or no effect on consumers' willingness to pay for products that do not represent a good fit with their preferences? [In other words, why does the curved portion usually not affect the outer edges of the triangular willingness to pay curve?]
3. Why do we say that for resonance marketing it does not matter how many customers like you or how many hate you; it only matters how many customers love you?
4. [Some customers have high valuation for some goods, or high **V**, which means that they place a higher valuation on specific products that they truly want than some other buyers do, and which also means that they will pay more to get exactly what they want. High **V** customers are also usually high **T** customers, meaning that they are more significantly affected by compromise. A customer with high **T** will greatly lower his or her willingness to pay for a product that represents a compromise; the greater the customer's **T**, the more the customer discounts because of the distance between his or her ideal product and the actual location of the product in its product attribute space. In brief, high **V** high **T** customers will be willing to pay more for perfection, but will also reduce their willingness to pay by a greater amount for products that deviate from their ideal choice.] (i) Why does a given level of uncertainty produce a greater impact on willingness to pay for high **V** high **T** customers than the same level would for low **V** low **T** customers? That is, why does a given amount of uncertainty produce a greater reduction in willingness to pay among high **V** high **T** customers, and why does a given reduction in uncertainty likewise restore more willingness to pay among these customers? [You can answer this simply with the details presented above; you do not need to make additional behavioral assumptions.] (ii) Why is the greater impact of uncertainty reduction on high **V** high **T** customers extremely significant to a business considering the launch of new and more expensive products?

³ There will be short notes posted for this discussion session.

5. Why are resonance products more likely to be snacks, soft drinks, beer, blue jeans, or other small-ticket consumable items? (ii) The Toyota Prius was intended to be a resonance automobile. Is it? (iii) Why are there so few big-ticket resonance products? (iv) Can resonance products be either niche or mass market?
6. Almost all of Amazon's sales are in the fat part of the distribution and *not* in the long tails. If that is true, how does having long tail offerings help Amazon compete?
7. Comment on the importance of resonance marketing to *real* companies. (i) Does the presence of resonance products affect grocery stores and department stores? (ii) Does the presence of resonance products affect the strategies of established consumer product companies? Are there categories where growth and profitability of the fat spots is threatened by the accumulation of competitors' sweet spot offerings? (iii) How should P&G, Lever, or Pepsi respond to the growth of sweet spot offerings?
8. What if this resonance marketing theory is all wrong? What if consumers can still be manipulated by ads and company-sponsored messages, as long as these messages successfully present themselves as community-generated content? [False community content is also fake grass-roots support, and for obvious reasons it is called *astro-turfing*!] (i) How would successful astro-turfing affect Budweiser, Miller, and Coors as they attempt to enter the high-margin craft brewing marketplace? (ii) How would successful astro-turfing affect small craft brewers like Victory, Dogfish Head, Ommegang, Stone, and others that have never invested in advertising?
9. What if this theory were all wrong. People smoked even when information was available to them. People seem amazed when they learn that McDonalds Chicken Nuggets are made of processed emulsified chicken protein and binders, not chicken fillets. They seem amazed to learn that McDonalds fries are made with natural beef flavor and are not vegetarian. And this lack of knowledge about fast food no doubt is contributing to a number of America's health problems. Do we not know, which means Resonance Marketing is wrong. Or do we not care, which does not mean that Resonance Marketing is wrong, just that some of us have different preferences and different tradeoffs.

**OIDD 210 — Information:
Strategy and Economics**

**First Thoughts on Finding a Business Opportunity,
Preparing a Business Plan⁴**

Session 10 — 20 February 2019

**Questions for Class Preparation
Not for Written Analysis**

1. What are some major frustrations in your life? How could you build an information-based business to address them? What opportunities do you see to use information, databases, mobile service delivery, or other innovative combinations of technology, to offer products and services that would address these frustrations?
2. Why would others value these offerings?
3. Could you actually bring them to market? What resources would you need? How would you get them?
4. What interests you? What do you want to do that offers an opportunity to use information, databases, mobile service delivery, or other innovative combinations of technology, to offer products and services that interest you? Once again, why would others value these offerings? Could you actually bring them to market? What resources would you need? How would you get them?

⁴ There are no posted class notes for this session.

