Summary and Objectives

We are at the early stages of an information revolution where information technologies are redefining business models, transforming industries, creating new markets, and generating a whole new “space” where new human communities, behaviors, norms, and regulation are just beginning to emerge. Information technologies are an increasing part of developing new products and services, of integrating business functions, and of managing customer relationships. IT-driven disruptions in business models are frequent.

In such a business environment, decisions about information technologies are increasingly central to business success. In more stable, “industrial age” industries, business models were relatively stable, and the central basis for success with IT investments involved aligning them with complementary organizational and process changes. However, when IT transforms an industry, it realigns the industry’s structure and boundaries, and changes the fundamental business models that work.

The course is case oriented. The cases have been chosen to cover a range of industries and transformations of business models over the last ten years, and span search advertising, retailing, digital music, telecommunications, the IT industry, entertainment and gaming, and social networking. The objective is to end up with a framework that you will find useful in generalizing across contexts in which information technologies are changing the nature of business and the world. Considerable emphasis is placed on new emerging disruptions including social networks, platform competition, the long tail, data mining, crowdsourcing and the economic impact of search.

This course will not make you an IS technical specialist; its emphasis is on industry and managerial issues. However, through an overview of the technologies, activities, and applications of IS, this course will help you to acquire an appreciation for the possibilities created by IT in tomorrow’s markets, organizations and society. We personally believe that every future executive needs to learn how to think about how IT transforms business, so recommend it to you independent of your planned career path. Upon completion of this course you should have:
• An understanding of the major information technology enabled business models that have emerged over the past decade.
• An understanding of how information technologies change business models and how to anticipate these changes.
• An understanding of how information technologies transform industries, and a framework for thinking about how to predict whether IT will transform yours.
• A perspective on how information technology can create new markets and social structures.
• An appreciation of the many organizational consequences resulting from alignment (or lack thereof) of IT strategy and business models.

Expectations

Students are expected to be properly prepared for the class and to have thoroughly read the assigned readings and cases. Students are expected to participate actively in class discussion.

Course requirements

There are three requirements in this course:

1. Discussion Questions: Each week, you will typically be assigned pre-class work a week in advance of the session. These will be a mix of individual and group assignments. You will be asked to submit answers to discussion questions before the class session begins via blackboard.

2. Group Project: Create a New IT-enabled Start-Up: Your project will involve analyzing and formalizing a strategy to launch a new IT-enabled start-up. It will involve generating an idea for a new IT-enabled business, forming the appropriate team with the human capital assembled in the class, analyzing the market opportunity, the disruption the venture intends to capitalize on, business model development, competitor analysis, and intellectual property development and defense. The key deliverables will include:
   (A) Team Formation – To form a balanced team of 3-4 members with complementary skills and distinct responsibilities that will represent the management team of the company. (10%)
   (B) Summary and Pitch – To create a 1 page summary of the company that crisply identifies the value proposition, succinctly summarizes the venture and your execution strategy, and explains why your team is uniquely qualified to deliver on this venture. Each team will then deliver a 2 minute elevator pitch in class during a chance encounter with a super angel. (20%)
   (C) Business Plan – To create a robust and well researched 15-20 page single spaced business plan that describes the company and why it will succeed. (30%)
   (D) Slide Deck and Presentation – To prepare a slide deck of 10-15 slides that crisply and professionally describes the business, the value proposition and the elements developed in the business plan. Each team will give an in class presentation about the company designed for a VC audience. (Slide Deck: 20%; Presentation: 20%)

3. Post-class analysis: You will abstract and summarize crisply the main themes, insights and intellectual takeaways from the course, perhaps in order of significance to you personally.

Grading

Individual/Group Pre-Class Assignments: 15%
Participation in Class Discussion: 30%
Group Project: 40%
Post Class Analysis: 15%
## Class Schedule

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<td>Introduction</td>
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<td>S2</td>
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<td>Does IT Matter? Managing IT for Business Value</td>
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<td>S3</td>
<td>2/23</td>
<td>Enterprise 2.0 Managing Knowledge Work in a Digital Age</td>
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<td>S4</td>
<td>3/2</td>
<td>Diamonds in Data Data Mining and Competing on Analytics</td>
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<td>S5</td>
<td>3/9</td>
<td>The Influentials Hypothesis Social Network Marketing and Social Media</td>
<td>Duncan Watts</td>
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<td>SPRING BREAK</td>
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<td>S7</td>
<td>3/30</td>
<td>The Great Equalizer? Search and Competition in the Internet Era</td>
<td>1-Page Venture Summary; First “Pitch”</td>
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<td>S8</td>
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<td>Platform Competition Platforms, Two Sided Markets and Network Effects</td>
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<td>5/11</td>
<td>Final Papers Due</td>
<td>Final Papers</td>
</tr>
</tbody>
</table>
Reading List

Session 1: Introduction (2/9):

Session 2: Does IT Matter? Managing IT for Business Value (2/16):
4. “Generating Premium Returns on Your IT Investments” Peter Weill and Sinan Aral; MIT Sloan Management Review; Vol. 47; No. 2; Winter 2006.
6. “IT Assets, Organizational Capabilities and Firm Performance: How Resource Allocations and Organizational Differences Explain Performance Variation” Sinan Aral and Peter Weill; Organization Science; Vol. 18; No. 5; September-October 2007.

