

Innovation and Change  
Fall 2013

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**Course Description:** This course is an interdisciplinary introduction to the theory and practice of organizational innovation and change. Its theoretical underpinnings are derived from my own experiences and together, we as a group, will explore, challenge, and revise this thinking.

Taking this course will not make you more innovative.

**Course goals:**

- Starting with an appreciation of the inherent subjectivity of our individual understanding of the World, we will construct a set of fundamental principles that provide a robust framework for exploring change and innovation within any organizational setting
- Participants will gain a formal appreciation of the importance of diversity within systems, and that diversity drives both innovation and outcome quality
- We will explore the difficulty, at the system level, of fostering inclusion (as an engine of diversity) and we will investigate the use of game mechanics to overcome this deficit
- We will introduce, and explore, the notion of innovation as organizational storytelling
- Evaluate a framework that allows us to appreciate that not all problems are created equally, and as such should not be treated in the same way, and we shall investigate the importance of design of system to accommodate creation of innovation

**Broad Course objectives:**

- An understanding of the fundamental limits of all models (both subjective and objective), through assumption testing and hypothesis construction/deconstruction.
- Participants should be able to list both the elements of game mechanics, and several of the key characteristics of 'wicked problems' (of which there are 10 in total, following the original definition of Rittel/Webber)
- Participants should be able to identify elements of 'wicked problems' within issues they

**Specific learning objectives (per class):**

- Understand that all models are fundamentally flawed representations of reality.
- People's backgrounds inform their understanding of the world and this, in turn, informs their actions. Gain an appreciation that these models have tremendous impact and importance in how we work together.
- Understand that the intersection of our individual models of the World represents unique value, and that this unique value is one part of the innovation process.
- Reinforce the role of diversity (marginality) in problem solving and innovation. Introduce the importance of system design to foster inclusion of diverse ('marginal') input.
- Review the principles of game mechanics, discuss in the context of system construction, and through the lens of inclusion.

- An introduction to the basic principles of Systems Thinking
- An understanding of the limits of systems, a completion of the systems topic
- Describe the underlying fundamentals of social media. Explore the use of social media as an engine of communication, collaboration, and ultimately innovation.
- Demystify the innovation process. Introduce the notion of innovation as organizational storytelling.
- Introduce the notions, and characteristics, of tame & wicked problems.
- Connect wicked problems and systems thinking approach, to organizational design and investigate downstream outcomes from an innovation perspective.

### **Modes of Inquiry:**

This course would satisfy both the textual analysis and the historical, social, and cultural modes of inquiry of the WCSU Honors Program

### **Required Readings:**

[BENTZIEN] Bentzien *et al*, "Crowd computing: using competitive dynamics to develop and refine highly predictive models." *Drug Discovery Today* (in Press; <http://dx.doi.org/10.1016/j.drudis.2013.01.002>).

[BROOKS] World War Z, Max Brooks (Broadway, ISBN-10: 0307346617, ISBN-13: 978-0307346612)

[KOTTER] Kotter, J. P. "Accelerate!", *Harvard Business Review* 90(11) 2012 pp. 45–58.

Thinking in Systems, Donella Meadows (Chelsea Green Publishing Company, ISBN-10: 1603580557, ISBN-13: 978-1603580557).

[LARS] Lars, B. J., and Lakhani, K. R., "[Marginality and Problem-Solving Effectiveness in Broadcast Search](#)." *Organization Science* 21 2010 pp 1016–1033.

[MANDIBERG] The Social Media Reader, Michael Mandiberg (NYU Press, ISBN-10: 081476406, ISBN-13: 978-0814764060).

[PAGE] Difference, Scott E. Page (Princeton University Press, ISBN-10: 0691138540, ISBN-13: 978-0691138541).

[RITTEL] Rittel, H. W. J and Webber, M. M. "Dilemmas in a General Planning Theory", *Policy Sciences*, 4(2) 1973 pp. 155-169.

[SILVER] The Signal and the Noise, Nate Silver (Penguin Press HC, ISBN-10: 159420411X, ISBN-13: 978-1594204111).

### **Grading and Expectations:**

Final grades for this course will be based on the following elements:

1. Discussion participation, including acting as discussion leader (20 percent)
2. Participation in threaded discussion boards on each week's topic (20 percent)
3. Two four-page preliminary papers (15 percent each)
4. One six-page final paper (30 percent)

More information on these elements can be found at the end of this syllabus.