**OIDD 210 — Information:
Strategy and Economics
Quantitative Analysis of Resonance Marketing**

Session 11 — 25 February 2019

**Questions for Written Analysis
(Questions Span Several Pages)**

<<To be provided>>

**OIDD 210 — Information:
Strategy and Economics**
**The How Not of Outsourcing:
Stasis Bank Case**

Session 12 — 27 February 2019

Questions for Case Discussion
Not for Written Analysis

1. [The environment of financial services firms in which STASIS operated changed even more rapidly than its software vendor anticipated, with new entrant banks providing superior services and targeting them at the Bank's most attractive accounts, and regulators rewriting the rules for all competitors.] (i) What form or forms of development risk would rapid change normally create in a large development effort? (ii) Why did STASIS officers feel that their contract with Leeson protected them from the risks associated with rapid change? (iii) Why wasn't Leeson worried about destroying its existing reputation as a software vendor in STASIS's market? That is, why were they not worried about destroying relational capital?
2. [Ultimately, Bank officers discovered that their software vendor had misrepresented both the state of its systems (unfinished), and its banking expertise (rudimentary) but by then the officers had few options.] (i) How could the Bank have protected itself with better pre-contracting due diligence? (ii) How could it have protected itself with better design of the contract? (iii) How could it have protected itself better at the meeting with Leeson's Chairman? (iv) [Even when the Bank knew Leeson was going to have serious difficulty completing the project it tried to stay with the vendor.] Why was the Bank unwilling or unable to terminate its contract for so long and unwilling or unable to switch vendors, despite schedule slippage and high costs?
3. Could something like this ever happen again? Are contracting risks so well known that there are no contractual surprises, no contract disputes of insufficiently specified details, and no possibilities for post-contractual abuse? (i) Review the overview of the litigation between Walker Digital (Priceline) and Microsoft (Expedia)⁵. Which of the three forms of abuse does this appear to be? (ii) Review the details of the Heparin contamination from Chinese suppliers⁶. Which of the three forms of abuse is this? (iii) When MasterCard and Visa were first introduced their services were almost free for merchants, but now that merchants are dependent upon them, fees are much, much higher. When Sabre and Apollo were first introduced they were free for airlines, but when airlines became dependent on Sabre and Apollo for ticket sales, fees were introduced and then raised. Which form of dependence is this? (iv) Google's repricing of keywords is similar to the credit card and reservations examples. How could this problem occur after the problems were so well-known?
4. [At present there is enough work for all outsourcing vendors in India, which reduces

⁵ www.ecommercetimes.com/story/1955.html.

⁶ <http://online.wsj.com/article/SB10001424052970203960804577239624228625522.html>.

- the incentives for successful vendors to misbehave and risk their reputations.] (i) What problems are created for vendors in fully competitive outsourcing markets? (ii) What problems might you foresee for clients in the future if there is a serious reduction in the demand for outsourcing from Indian firms?
5. [Doesn't cloud computing make this case hopelessly out of date?] (i) Doesn't IaaS solve all problems with infrastructure-based vendor holdup? (ii) Doesn't SaaS solve all problems resulting from buying software, including being deceived by vendors selling incomplete systems? (iii) Doesn't the combination of IaaS and SaaS solve all problems related to vendor-holdup? Explain all three of your answers.
 6. The behavior of gases undergoing combustion — things like nozzle design, turbulent flow, and the relationships among temperature, pressure, and fuel-to-air ratio — are quite complex and require advanced mathematical studies. Questions like “could I wear that sweater to church on Sunday” seem much more straight-forward. Which would you expect to find easier to outsource to a skilled business process outsourcing firm in Hyderabad, Bangalore, or Manila?
 7. Whenever Kevin Barry, SVP at Depository Trust Company, sent a completed software specification downstairs, he knew that any ambiguities would be resolved by development team members coming upstairs to his office with questions and requests for clarifications. Fortunately, after years or even decades in the securities industries, his dedicated team of professional developers knew Kevin, DTC, and the nature of DTC's work very well. His professionals understood when a spec was complete, and when it was not, sometimes better even than the team that developed it. What problems would you expect to see when development was shifted to India and *Elevator-Net* was no longer available for interactions? How might this be related to what Accenture's Paul Nunes calls the *Rise of Near Sourcing*?

