NBA 6110: Creative Design for Affordability

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Fall 2011
6:00-9:00pm Mondays
Studio: 4301/Studio East MVR
Grade: letter only

Course Overview

We talk knowingly about business innovation all the time, often in the most extreme of terms – "innovate or die" has become a mantra in today's business world. Yet, in our traditional business school curriculum, we are taught trusty strategic and marketing frameworks that have been around for generations, while techniques for developing and harnessing creativity and innovation are often overlooked.

In addition, the complex issues of environmental and social sustainability are increasingly influencing business decisions. As future business leaders, students must discover innovative ways to manage these challenges in ways that benefit business and society.

Creative Design for Affordability is a pioneering 3-credit, full semester project-based course for graduate students that applies design thinking principles to a developing-world sustainability challenge. By using design thinking exercises students will become more aware of their creativity and learn techniques to prepare them to lead or facilitate creative teams in their future careers as business leaders. Students with entrepreneurial aspirations will find this class particularly rewarding as we focus heavily on the business conceptualization process. While students interested in sustainability will enjoy the challenge of working on a global problem.

This course is offered in partnership with the K. J. Somaiya Institute of Management Studies and Research (SIMSR) in India. Cornell student teams will be paired with SIMSR students to create viable business solutions that address an environmental or social challenge in an economically disadvantaged area in Maharashtra, India. Using ethnographic techniques, each team will identify a need, design a solution, and create a viable business concept to compete in the Acara Challenge (www.acarainstitute.org). Critical to the success of the class will be student's ability to work effectively in multidisciplinary, global teams.

Students can expect to depart the semester understanding new product development processes as well as useful tools, techniques and organizational structures that support new product/service development practice. Although the course focuses on the application of these principles to new product development, they are more broadly applicable to innovation in general – of products, services, organizations, business strategies and governmental policies. This class is meant to be a real-world experience of application of design principles to the needs and solutions for sustainable enterprise.

Course Materials

Students are expected to read all of the assigned materials before each class.

Required Books

- Course pack
- Online readings posted on Blackboard

Recommended Books

- Pink, Daniel H. <u>A Whole New Mind: Why Right Brainers Will Rule the Future.</u> Riverhead Trade; Rep Upd edition (2006)
- De Bono, Edward. <u>Six Thinking Hats</u>. Back Bay Books; 2 edition (1999)
- Osterwalder, Alexander and Yves Pigneur. <u>Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers</u>. Wiley (July 13, 2010)

Course Responsibilities

Class/Team Participation (20% of the final grade): Students must plan to attend all classes. Missing more than two classes could result in a failing grade. Your participation is critical to the success of the class and team assignments. Not only is class time an opportunity to learn useful tools, techniques and organizational structures that support new product development practice, but it is a chance to learn from your team members and strengthen your team. Students will be asked to provide feedback about their teammates' contribution to assignments which will be taken into consideration when grading.

ABC Assignment (5% of the final grade): Create a VISUAL ALPHABET based on FOUND objects. *Found* is the operative word. *Not positioned, not stylized, not reworked, not manipulated.* On **September 19** each person must bring to class an electronic file of as many letters as they found to share with their team. On **September 26, 2011** each team must bring to class a hardcopy (color print) of one <u>complete</u> alphabet – all 26 visual images, one for each letter of the alphabet. Each student must sign his or her name to their respective photos and post them before class begins. (Based on an assignment developed by Sheila Danko.)

Problem Statement Video (15% of the final grade): Using the photos and videos provided by your SIMSR teammates, as well as any additional resources, each team is to create a short video (30-90 seconds long) clearly stating the NEED of the community that your team will address. Students will be asked to critique and provide feedback on their fellow classmates' videos which will be taken into consideration when grading. This is to be posted on YouTube or Vimeo and the link emailed to me by midnight, **Sunday October 22, 2011.**

Storyboard/Journey Map (15% of the final grade): Each team is to create a VISUAL story with text (similar to a graphic novel) describing their persona's interaction with the product or service that they are proposing. This is to be a sequence of drawings or diagrams that illustrates or describes the user's behavior at each major interaction of the product or service. Students will be asked to critique and provide feedback on their fellow classmates' storyboard which will be taken into consideration when grading. Electronic copy is to be emailed to me by midnight, **Sunday November 13, 2011.**

