

Design as Competitive Strategy

MBA 290D/ENG 290 – 2 units
Spring 2009, Mondays 2-4pm, C220 Cheit

Draft – Subject to refinement

Overview

- Instructor:** Jon H. Pittman
email: pittman@haas.berkeley.edu
phone: (415) 613-8719
- Office Hours:** Monday 1-2 and 4-5
<location TBD>
- Class Format:** The class will consist of lectures, group discussions, a group design project and several short assignments – to put the ideas into practice.
- Class websites:** **bSpace.edu** – MBA 290D – Design as a Competitive Strategy
Study.net
- required reading - http://www.study.net/r_mat.asp?crs_id=30011570
 - supplemental reading - http://www.study.net/r_mat.asp?crs_id=30011908
- Required Text:** The required text has been chosen to expose students to design methods and theory. Students will be expected to read the book as well as one article and one case on the course reader. Readings will be discussed in class. Supplemental readings will be provided for students who wish to delve deeper into the topics discussed in class. Students are not required to read the supplemental readings but are encouraged to do so to enhance their learning and classroom participation.
- The Universal Traveler**. A Soft-Systems guide to creativity, problem-solving, and the process of reaching goals. Koberg and Bagnell, Updated Classic Edition, Crisp
- Basis for final grade:** 30% class participation
40% group design project
30% individual assignments

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Course Description

Companies are increasingly looking to design as a source of competitive advantage. In a world made increasingly competitive through globalization and technological advancement, design is a differentiator that creates customer value and competitive separation. In fact, innovation is the only sustainable form of competitive advantage. Design is the process of systematically creating successful innovations. Many think design is only about form – the creation of beautiful objects - but good design balances form, function, and performance. Further, the kind of design thinking that is applied to products can also be applied to services, processes, customer experiences, and business models.

The purpose of this course is to help students learn design thinking – the skill to systematically create innovative solutions to business problems. The course will explore the relationship between business strategy and design. Students will learn:

- the competitive value of design and innovation
- how to evaluate the quality and value of design
- how to understand unarticulated customer needs
- design thinking skills, processes, and tools
- how to apply systematic and holistic design thinking to business problems

This course complements the Management of Technology (MOT) core curriculum New Product Development (NPD) course. Whereas the NPD course focuses on specifically product development, this course applies design thinking and methods to a broader business context.

Through readings and cases, students will learn how design thinking is applied to a variety of business problems. They will develop design thinking skills through a series of short exercises. They will have the opportunity to work with a team on a project to comprehensively apply design thinking to a business problem and create a solution in the form of a product, service, customer experience, or business model.

Students who successfully complete the course will possess a deep understanding of the role of design as a competitive weapon, a set of design thinking skills and methods, and a tangible result from their team design project. They will be prepared to address business challenges in a creative way and will possess unique skills that will be increasingly valuable in a competitive world.

Instructor Bio

Jon Pittman is VP of Market Development at Autodesk, Inc. He has over 25 years of experience in corporate strategy in software companies that serve designers from various disciplines such as architecture, engineering, and media. He was educated and licensed as an architect. He holds a Bachelor of Architecture and MBA from the University of Cincinnati and an MS in Computer Graphics from Cornell.

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He has taught at Art Center College of Design and Cornell University. He has extensive international experience and passionately believes that design can both make the world a better place and help business to succeed competitively.

Assignments and Evaluation

Collaboration. Design thinking is a collaborative activity. Innovative design solutions come from the confluence of diverse experiences, disciplines, and perspectives. To be an effective innovator you need to be able to work creatively with others and to communicate your ideas. Thus, a significant amount of the work you do in class will be with others. Design is both hard work and fun. You will be expected to work hard and enjoy the work you do!

Readings. One book, one article, and one case are required reading. These readings provide essential background for the class and are designed to supplement the lectures. You are expected to read the required readings and cases prior to class and be prepared to discuss them in class.

Supplemental readings are also provided for each class session in the event you wish to delve deeper into a given topic. You are encouraged but not required to read them. They will provide additional background and insight for classroom discussion.

Class participation. Classroom participation is very important and comprises 30% of your grade. Attendance is required and you are expected to both pay attention and participate. Powerpoints with associated lecture notes will be provided on bspace. During class, you are expected to comment on readings, lectures, cases, and other assignments. One key attribute of successful designers and executives is the ability to clearly and crisply communicate their ideas. You will be expected to do so – both formally and informally in class. My philosophy is that you all learn as much from each other as you do from me. Thus, your participation is expected.

