

Course Summary
CS 4900/4901 -- Technology and Transformation
CS4902 -- Practices of Transformation

Starting Fall Quarter 2004

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This three-part sequence has two main objectives:

- Teaching you how transformation works and how to be a competent practitioner in a culture of innovation; and
- Helping you design and prepare to execute a thesis project that will be transformative.

Your thesis project is a microcosm of the larger world in which you will later practice transformation as a professional.

Innovation is widely considered essential for businesses and organizations to generate new offers, create new wealth, and prosper. Innovation means to effect a transformation in the practices of a group of community, often assisted by technology. The real work of innovation is in the transformation of practice, not in the creation of the new idea or technology.

In this sense, innovation is misunderstood as much as it is valued and treasured. It seems to many that great inventions and innovations are fortuitous accidents and are inherently unpredictable. If our attention is drawn to the creative processes of invention, we will not engage with the work of transformation, and we will never know which ideas will actually change the way people do things.

Our premise is that with the right vocabulary and distinctions, you can see clearly how the process of innovation works, and you can engage with it systematically. We will teach you not only the process of innovation, but the language and vocabulary needed to engage with it effectively.

The first two segments focus on the basics of transformation and case studies of the transformative works of NPS/CS faculty. Each week we will devote one hour to an aspect of transformation, and one hour to an interview of a CS faculty member and an occasional guest speaker. These interviews will help you get to know the faculty: one of them will be your thesis advisor.

The third segment focuses on the development of a transformative thesis plan and formal thesis proposal. We will offer additional, optional sessions in which we use practices derived from Aikido to train the more subtle movements needed for successful execution of the components of the innovation process, and to deepen your understanding.

Course Materials Web Page

cne.gmu.edu/pjd/TT

Readings

The course materials web page contains a reading list. The books by Berner-Lee, Drucker, Tuomi, and Arbinger are required. We will provide copies of extracts from other books and articles and will assign them ahead of time.

Workload

Each segment is a 2-contact hour course with P/F grading and no final exam. We expect the weekly workload outside of class – reading, research, and some writing – to be between 2 and 4 hours. Expect weekly pre-work requests for advance reading and research for class sessions.

Journaling

We ask that you maintain a course journal throughout the entire sequence. For details, see the journaling handout on the course materials web page.

Embodiment Practices

The personal foundation practices of innovation must be embodied to be effective. Embodied means that you have trained them into yourself and can do them smoothly and without thought at moments of need. The course contains many practices that will help you to embody what you need to know to be an agent for transformation.

Topics

These topics will be covered in the three-quarter sequence (numbers are the approximate number of weeks, which may not be contiguous):

Basic Framework (3). Conventional understandings of innovation and transformation as novel ideas. Contrast with actual experience, showing transformation of social practice supported by technology.

Principles of Innovation (6). Is innovation a gift, talent, luck, fortune, or practice? Innovations as transformed social practice. Locating opportunities for innovation. Drucker's 5-step process and 7 sources of opportunity. The 8 personal foundational practices of innovation. Numerous examples.

Ladders of competence (3). What does it mean to be competent in a domain? At innovation? To exercise leadership through innovation?

Language and Vocabulary for Transformation (6). Linguistic framework for transformation. Individual worlds and observers. Innovation will not take

root unless it brings value to the customer. What is value? Who is customer? Value v. satisfaction.

Listening and Receptivity (3). Are common notions like repeating back words, asking questions, expressing sympathy or empathy, standing in the other's shoes effective? Listening for concerns. Models of receptivity to proposed technological changes.

Assessments and Feedback (3). Making well grounded assessments and giving effective feedback.

Declarations and offers (3). Declaration creates a new world and context for action. Offer promises a change in return for benefits. Structure of effective declarations and offers.

Coordination (6). Fundamentals of coordination. Action loops. Networks of commitments. Impediments from conditioned tendencies. Trust.