**OIDD 210 — Information:
Strategy and Economics**

Making the Technology Investment Decision

Session 13 — 11 March 2019

**Questions for Class Discussion
Not for Written Analysis**

1. What is the role of subjective and qualitative analysis in making the decision to implement strategic information systems projects? Why can't all strategic systems investments be justified through use of precise and accurate verifiable data?
2. What problems might be encountered trying to justify systems investments without such hard data? How can this best be managed?
3. What is the role of *strategic necessity* in justifying systems investments? Can systems create value for your customers and still not lead to additional profits or even to additional revenues? What are the limitations of attempting to justify investments by appealing to "strategic necessity" for the firm?
4. In class we will discuss *Strategic Chunkification*, the division of a large investment in information technology into two phases, where the first phase investment will be made early and unconditionally, and the second phase investment will be made later, and only if the conditions that emerge over time have justified continuation. (1) Relate the concept of the phase 1 investment to a strategic option. Why might the phase 1 investment be made, even if the firm knows there is a chance that it will never be completed or used? (2) If the firm later does decide to go forward with the phase 2 investment, what is the value to the firm of having made the phase 1 investment earlier? (3) Describe situations in which this two-phase strategy might make sense. That is, what are the factors, such as expense, duration, or others, that might characterize the two phases in order to make this sort of investment strategy valuable to the firm?

**Questions for Written Analysis
(Questions are continued on the next page!)**

<<To be provided>>

**OIDD 210 — Information:
Strategy and Economics**
Working on Your Business Plans
Session 14 — 13 March 2019

<<Discussions scheduled in my office to discuss progress
on your business plan assignments>>

**OIDD 210 — Information:
Strategy and Economics**
**Information Goods as a Strategy — Monetizing the Net
Beyond Advertising⁷**
Session 15 – 18 March 2019

Questions for Class Discussion
Not for Written Analysis

1. Is the problem with advertising in traditional mass media the fact that no one watches television or reads magazines? That is, is the problem caused by no one viewing the *media*, or by no one viewing the *ads*? If the problem really is with the message, what happens when you try to advertise on the internet? Will the commercial messages have more success?
2. What alternative mechanisms are available for monetizing the internet and operating online businesses other than advertising? Is the future of everything really advertising? If advertising is seen as ineffective, would that really *Break the Internet*?
3. How does advertising create brand awareness and a perception of quality? Is Google's array of paid search mechanisms a form of advertising, no different from charging a premium price for billboard in a prime high traffic location? Or might paid search be seen as something somehow different from advertising?
4. What is the future of online social networks? Are they a form of interpersonal communication? A form of entertainment? A form of boredom relief, like CB-radios, which were obliterated by better in-car entertainment systems? Or a fundamental change in human interaction, like the telephone?
5. What is the future of advertising and the undisguised use of commercial messages in social networks? When did "popping the question" come to mean offering to sell your beloved a new cell phone or other electronic device? Is Facebook's billion dollar profit figure the wave of the future or a short term anomaly?
6. When can mobile promotional messages be really useful to the recipient? What are attributes of a perfect mobile ad?
7. Why might mobile promotional campaigns become even more expensive for some service providers, like restaurants than traditional keyword auctions for search are now, and even more dangerous for them?
8. Why might all of the data collection used in targeted ads ever be worse than an annoyance to the recipient? Isn't it always better for the recipient to have only perfectly targeted ads? How might perfectly targeted ads be dangerous to the recipient?

⁷ There are short notes posted for this discussion session.

**OIDD 210 — Information:
Strategy and Economics**
**Two-Sided Markets, Platform Envelopment, and
Third Party Payer Business Models**
Session 16 — 20 March 2019

Questions for Written Analysis
(Questions are continued on the next page!)

Is this, like, the greatest business model, ever?

<<To be provided>>

**OIDD 210 — Information:
Strategy and Economics**

Review Session before In-Class Mid-Term Examination

Session 17 — 25 March 2019

**Questions for Class Discussion
Not for Written Analysis**

1. What questions on the posted sample exam would you like to discuss?
2. What do you think are the most important concepts covered in the class?
3. Which do you feel need more discussion before you can be fully comfortable about taking the mid-term examination next class?