## Course Schedule

### Part One: Your Model is Wrong

8/27 Introductions, during which I come clean regarding my inexperience as a teacher and frantically try to remember all of your names  
*Reading: Syllabus*

9/3 What's a model? The role of models, quantitative and otherwise  
*Reading: [SILVER, Introduction]*

**Learning Objective:** Understand that all models are fundamentally flawed representations of reality.

**Learning Activities:** For two models (one qualitative, one quantitative) we will tease apart the underlying model assumptions and investigate the effect on the outcome.

### Part Two: Our Models are Different

9/10 Diversity in people – where it comes from (the cultural and familial soup)  
*Reading: [PAGE]*

**Question for Discussion on Blackboard Thread: “Diversity is ...”**

**Learning Objective:** People's backgrounds inform their understanding of the world and this, in turn, informs their actions. Gain an appreciation that these models have tremendous impact and importance in how we work together.

**Learning Activities:** In small-groups using a discussion tool, 'cultural introductions', explore the themes that make us unique, examine the potential barriers to inclusion.

9/17 The Gap - diversity of thought  
Our models are different  
*Reading: [PAGE]*

**Question for Discussion on Blackboard Thread: “Innovation is ...”**

**Learning Objective:** Understanding that the intersection of our individual models of the World represents unique value, and that this unique value is one part of the innovation process.

**Learning Activities:** This understanding will then be applied during a small-group activity: through play we will 'innovate'. Best innovation, as decided by the class, will win an awful prize of minimal monetary value.

### Part Three: Difference affords Opportunity

9/24 The Gap – diversity & innovation  
*Reading: [LARS]*

**Learning Objective:** Reinforce the role of diversity (marginality) in problem solving and innovation. Introduce the importance of system design to foster inclusion of diverse ('marginal') input.

**Learning Activities:** Using [LARS] as a framework for discussion, investigate the systemic levers used to foster inclusion, and promote innovation.

#### **Part Four: It is what it is, but becomes what you make it**

10/1 Games

*Reading:* Article, [BENTZIEN]

**Question for Discussion on Blackboard Thread: "My favourite game is ... and here's why:"**

**Learning Objective:** Review the principles of game mechanics, discuss in the context of system construction, and through the lens of inclusion.

**Learning Activities:** In small-groups create a game to foster 'More Health; subsequent small-group class presentations of game.

10/8 Systems thinking

*Reading:* [MEADOWS]

**Learning Objective:** An introduction to the basic principles of Systems Thinking

**Learning Activities:** For a number of systems, we'll discuss system type and defining features

**First Four-Page Preliminary Paper Due**

#### **Part Five: There is no such thing as a Zombie Proof House**

10/15 Systems failure

*Reading:* [BROOKS]

**Learning Objective:** An understanding of the limits of systems, a completion of the systems topic

**Learning Activities:** For the systems previously discussed, we'll examine, through discussion, system limitations, fault tolerance, resilience, and failure

#### **Part Six: There are no silly questions, just things you would like to know but don't**

10/22 The Facebook Effect

*Reading:* [MANDIBERG, p32]

**Question for Discussion on Blackboard Thread: "I think social media is useless because ..."**

**Learning Objective:** Describe the underlying fundamentals of social media. Explore the use of social media as an engine of communication, collaboration, and ultimately innovation.

## **Part Seven: The importance of storytelling**

10/29 Innovation

*Reading: Gunfire at Sea*

**Question for Discussion on Blackboard Thread: “Having read the case study, “Gunfire at Sea”, I think the barriers to innovation are ...”**

**Learning Objective:** Demystify the innovation process. Introduce the notion of innovation as organizational storytelling.

**Learning Activities:** Debrief the Gunfire at Sea casestudy

## **Part Eight: Some problems can't be solved. And that's okay**

11/5 Wicked Problems

*Reading: [RITTEL]*

**Learning Objective:** Introduce the notions, and characteristics, of tame & wicked problems.

**Learning Activities:** Facilitated classroom debrief of [RITTEL]. During discussion connect to systems thinking approach.

11/12 Okay, now what do I do with that information?

*Reading: [KOTTER]*

**Question for Discussion on Blackboard Thread: “I think this problem [insert problem here] is wicked, because ...”**

**Second Four-Page Preliminary Paper Due**

**Learning Objective:** As a continuation of the previous discussion, connect wicked problems and systems thinking approach, to organizational design and investigate downstream outcomes from an innovation perspective.

**Learning Activities:** Facilitated classroom debrief of [KOTTER].

12/3 **Final Six Page Paper Due**

## Course Requirements in Detail

### Four-Page Papers

You will be required to write two four-page papers in this class. They are due on **October 1** and **November 12**.