3-D Model (15% of the final grade): Each team is to create a 3-D MODEL of their product or service using items provided in the class as well as any additional items they feel are necessary to accurately depict their product. The models may be representational or conceptual. With the model students must submit a short explanation (no more than one page) of their model - what it is, why they chose to create it, and what they learned about their business or from the experience. Students will be asked to critique and provide feedback on their fellow classmates' models which will be taken into consideration when grading. Due in class on **November 21, 2011.**

Final Presentation (25% of the final grade): Each team will give a presentation (30 minutes including Q&A) detailing their product/solution and business concept. The presentation may contain video and any prototypes or artifacts that the team deems appropriate to explain their results. Special consideration will be given to teams that are able to integrate some of the tools and techniques used in class.

Students will be asked to critique and provide feedback on their fellow classmates' videos which will be taken into consideration when grading. Presentations must be submitted to me and the Acara Institute on **Sunday December 11 at midnight** (tentative) and presentations will be on **December 12, 2011** during the regularly scheduled class time. Selected teams will be invited as finalists for the Acara Challenge in February, 2012 in Minnesota with an opportunity to win a trip to India and continue developing your proposed business as part of Acara's Summer Institute.

Business Concept Report (5% of the final grade): This document should detail the proposed business concept and should not exceed 10 pages (not including appendices). SIMSR students will be required to submit this document to Acara. Your final copy is due to me electronically on **December 12, 2011 at 5pm**.

Week 1

Monday, August 29 (4301/Studio East MVR)
Topics: Course logistics, Project explanation, Intro to design
Readings:
Martin, R. (2004). "The Design of Business." Rotman School of Business: Toronto, pp. 7-11.
Martin, R. (2007). "Tough Love: Business Wants to Love Design, but It's Often an Awkward Romance," Fast Company.com.
(http://www.fastcompany.com/magazine/109/open_design-tough-love.html)
Acara Challenge: Student Guide, Chapter 1: Introduction
Caplan, R. (2005). Introduction pp xv-xx and Chapter 1: The Possibilities of Design, *By Design*, Fairchild Books: New York, pp 2-15.
Acara Institute Website: www.acarainstitute.org

Week 2

Monday, September 5 (Labor Day- No class)

Week 3

Monday, September 12 (4301/Studio East MVR)
Topics: Team Creation; Gathering Ethnographic Data – techniques and interpretation
Guest Lecturer: Hayden Kantor, PhD Candidate, Department of Anthropology
Readings:
Wasson, C. (2000) "Ethnography in the Field of Design," Human Organization.
Giridharadas, A. (2010) "The Caste Buster," The New York Times, 12/30/10.
http://www.nytimes.com/2011/01/02/magazine/02Striver-t.html?pagewanted=all
Bornstein, D (2011) "A Light in India," The New York Times 1/10/11.
http://opinionator.blogs.nytimes.com/2011/01/10/a-light-in-india/
Yardley, Jim. 2010. "With many still starving, india rethinks its safety net." *The New York Times*, August 8. http://www.nytimes.com/2010/08/09/world/asia/09food.html.
Bajaj, Vikas. 2011. "Lack of attention to farming is catching up with India." *The New York Times*, February 11.
http://www.nytimes.com/2011/02/12/business/global/12food.html?_r=1&pagewanted=all.
McNeil Jr., Donald G. 2011. "Despite growth, India struggles With child malnutrition." *The New York Times*, March 7.
http://www.nytimes.com/2011/03/08/health/08global.html?_r=1.
Acara Challenge: Student Guide, Chapter 2: Communication
DeWalt, K. and B. DeWalt (2001) Chapter 9: Analyzing Field Notes, *Participant Observation: A Guide for Fieldworkers,* Altamira Press, New York, pp163-194.
(Optional)
Videos:
Jason Fairbourne, "Designing Business Models for the Poor"
(http://www.youtube.com/watch?v=Qqh8r3Z1e8I&feature=player_embedded#!)