**OIDD 210 — Information:
Strategy and Economics**

In-Class Mid-Term Examination

Session 18 — 27 March 2019

**OIDD 210 — Information:
Strategy and Economics**

Presentations of Preliminary Business Plans

Session 19–20 — 1-3 April 2019

Guidelines for Presentations will be Posted Online

**OIDD 210 — Information:
Strategy and Economics**

Review of Mid-Term Examination

Session 21 — 8 April 2019

**OIDD 210 — Information:
Strategy and Economics**
**Redesign of the Organization:
Discussion of SNM Pharmaceuticals**
Session 22 — 10 April 2019

Questions for Case Discussion
Not for Written Analysis

1. It looks like your firm is about to experience Death by Design. The incentives you provide each unit within the firm are now totally misaligned with the strategy the firm needs moving forward. How can this happen?
2. If you know the incentives of key personnel you can probably predict their behavior and the problems that they will create within the organization. (i) What problems at SNM Pharmaceuticals are created by the incentives it provides for the Sales department? (ii) By the incentives of the Manufacturing Department? (iii) By the incentives of Inventory Management? (iv) By the incentives it provides to customers themselves?
3. Assume that while the 30 day lock-in on manufacturing reflected historical limitations on scheduling software and materials procurement, but that these are no longer significant constraints today. (i) What are the simplest behavioral changes you could cause, anywhere in the organization, that would improve Manufacturing's ability to meet demand? (ii) What is the simplest change you could make to supply or inventory management that would improve SNM's ability to meet demand?
4. (i) What incentive changes for Sales would facilitate the change you proposed in 3.i? (ii) What incentive changes for Customers of SNM Pharmaceuticals would facilitate achieving the changes proposed in your answer to question 3.i?
5. "Do you feel lucky?" What information should SNM's Sales personnel have in order to allow them to benefit from the incentive changes proposed in your answers to question 3?
6. Plover, a distinguished manufacturer of Splash and other fine detergent and laundry products, has a very different incentive for the Manufacturing group. Manufacturing is evaluated and provided with incentive bonuses based solely on order fill rates. Needless to say, there is no 30-day lock in on manufacturing schedules here! Additionally, to help improve fill rates, Manufacturing has been encouraged to treat any order with less than 10 days lead time as an urgent highest priority order, and to do what ever is necessary to assure that it is filled. (i) What behavioral differences would you expect to observe when you compare Plover to SNM? (ii) What problems would this create for the firm? (iii) What incentive changes would solve these problems? (iv) What information would be needed to support these incentive changes?

Questions Continued on Next Page

7. Great Benefits Auto Insurance has long sold its products through independent agents

who sell product both from the company and from its competitors. It has started having difficulty competing against online companies like Geico and Progressive. It feels it has a better product than either, although it does not have Flo or a Gecko constantly reminding customers that Great Benefits' products are cheaper. Senior management has been trying to assess the impact of several options on its agents and on the firm's performance. (i) What effect would result from GB's beginning to sell online to cut its distributions costs, and thus placing itself in competition with its own agents? (ii) What would happen if it slashed payments to its own agents to reduce distribution costs? (iii) What would happen if it froze hiring of new agents, allowed natural attrition to reduce the number of agents, and provided the remaining agents with extensive computerized support? How might this allow it to compete more effectively? (iv) How different would your answer be each of the preceding parts of this question if you were asked about a door-to-door sales company like Avon?

8. Briefly the market capitalization of Charles Schwab exceeded that of Merrill Lynch, as if a discount online broker was more valuable than a full service financial services firm. This was based on the belief that Merrill Lynch would never be able to implement an online trading system of its own. (i) Were there any *technical* reasons why Merrill Lynch could not figure out how to develop online trading systems? (ii) Were there any reasons why their *account executives* might have been able to get Merrill Lynch to *delay* implementing online trading systems? (iii) Were there any reasons why Merrill Lynch was eventually going to be *forced* to implement online trading systems? (iv) Once Merrill Lynch decided to *implement* online trading systems, what would happen to the revenue stream of account executives, whose income was generated by trading fees? (v) How could the firm respond, in order to protect and preserve its account executives?