Team design project. You will have a major design project which will comprise 40% of your grade. This project will be to solve a business problem by designing an innovative solution. I will assign the teams and will intentionally create teams with a variety of disciplines and backgrounds. You will go through a structured process with deliverables at specified intervals. This project will culminate in a team presentation to the entire class. You will be evaluated on both design process and results. Your evaluation for this project will be partially based upon a peer review by your team members. You will need to meet outside of class with your team and some time will be provided in class for team meetings.

Individual assignments. You will be responsible for completing several short individual assignments which comprise 30% of your grade.

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Class Meetings

Date	Topics and Issues	Readings and Assignments
Jan 26	<p>Design as a competitive strategy</p> <ul style="list-style-type: none"> <input type="checkbox"/> Innovation is the only sustainable source of competitive advantage <input type="checkbox"/> Design is the systematic process of creating innovation <input type="checkbox"/> Design thinking can be applied to products, services, processes, customer experiences, and business models <input type="checkbox"/> Integrative design thinking is a skill that will make you more competitive and enable you to address formidable challenges. 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Individual #1. Complete 4x8 index card with your background information in class <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design Thinking. Tim Brown. <u>Harvard Business Review</u> <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> What is Strategy? Michael Porter. <u>Harvard Business Review.</u> <input type="checkbox"/> My Stroke of Insight. Jill Bolte-Taylor. TED Video. <input type="checkbox"/> The Opposable Mind. Roger Martin <input type="checkbox"/> A Whole New Mind. Daniel Pink
Feb 2	<p>What is good design?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Good design <u>works</u> from a user perspective – it balances of form, function, and performance <input type="checkbox"/> Good design provides an integrated user experience <input type="checkbox"/> Good design is clear, legible, and memorable <input type="checkbox"/> Good design delivers superior returns and creates sustainable competitive advantage <input type="checkbox"/> Design problems are wicked problems 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Individual #2. Find and present an example of a well-designed product, service, customer experience, or business model. <input type="checkbox"/> Individual #3. Bring three potential design problems for your group project to class. <input type="checkbox"/> Team. Project team organization <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design: Innovate, Differentiate, Communicate. Tom Peters. <input type="checkbox"/> Dilemmas in a General Theory of Planning. Horst W.J. Rittel and Melvin M. Weber. <input type="checkbox"/> Lean Consumption. James P. Womack and Daniel T. Jones. <u>Harvard Business Review</u>

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Feb 9	<p>Sustainable Design <i>Guest speaker: Lynelle Preston-Cameron, Director of Sustainability, Autodesk</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Designing for sustainability requires an integrative design approach. <input type="checkbox"/> The triple-bottom line, the triple top line <input type="checkbox"/> Globalization is making sustainable design even more urgent <input type="checkbox"/> Integrative design thinking is needed to solve the world’s most difficult challenges 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #1. Team hands in three problem proposals. I will select one of the proposals by the end of class. <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>A Road Map for Natural Capitalism.</i> Amory B. Lovins, Hunter Lovins, and Paul Hawkin. <u>Harvard Business Review</u>. July-August 2007. <input type="checkbox"/> Autodesk Sustainability Report
Feb 16	No class – President’s day	
Feb 23	<p>Design Process</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design follows a systematic process that brings together left brain (analysis) and right-brain (synthesis) thinking <input type="checkbox"/> A model for integrative thinking <input type="checkbox"/> Problem-seeking and problem-solving <input type="checkbox"/> The designer’s mental model of the problem and situation play a key role in design <input type="checkbox"/> Developing a culture of prototyping 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #2. Team hands in a 3 page project brief <input type="checkbox"/> Individual #4 - IDEO Product Development- Case questions. <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>The Universal Traveler.</u> Pages 1-45, Pages 101-102 <input type="checkbox"/> Case: IDEO Product Development
Mar 2	<p>Design Methods <i>Guest speaker: Doug Look, Senior Design Strategist, Autodesk</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> User centered design, empathic design <input type="checkbox"/> How to observe users and systematically assess their needs <input type="checkbox"/> Design strategy techniques <input type="checkbox"/> User conceptual models 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #3. Team hands in a 3-page research plan describing topics of inquiry and planned research methods <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>The Universal Traveler.</u> Pages 46-65. <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>The Design of Everyday Things</u>