Dev Patnaik, Ethnography in the business design process based on his book <u>Wired to Care</u>. (http://vimeo.com/2262778)

Josette Sheeran, "Ending Hunger Now" (http://www.ted.com/talks/josette_sheeran_ending_hunger_now.html?awesm=on.ted.com_Sheeran&utm_campaign=&utm_medium=on.ted.com-static&utm_source=twitter.com&utm_content=awesm-bookmarklet) (Optional)

Action:
- Get to know SIMSR Teammates
- Send field questions to SIMSR teammates by **Wednesday, Sept. 14** at midnight. SIMSR students have their first field visit scheduled for Sept. 16.

Week 4

Monday, September 19 (4301/Studio East MVR)

Topic: Understanding the Design Process

Guest Lecturer: Sheila Danko, Professor, Human Ecology

Topic: Understanding the BoP Context

Guest Lecturer: Erik Simanis, Managing Director, Market Creation Strategies, Center for Sustainable Global Enterprise

Readings:

Prahalad, C.K. and Stuart L Hart (2002). "The Fortune at the Bottom of the Pyramid," strategy+business, issue 26.

Simanis, E. (2010). Chapter 4: Needs, Needs Everywhere, but Not a BoP Market to Tap, <u>Next Generation Business Strategies for the Base of the Pyramid</u>, FT Press.

Simanis, E. (working paper). "Dispelling the Margin Myth: Why Low-Income Markets Demand Sky-High Margins."

Simanis, E. (2009). "At the Base of the Pyramid," The Wall Street Journal.

Schnetzler, N. (2005). Preface and Chapter 1: A Machine Produces Ideas, *The Idea Machine*, Wiley-VCH, Weinheim, pp 11-37.

Simanis, E. and Stuart Hart (2009). "Innovation from the Inside Out," MIT Sloan Management Review, vol 50, no. 4, pp 76-87. (optional)

Homework Assignment:
- Learning to See: ABC <u>Individual</u> Photos **(DUE: Today in class)**

Action:
- Communicate with SIMSR teammates
- Receive field visit information from SIMSR (videos, photos, field notes, etc.)

Monday, September 26 (4301/Studio East MVR)

Topics: Information Analysis – What is your Problem Statement?; Creating a Persona – Asking the Right Questions; Introduction to Empathy Maps; Assessing the ABC Projects

Readings:

Kelly, T. (2001). Chapter 1: Innovation at the Top, 1-14. The Art of Innovation, Doubleday:NY

Calabria, Tina (2004). "An Introduction to Personas and How to Create Them," Step Two Designs. http://www.steptwo.com.au/papers/kmc_personas/index.html

Acara Challenge: Student Guide, Chapter 4: Design and Creative Thinking

Homework Assignment:

- Learning to See: ABC Team Project **(DUE: Today in class)**
- Bring field visit information to class **today**

Action:

- Communicate with SIMSR teammates and Acara assigned mentor
- Share problem statement ideas and persona concepts with SIMSR teammates – seek their input.
- SIMSR students are scheduled for their second field visit on Oct. 1. Request field notes, insights, photos, videos, etc.
- Jeremy Knopow (Guest speaker on Oct. 3) is available the afternoon of Oct. 3 and morning of Oct. 4 for team consultation. Schedule a time to meet him.

Monday, October 3 (4301/Studio East MVR)

Topics: Empathy Maps; User-Centered Design

Guest Lecturer: Jeremy Knopow, Base of Pyramid – R&D Lead, SC Johnson

Readings:

Travis, D. (2009) The Fable of the User-Centered Designer, Userfocus. (http://www.userfocus.co.uk/pdf/fable.pdf)

Osterwalder, A. and Yves Pigneur (2010) Technique No. 1 Customer Insights, p126-133. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Wiley.

Homework Assignment:

- Bring in Empathy Map for discussion in class. **(DUE: Today in class)**

Action:

- Communicate with SIMSR teammates and Acara Mentors
- Finalize problem statement in collaboration with SIMSR teammates. (Note that SIMSR students have exams from Oct. 2-Oct. 6.)
- SIMSR students are scheduled for their final field visit on Oct. 8. Request field notes, insights, pictures and videos, etc.