**OIDD 210 — Information:
Strategy and Economics**
Special Topics of Interest — To Be Determined
Session 23 — 15 April 2019
Questions for Class Discussion
Not for Written Analysis

**OIDD 210 — Information:
Strategy and Economics**

**Learning To See Alternative Worlds —
The Power of Scenario Analysis When Dealing
with Strategic Uncertainty**

Session 24 — 17 April 2019

**Questions for Class Discussion
Not for Written Analysis**

1. How can we defend the use of scenario analysis and planning based on ignorance, rather than planning based on all available data? How can ignoring quantitative analyses ever improve decision-making?
2. What is the relationship between using scenarios as a mechanism for driving “the forgetting organization” and organizational creativity? How can ignorance ever improve creativity? How can deliberate forgetting ever improve creativity?
3. And yet the best scenarios and the best scenario analysts almost always draw from history. How do we reconcile ignoring data with remembering history?
4. Once we have a set of scenarios, what do we do with them? Do we take the average of all four, and prepare for the average? Do we prepare for all of them? Do we look for common features and requirements that will be present in all of them and do only that?
5. How do you manage the scenario process when you have an executive who feels that his insight is good enough to rule out one or more scenarios?
6. How do you “*avoid the trap of expertise?*” How do you start the scenario process when everyone in the room is firmly grounded in the current reality and its current strategies?

**OIDD 210 — Information:
Strategy and Economics**
**Scenario Assignment —
Using Scenarios to Manage Uncertainty⁸**
Session 25 — 22 April 2019

Questions for Case Discussion
Not for Written Analysis

1. Assume for the moment that Chinese consumption patterns begin to look more like those in the West, in which consumption is as much for personal delight as it is for public signals of status, but that foreign brands remain more enjoyable and more trusted. This is the scenario we called *Moet Chandon's Wonderful Adventure*. (i) What could cause this scenario to emerge? (ii) How would you know that this scenario had started to emerge? What are your early indicators of this scenario? (iii) How would this affect the strategies of retailers? (iv) How would this affect foreign manufacturers who imported their products into China? Who would be best positioned? (v) How would this affect foreign manufacturers who actually manufactured their products in China? (vi) How would this affect domestic manufacturers? What sorts of firms would be best positioned?

2. Assume for the moment that Chinese consumption patterns begin to look more like those in the West, in which consumption is as much for personal delight as it is for public signals of status, but that domestic Chinese brands are now seen as more enjoyable and more trusted. This is the scenario we called *World's Largest Domestic Market*. (i) What could cause this scenario to emerge? (ii) How would you know that this scenario had started to emerge? What are your early indicators of this scenario? (iii) How would this affect the strategies of retailers? (iv) How would this affect foreign manufacturers who imported their products into China? Who would be best positioned? (v) How would this affect foreign manufacturers who actually manufactured their products in China? (vi) How would this affect domestic manufacturers? What sorts of firms would be best positioned?

⁸ There are no posted class notes for discussion sessions.

**OIDD 210 — Information:
Strategy and Economics**
No Class — Work on Final Project Presentations
Session XX — 24 April 2019
Guidelines for Presentations will be Posted Online

**OIDD 210 — Information:
Strategy and Economics**
Final Project Presentations
Session 26 — 29 April 2019

Session 27 and 28 — 25 April <<Double Evening Session>>

Class will run from 6 to 8.30. Sandwiches and soft drinks will be provided. In order to be polite to students presenting in the evening session, attendance will be mandatory unless individual student arranges excuse in advance. Feedback at these sessions will be essential in development of final projects.

Additional Preparation Questions and Assignments for each day will be posted later in the semester, on Monday of the week before they will be discussed. There may be last minute postings based on breaking news stories or litigation.

**OIDD 210 — Information:
Strategy and Economics**
Course Summary and Integration

Session 29 — 1 May 2019

Questions for Class Discussion
Not for Written Analysis

1. What are the most important patterns for the impacts of information technology on business strategy that we have discussed in this class? How might you be able to use them as you become progressively more senior in the management of your organization?
2. What are the greatest barriers that prevent the rapid development of new strategies and the redeployment of resources as the business environment changes?
3. How does the digital transformation of everything affect consumer behavior? How does it affect the strategies available to firms selling to consumers? How does it affect the structure of industries and the role of internal production and outsourcing?
4. How have modern gateways systems affected the future of competition law?
5. How have modern social networks and the greater importance of participation externalities affected the future of competition law? What are the implications for Europe?
6. How have privacy violations become the basis of a large number of businesses and indeed of entire business models? If they lead to more free goods and services, how could anyone object? How does this affect the economies of nations that enforce privacy when they compete with companies from countries that do not enforce privacy laws?