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Mar 9	<p>Globalization and Bottom of the Pyramid</p> <ul style="list-style-type: none"> <input type="checkbox"/> Globalization is creating an increasingly competitive world <input type="checkbox"/> Rapid urbanization and rise of the middle class in emerging economies <input type="checkbox"/> Serving the world's poor is a new (or not so new) design frontier. <input type="checkbox"/> Development economics 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #4. Interim report on your research <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Serving the World's Poor, Profitably.</i> C,K. Prahalad and Allen Hammond. <u>Harvard Business Review</u>. September 2002. <input type="checkbox"/> <u>Design for the Real World.</u> Victor Papanek.
Mar 16	<p>Environment and Experience Design</p> <ul style="list-style-type: none"> <input type="checkbox"/> Experience differentiates in environments, retail, recreation <input type="checkbox"/> The customer experience drives engagement with a product, an organization, and an environment <input type="checkbox"/> Wayfinding is critical to successful environments and experiences 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #5. Present a problem definition statement that reframes your original project brief based upon your research. <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>The Universal Traveler.</u> Pg 66-79. <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Welcome to the Experience Economy.</i> B. Joseph Pine and James H. Gilmore. <u>Harvard Business Review</u>.
Mar 16	<p>Extra Credit – Tour of Autodesk Gallery Guest Speaker: Carl Bass, Autodesk CEO One Market, The Landmark, Second Floor San Francisco 7-9PM</p>	<p>This is an extra credit event in the evening to tour the Autodesk Design Gallery in San Francisco and hear Carl Bass talk about the importance of design in the business world.</p>
Mar 23	No class – Spring break	

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Mar 30	<p>Visual Thinking <i>Guest speaker: Tom Wujec, Autodesk Fellow</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Drawing and diagramming are thinking tools, not just documentation tools. <input type="checkbox"/> Use visual language to think and communicate <input type="checkbox"/> How to facilitate design conversations using visual thinking 	<p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>The Back of the Napkin: Solving Problems and Selling Ideas with Pictures.</u> Dan Roam. <input type="checkbox"/> <u>Experiences in Visual Thinking.</u> Robert H. McKim
Apr 6	<p>Mid-term reviews</p> <ul style="list-style-type: none"> <input type="checkbox"/> Review progress on your team design problems. This class will be presentation and group discussion and critique. <input type="checkbox"/> The role of critique in design. <input type="checkbox"/> You will be evaluated on presentation style, ability to communicate the essence of the problem, and your process and progress to date. <input type="checkbox"/> You will be evaluated by both your peers and the instructor. 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #6. Present 3 alternative solutions to your design problem. Define your selection criteria and show which solution your team selected and why. <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> Universal Traveler. Pages 80-93
Apr 13	<p>Communication and Information design</p> <ul style="list-style-type: none"> <input type="checkbox"/> Communication and information design is about getting to the essence of the idea <input type="checkbox"/> Organize information for legibility and provide wayfinding and navigation aids. <input type="checkbox"/> How to make ideas stick. <input type="checkbox"/> The role of symbols and metaphor. 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #7: Present a concise – 2 page synopsis of the feedback from the mid-term evaluation. Indicate your evaluation of that feedback and how you intend to respond. <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>Making Ideas Stick.</u> Chip Heath and Dan Heath.

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Date	Topics and Issues	Readings and Assignments
Apr 20	<p>Brand and corporate identity</p> <ul style="list-style-type: none"> <input type="checkbox"/> What does the organization, product, or experience stand for? <input type="checkbox"/> A brand is a promise that is built with consistent behavior over time <input type="checkbox"/> What is brand equity? How does one get it? How does one lose it? <input type="checkbox"/> Brand dilemmas 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #8. Prototype 1 - In-class reviews of progress on design project.
Apr 27	<p>Integrative Design</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design can be a force that integrates many different disciplines and perspectives. <input type="checkbox"/> Design thinkers have transcended traditional boundaries and problem-solving styles <input type="checkbox"/> Interdisciplinary and trans-disciplinary approaches are necessary to solve the wicked design problems facing society today. 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #9. Prototype 2 - In-class reviews of progress on your design project. <p>Supplemental Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bucky Fuller. Wikipedia. <input type="checkbox"/> Charles and Ray Eames. Wikipedia.
May 4	<p>Final projects</p> <ul style="list-style-type: none"> <input type="checkbox"/> Final reviews of your team design projects – spread over two class sessions. <input type="checkbox"/> You will be evaluated on presentation style, ability to communicate the essence of the problem, your rationale for solving the problem, and the viability of your solution. <input type="checkbox"/> You will be evaluated by both your peers and the instructor. 	<p>Assignment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Team #10. Deliver a final team presentation for your project . <p>Required Reading</p> <ul style="list-style-type: none"> <input type="checkbox"/> Universal Traveler. Pages 94-99, 117-118

