

National Taiwan University
College of Management

Spring Semester 2016

Leading Systems Change: Systems Thinking for a Sustainable World

引領革新:系統思考與永續發展

Dates: March 5, 6, 26, 27, April 16 and 17

Time: 9 am to 5:30 pm

Professor: Dr. Joe Hsueh 薛喬仁
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Credits: 3 Units

Introduction

*Are you passionate about creating positive impact for Taiwan and the world through your future career?
Do you aspire to be a highly effective change leader who thinks and acts at the whole systems level?
Would you like to join a group of "comrades" who cares about creating a sustainable and just world?*

This special intensive course is designed for aspiring change leaders in business, government and civil society who want to create systemic change and lasting impact in the world. It is adopted from MIT Sloan School of Management's executive education designed for high impact leaders, and is based on the professor's real world consulting experience with clients such as the World Bank, Walton Family Foundation, Nike and Sustainable Apparel Coalition.

Why Systems Thinking

*"We cannot solve our problems with the same thinking we used when we created them."
– Albert Einstein*

Many of the critical challenges facing the world today are deeply complex, such as climate change, poverty, social injustice, food safety, regenerative economy, and sustainable development. They stem from multiple causes, involve multiple stakeholders, are embedded in a web of multifaceted cause-and-effect relationships, and contain structural traps in which isolated actions result in suboptimal outcomes for the whole. Many such challenges are often addressed by scattered organizations using technical approaches alone, frequently resulting in policies or actions that attend to only one part of the system.

Increasingly, however, the challenges society faces are recognized to be more systemic in nature, requiring holistic thinking and the collaboration of multiple parties to arrive at systemic solutions. Systems thinking is a critical leadership capability that enables one to look at a problem holistically, identify root causes and design high-leverage solutions. It is called by MIT Sloan School of Management professor Peter Senge (彼得·聖吉) as “the core discipline of a learning organization” in his seminal book: *“The Fifth Discipline: the Art and Practice of the Learning Organization.”* (第五項修煉)

Course Objectives

This course will help you understand what systems thinking is and how it can empower you to become an effective change leader for creating a sustainable world. We will learn about the principles and tools of systems thinking and how to apply them to problem solving, decision making, strategic planning and partnership building for creating systemic change.

Specifically, we will learn a set of tools that enable you to (1) graphically depict your understanding of a complex social system's behavior and its underlying structure, (2) communicate with others about your understanding explicitly to form a shared understanding, and (3) design high-leverage interventions to address root causes of a complex challenge.

These tools include causal loop diagrams, behavior-over-time graphs, stock-and-flow diagrams, system archetypes and systems mapping—all of which let you depict your understanding of a system—to computer simulation models and “management flight simulators,” which help you to test the potential impact of your interventions.

We will also introduce other change framework and tools such as shared vision, mental model, dialogue, facilitation, team learning and Theory U to make you an effective change leader.

Another (implicit) objective is to create a learning community so you can learn from your peers from different disciplines, develop friendships and form potential partnerships for leading systems change in Taiwan and the world.

Whether you choose to become a social entrepreneur, a corporate sustainability officer, a management consultant, a policy maker, a politician, a social activist, a NGO leader, a foundation manager or an academic, these tools and consulting methods shall make you an attractive job candidate.

Teaching Method

This course will not be conducted in a traditional lecture format. Instead, it will be co-created in an interactive workshop style that includes participatory lectures, simulation games, small group exercises, large group dialogue, real world team projects and regular opportunities for personal reflection. It will be highly experiential and require active participation and a willingness to break out old habits with an open mind, heart and will for personal growth and development. The more you participate, the more you will grow. It will be a fun class with lots of laughter and peer support.

The course will be conducted in English. The professor speaks both English and Chinese. You need to feel comfortable listen and understand lectures in English. Fluency in English speaking is not required but you need to feel comfortable participating in group activities in English.

Team Project

There will be a team project that requires you to apply systems thinking tools and consulting methods to analyze a critical challenge facing Taiwan. Specifically, each team will 1) select a critical challenge from a list offered by the professor; 2) create a systems map analyzing the challenge; 3) provide a recommendation on how to address the challenge using systems approach.

Your imaginary client is a Minister of a particular ministry in Taiwan. For example, your team could work on developing a systems map and analysis for a sustainable agriculture strategy for the Minister of Agriculture or a clean energy strategy for the Minister of Environment. Your team will develop a 10-minute PowerPoint presentation and a short report. We will aim to publish the report online.

Beside the team project, each of you will write a one-page single-spaced paper reflecting on what you have learned from this course.

Grading

Class participation: 15%

Team project: 75%

Individual reflection paper: 10%

Course Application

This course is open to all graduate students and selected few senior students across NTU. The class size is limited to 30 people only to ensure group effectiveness. You will need to apply by submitting:

1) CV (in English or Chinese, please notify your department and student number)

2) Bio (in English, less than one page single-spaced) describing:

- your background
- your vision for yourself and the world
- your reason for taking this course

We will select students based on the fit and availability.

Readings

David Stroh (2015). *Systems Thinking for Social Change: A Practical Guide to Solving Complex Problems, Avoiding Unintended Consequences, and Achieving Lasting Results*: Chelsea Green Publishing (REQUIRED).

Peter Senge (2006). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Currency Doubleday.

John Sterman (2000). *Business dynamics: Systems thinking and modeling for a complex world*. Boston: Irwin/McGraw-Hill.

Dr. Joe Hsueh

[Dr. Joe Hsueh](#) is considered as one of the world's leading systems thinkers and systems mappers with a Ph.D. in system dynamics from MIT. He brings his passion and experience in advising, consulting and facilitating large-scale systems change with clients such as the World Bank, Walton Family Foundation, Nike, and Sustainable Apparel Coalition. He is a co-founder of the [Academy for Systemic Change](#) (with Peter Senge and others), a partner at [SecondMuse](#) (a global systems innovation consultancy) and an adjunct faculty at Harvard's Executive Education for Sustainability Leadership.

Joe is passionate about the holistic process of identifying, designing, mapping, convening, prototyping, learning and scaling large-scale systems change for social, economic and ecological well-being. He helps multi-stakeholder groups see the larger system and identify high-leverage points for collective action using qualitative systems mapping and quantitative system dynamics modeling. Projects he has worked with include Zero Discharge Hazardous Chemicals Coalition, Sustainable Apparel Coalition, Sustainable Fishery Initiative, Cancer-Free Economy Collaborative Network, Sustainable Consumption and Production Network, World Bank Disaster Risk Management Strategy, Costa Rica Regenerative Rainforest Economy, K-12 Education Reform, Colorado Water Resource Management, Labor Standard and Worker Well-being Strategy, Sustainable Energy, El Mangle Action Learning Campus, Clean-tech Start-up Strategy, Micro-finance and Youth Leadership Strategy among others.

Joe developed the CleanStart Management Flight Simulator with MIT Professor John Sterman for teaching entrepreneurship, corporate strategy, strategic human resource management and employee ownership. The free online simulator is used at MIT Sloan and around the world.

Prior to his PhD at MIT, Joe studied a MPA in International Development at Harvard Kennedy School of Government, and spent a year with a Buddhist monastery experiencing Buddhism-in-action through volunteering around the world.