Session 3: Enterprise 2.0: Managing Knowledge Work in a Digital Age (2/23):

Session 4: Diamonds in Data: Data Mining and Competing on Analytics (3/2):
Session 5: The Influentials Hypothesis: Social Network Marketing and Social Media (3/9):

17. “Small Change: Why the Revolution will not be Tweeted” Malcolm Galdwell; The New Yorker; October 4, 2010.
18. “Network Based Marketing: Identifying Likely Adopters via Consumer Networks” Shawndra Hill, Foster Provost and Chris Volinsky; Statistical Science; Vol. 21; No. 2; May 2006.


21. “Free! Why $0.00 is the Future of Business” Chris Anderson; Wired Magazine; February 25, 2008.

Session 7: The Great Equalizer? Search and Competition in the Internet Era (3/30):

27. “Wine Online: Search Costs Affect Competition on Price, Quality and Distribution” John Lynch and Dan Ariely; Marketing Science; Vol. 19; No. 1; Winter 2000.
28. “Frictionless Commerce? A Comparison of Internet and Conventional Retailers” Erik Brynjolfsson and Michael Smith; Management Science; Vol. 46; No. 4; April 2000.

Session 8: The Long Tail: From Markets of Millions to Millions of Markets (4/6):

36. Case: “PayPal Merchant Services” HBS Case # 9-806-188.

Session 10: The Wisdom of Crowds: Crowdsourcing and Communities (4/20):
38. “Evidence for a Collective Intelligence Factor in the Performance of Human Groups” Anita Wooley, Christopher Chabris, Alexander Pentland, Nada Hashmi and Thomas Malone; Science; September 30 2010; Science Express 1193147.

Sessions 11 & 12: Show Me the Money!: Student Presentations (4/27 & 5/4)
Appendix A: Group Project

Instructions and guidelines
For your course project, you will analyze and formalize a strategy to launch a new IT-enabled start-up. It will involve generating an idea for a new IT-enabled business, forming the appropriate team with the human capital assembled in the class, analyzing the market opportunity, the disruption the venture intends to capitalize on, business model development, competitor analysis, and intellectual property development and defense.

The key is that the new venture is IT-enabled. Thus, you will use insights from the class to inform the development of your new business idea. How does IT change markets, disrupt industries and present new value propositions? Use this knowledge to drive your idea. How does one the use IT to execute strategies and scale, to harness network effects, to motivate, manage and measure knowledge worker productivity? Use these learning to drive your execution.

Deliverables

1. **Team** – Form a balanced team of 3-4 members with complementary skills and distinct responsibilities that will represent the management team of the company.

2. **Summary and Pitch** – Create a 1 page summary of the company that crisply identifies the value proposition, succinctly summarizes the venture and your execution strategy, and explains why your team is uniquely qualified to deliver on this venture and briefly. Each team will then deliver a 2 minute elevator pitch in class during a chance encounter with a super angel.

3. **Business Plan** – Create a robust and well researched 15-20 page single spaced business plan that describes the company and why it will succeed. Key components of this business plan will include:

   1. **New Venture Idea:** a) What existing need or want does the venture address? What is the problem you solve? b) Describe the service/product? How will it change the way people live, work or do business? c) Who are potential users and/or customers for this? d) What makes it unique and why will customer’s buy/use it?
   2. **Technology and Intellectual Property (IP):** a) What is the technology at the core of this venture? b) What is the background of the invention and who are the principal investigators/developers? c) What IP protection exists (patents, copyright, etc.)? d) What is the state of the technology (idea/concept, in research, proof of concept, working prototype, product in development, in trials, etc.)?
   3. **Business Model:** a) What are your sources of revenue? b) Are your users and buyers one in the same? c) How can this become a very large business?
   4. **Competitor Analysis:** a) Who are the existing and potential competitors? b) What is your competitive advantage?
   5. **Management:** a) What are the team’s key skills and areas of expertise for executing this plan? b) What are the key skills and areas of expertise you need to add to your management team?

4. **Slide Deck and Presentation** – Prepare a slide deck of 10-15 slides that crisply and professionally describes the business, the value proposition and the elements developed in the business plan. Each team will give an in class presentation about the company designed for a VC audience.
Appendix B: Post-Class “Themes” Paper

Instructions and guidelines

Write a paper that summarizes what you see as the main ideas, insights and intellectual themes from the course. There are many different ways in which you could approach this. One way might be to build on the discussion following “IT Doesn’t Matter” which we ended the course with, reflect on the technological constants (the representation of things as information, the sustained increase in processing power/bandwidth and the modular nature of software) and their consequences, relate these to the cases, frameworks and discussions of the course, and articulate the themes you end up with. Another way might be to start with the 8 questions we began the course with (and which are available on Blackboard), pick a subset of them, relate them to the cases, frameworks and discussions of the course, and structure your paper as a set of answers to the questions. A third way might simply be to think about what you have learnt and describe it crisply.

You are free to choose an alternative approach. Whichever way you approach it:

• Articulate your ideas concisely and crisply. There’s no need to repeat your cases analyses, summarize Porter’s forces, or draw out your analysis into many pages because you want it to be substantive. Two to three pages (reasonably-sized font and spacing) is fine. It can be longer if you’d like, but remember that we’re looking for the themes, not the details.

• Take a personal perspective. You don’t need to try and include everything we might have covered. Each of you might have a slightly different take on the course, and what each of us retains is influenced in part by our backgrounds and interests. Besides, some of the eventual learning from the course will manifest itself over time in the future, as you face situations that force you to think about or make a decision about IT and its consequences. In a nutshell, there are no one set of “correct answers” that need to be in your paper.

• Think about what you’ve learnt that you might find useful to you a few years down the road. This might be a good way of separating the details from the themes.

Deliverable

Paper as a Word file one week after the last class session.