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Date	Topics and Issues	Readings and Assignments
May 11	Final projects and course summary <ul style="list-style-type: none"> <input type="checkbox"/> Second half of team design project reviews. <input type="checkbox"/> Summary of key course concepts <input type="checkbox"/> Challenges of design thinking in organizations. 	Assignment <ul style="list-style-type: none"> <input type="checkbox"/> Individual #5: Self-assessment and peer evaluations of your team design teammates.

Required Reading

- Book: *The Universal Traveler. A Soft-Systems guide to creativity, problem-solving, and the process of reaching goals.*** Koberg and Bagnell, Updated Classic Edition, Crisp
- Article: *Design Thinking.*** Tim Brown. Harvard Business Review. June 2008.
- Case: *IDEO Product Development***

Supplemental Materials

- Article: *What is Strategy?*** Michael Porter. Harvard Business Review. November-December 1996.
- Book: *The Opposable Mind.*** How Successful Leaders Win Through Integrative Thinking. Roger Martin, Harvard Business School Press
- Book: *A Whole New Mind.*** Moving from the Information Age to the Conceptual Age. Daniel H. Pink. Riverhead Books. 2005
- Video: *My Stroke of Insight.*** Dr. Jill Bolte-Taylor. TED Talk.
http://www.ted.com/index.php/talks/jill_bolte_taylor_s_powerful_stroke_of_insight.html
- Book: *Design: Innovate, Differentiate, Communicate.*** Tom Peters. 2005. Dorling Kindersely Ltd.
- Article: *Dilemmas in a General Theory of Planning.*** Horst W.J. Rittel and Melvin M. Webber. Policy Sciences. 1973.
- Article: *Lean Consumption.*** Harvard Business Review. James P. Womack and Daniel T. Jones. March 2005
- Article: *A Road Map for Natural Capitalism.*** Amory B. Lovins, Hunter Lovins, and Paul Hawkin. Harvard Business Review. July-August 2007.
- Report: *Autodesk Sustainability Report.*** 2008.
- Article: *Serving the World's Poor, Profitably.*** C.K. Prahalad and Allen Hammond. Harvard Business Review. September 2002.
- Book: *The Design of Everyday Things***, Donald A. Norman, Basic Books
- Book: *Design for the Real World:*** Human Ecology and Social Change. Victor Papanek. 2000. Academy Chicago Publishers.

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- ❑ **Article: *Welcome to the Experience Economy*.** B. Joseph Pine II and James H. Gilmore. Harvard Business Review. July-August 1988.
- ❑ **Book: *Experiences in Visual Thinking*.** Robert H. McKim. 2003. Thomson.
- ❑ **Book: *The Back of the Napkin: Solving Problems and Selling Ideas with Pictures*.** Dan Roam. 2008. Digital Roam.
- ❑ **Book: *Making Ideas Stick*.** Chip Heath and Dan Heath. 2007. Random House
- ❑ **Web: *Bucky Fuller*.** Wikipedia. http://en.wikipedia.org/wiki/Buckminster_Fuller
- ❑ **Web: *Charles and Ray Eames*.** Wikipedia. http://en.wikipedia.org/wiki/Ray_Eames

Resources

- ❑ www.ted.com. Annual TED (Technology, Entertainment, and Design) conference. Videos of speakers with lots of design content.
- ❑ www.businessweek.com/innovate. Businessweek innovation magazine. Lots of good content on the relationship between design and business strategy.
- ❑ www.dmi.org. Design Management Institute is an international nonprofit organization that seeks to heighten awareness of design as an essential part of business strategy.
- ❑ www.cdf.org. The Corporate Design Foundation Corporate Design Foundation, a non-profit education and research organization, was founded on the belief that design can make a major contribution both to an individual's quality of life and to a corporation's success, and that both individual and organizational interests can be served through the effective use of the design disciplines: product design, architecture and communication design. Accordingly, our mission is to improve the quality of life and the effectiveness of organizations through design
- ❑ www.autodesk.com. Autodesk is the world leader in design innovation technology. Information on software and design trends in general.