In both papers identify an **argument** or **position** taken in any one of the readings in class and systemically **disagree** with that argument or position, using your own analysis and the evidence from other sources to provide evidence as to why the argument or position taken from the reading is 'wrong'. The papers should be readable and present a cogent positional thesis. They should provide critical analysis, original and innovative arguments and a demonstrated diversity of thought and source.

### Final Six Page Paper

Your final six page paper will be due on **December 3<sup>rd</sup>**. In this final paper, drawing on elements you will have experienced from throughout the course material, elaborate upon your own set of fundamental principles. It will be important that the woven narrative of discovery be clear, and to be concisely supported through critical presentation of your ideas, thought process, and any and all supporting media.

### Thredd Chats on Blackboard Vista

Nearly every week students will log onto Blackboard Vista and write a brief paragraph consisting of approximately three to four sentences. Students will be required to read the responses of fellow students. For each class session with a blackboard assignment, students will also be required to print out their response and bring it to class.

### Discussion Participation

A substantial portion of your grade will be based on your participation. I will evaluate your participation based on the frequency and the quality of your discussion in class and your level of knowledge and interest in the topic as indicated by your written work. A corollary to this point is that regular unexcused absences will negatively affect your participation grade, since if you are absent, you cannot participate.

### Grading of participation:

Following each discussion I will note a participation score (0-2). Please feel free to email me at any time to check up on how you're doing on your participation grade. I may use half-point allocations.

- 3 Good participation. Your involvement is frequent and active. Your engagement with the text and course material is extensive and well thought out. You interact with your fellow students and your hapless teacher in a constructive way, extending and building discussions. Your comments are unique, thoughtful, and creative. You may demonstrate reflective reasoning.
- 2 Fair participation. Your contributions are sporadic, and usually consist of restating facts, or arguments.

- 1 You are keeping the seat warm. You do not actively contribute and, thankfully, are not disruptive.
- 0 The seat is cold. You are gone. We are sad. Notified/excused absences will result in that day not counting

## Grading Standards, Tips, and Expectations

### a. Essays and Written Work

This course relies primarily upon written assignments, and you will be graded largely on your ability to use critical thinking, demonstrate abstract ideas, and apply evidence in your written and oral work. This sheet, based on ideas and policies generated by the Harvard Core Program and the Lewis and Clark College History Department, provides some advice as to how to go about this process.

### b. Important Questions to consider while thinking about a paper:

1. Who is the author? When did he/she live? What is his/her position in society? Thinking about these questions will allow you to connect the author's thesis with general historical/cultural/religious trends
2. Who, or what, is the author (implicitly) arguing against? What is the purpose of the contribution?
3. What relevant materials can you bring to bear on the issues that the author is raising?
4. What is your thesis/argument? What is the main point you are trying to convey?
5. What contradictions or logical fallacies does the author fall into?

### c. Guide to Effective Revision:

Before submitting your paper, please consider the following:

1. **Thesis.** What is the point you are trying to make with this paper? Are you clear and focused? Are you persuasive in your arguments? Are you original and creative?
2. **Evidence.** Do you use examples and quotations appropriately? Do you present enough evidence to support your reasoning?
3. **Organization.** Are you logically consistent throughout? Does the essay have a clearly defined introduction, body, and conclusion? Does each paragraph have a topic sentence that summarizes its main idea? Does each paragraph flow logically from the previous one?
4. **Conclusion.** Is the conclusion consistent with the evidence you have presented? Does it build on and move beyond the thesis as stated?
5. **Mechanics.** Is the paper free of spelling and grammatical errors?
6. **Style.** How smoothly does the paper flow? Is the prose lively and vivid?
7. **Citation.** Have you provided robust citations for your evidence, including weblinks, quotations, sources, articles, provenance etc.

d. **Grading Standards**

**The A paper:**

All points in section c above are addressed. This work is lively, cogent, original, and thought-provoking. It is a joy to read.

**The B paper:**

This is a solid paper, with all of the points in section c above being addressed. It will differ from the A paper in a few of the following dimensions: cogency, originality, or ability to provoke thought in the reader. While being mechanically sound (spelling and grammar), some of the sentences might be poorly constructed or confusing.

**The C paper:**

While the C paper has a thesis, it is broad and banal or obvious. It does not convey interest or engagement. The paper may also have mechanical faults and errors (spelling and grammar).

**The Toilet paper:**

This paper is filled with mechanical faults. The reasoning and exposition are disjoint and awkward. There is no central thesis. This paper fails to address the question at hand.