Week 7

Monday, October 10 (Fall Break)

Week 8

Monday, October 17 (4301/Studio East MVR)
Topics: Brainstorming/Ideation
Readings:
Gladwell, Malcom (2011). "Creation Myth." The New Yorker, pp 44-53.
Jones, M and F. Samalionis (2008). "Greater Good," BusinessWeek.
Homework Assignment:
- Problem Statement Video to be posted on YouTube and link sent to me **(DUE: midnight Sun. Oct. 16)**

Action:
- Communicate with SIMSR teammates and Acara assigned mentor
- Share initial brainstorming ideas with SIMSR teammates – do a follow-up brainstorming exercise with them
- Share Problem Statement Video with SIMSR teammates and Acara mentor

Week 9

Monday, October 24 (4301/Studio East MVR)
Topics: Video Critiquing; Brainstorming/Ideation
Action:
- Communicate with SIMSR teammates and Acara assigned mentor

REQUIRED WORKSHOP
Friday, October 28 (1:30am-3:30pm, MVR Studio 4301)
Lecture:11:15-12:05; 1413 MVR (optional)
Guest Lecturer: Elizabeth Gerber, Professor, Segal Design Institute, Northwestern University; Founder, Design for America
Readings:
Gerber, Elizabeth (2007). "Improvisation Principles and Techniques for Design," CHI
    2007 Proceedings Learning & Education, pp 1069-1072
YouTube Video: http://www.youtube.com/watch?v=m_kVV9hgIRw

Week 10

Monday, October 31 (NO CLASS)

Week 11

Monday, November 7 (4301/Studio East MVR)
Topic: The Art of Storytelling – Creating a Storyboard; Creating a 3-D Model
Readings:
Customer Journey Map: http://www.servicedesigntools.org/tools/8
Storyboard: http://www.servicedesigntools.org/tools/13
Action:
- Communicate with SIMSR teammates and Acara assigned mentor
- Share storyboard with SIMSR teammates and Acara mentors
- Begin to develop business concept report with SIMSR

Week 12

Monday, November 14 (Studio: MVR 4101)
Topic: Critiquing Storyboards; Creating a 3-D Model
Action:
- Communicate with SIMSR teammates and Acara assigned mentor
- Continue to develop business concept report with SIMSR
Homework Assignment:
- Storyboard to be emailed to me **(DUE: midnight Sunday, November 13)**

Week 13

Monday, November 21 (4301/Studio East MVR)
Topic: Critiquing Models; How to Write an Effective Business Plan; Effective Presentations
Readings:
Young, T. (2010). "365 Days, $10 Million, 3 Rounds, 2 Companies, All With 5 Magic Slides." Techcrunch.com (http://techcrunch.com/2010/11/02/365-days-10-million-3-rounds-2-companies-all-with-5-magic-slides/)
Noble-Grange, A. (2011) "Lose the Crutch!" Cornell Enterprise Online. (http://www2.johnson.cornell.edu/alumni/enterprise/spring2011/index.cfm?action=department&department_id=6)
Venture Hacks (2009) Chapter 5: Decks, Pitching Hacks: How to pitch startups to investors, lulu.com, p.52-61
Winning Acara Business Plan, 2010: JAL Water for Life (http://acarainstitute.org/?110660)
Winning Acara Business Plan, 2010: BioServ (http://acarainstitute.org/?110660)
Winning Acara Business Plan, 2011: Swach (http://acarainstitute.org/?110070)
Winning Acara Business Plan, 2011: TextRA (http://acarainstitute.org/?110070)
Homework Assignment:
- 3-D Models **(DUE: Today in class)**
Action:
- Communicate with SIMSR teammates and Acara assigned mentor
- Continue to develop business concept report with SIMSR

Week 14

Monday, November 28 (Sage Hall B10)
Topic: Mock Presentations
Guests: Selected entrepreneurs and experts to critique presentations
Homework Assignment:
- Send PowerPoint Presentation to me **(DUE: noon Monday, Nov. 28)**
Action:
- Communicate with SIMSR teammates and Acara assigned mentor
- Finalize business plan report with SIMSR

Week 15

Monday, December 5 (No Class – Study Period)

Week 16

Monday, December 12 (Sage Hall B10)
Topic: Final Presentations to Acara via Video Conference
Homework Assignment:
- Final Presentation **(DUE: Sunday, Dec 11, time TBD)**
- Final Business Plan **(DUE: electronically at 5pm, Dec. 12)**

February (Minnesota)
Team chosen for the final round will be flown to Minnesota to present their business idea at UMN St. Paul's.