Systems Thinking and Change Workshop

Professor Joe Hsueh
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Schedule: 9 am to 6 pm, November 4th and 5th, 2016

“We cannot solve our problems with the same thinking we used when we created them.”
~ Albert Einstein

Due to human’s bounded rationality, people tend to look at a problem from a local and partial perspective and propose solutions that create unintended consequences in the long run. Hence, today’s problems come from yesterday’s solutions. The harder we push, the harder the system pushes back. To help escape such a structural trap, 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 professor Peter Senge “the core discipline of a learning organization” in his seminal book: “The Fifth Discipline: the Art and Practice of the Learning Organization.”

The field of systems thinking and system dynamics has generated a broad array of tools that let you (1) graphically depict your understanding of a particular system’s behavior and its underlying structure, (2) communicate with others about your understandings explicitly, and (3) design high-leverage interventions to address root causes of a problem. These tools include causal loops, behavior over time graphs, stock and flow diagrams, and systems archetypes—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.

In this workshop, we will learn the core concepts and tools of systems thinking and how they can be applied to our daily lives. Through a group simulation, we will learn the Iceberg Model – going from event, pattern of behavior, structure, mental model to shared vision – to help us identify and enact high-leverage interventions for creating systemic change. We will learn how a system’s structure determines its behavior by exploring the fundamental modes of dynamic behavior: exponential growth, goal seeking, oscillation, limits to growth, and overshoot and collapse. These are basic building blocks for understanding dynamic complex systems. We will learn systems mapping steps using fisheries and water management examples, and how systems mapping can be applied to your group projects. We will learn systemic change process and how to engage multiple stakeholders by “bring the system into the room” using systems mapping and facilitation.

This intensive two-day course is adopted from MIT Sloan School’s executive education course designed for high impact leaders and managers. It will be conducted in an interactive workshop style that includes simulation games, participatory lectures, small group exercises, large group dialogue and regular opportunities for personal reflection. It will be highly experiential and require active participation. It will be a fun class with lots of laughter and peer support!
Readings:


Professor Joe Hsueh

Joe is a professor, consultant and advisor in systems thinking and systems change. He cofounded the Academy for Systemic Change with MIT Professor Peter Senge and others. He teaches systems thinking at Harvard University and National Taiwan University, consults for the World Bank, and serves as an advisor to the premier of Taiwan.

Joe is passionate about the process of identifying, designing, mapping, convening, facilitating, prototyping, scaling, sustaining and learning from large-scale systemic change for social, economic and ecological well-being. He helps multi-stakeholder groups see the larger system and identify high-leverage points using qualitative systems mapping and quantitative system dynamics modeling. Projects he has worked with include Zero Discharge Hazardous Chemicals Coalition, Sustainable Apparel Coalition, 50-in-10 Sustainable Fishery Initiative, K-12 Common Core education reform, Colorado water resource management, labor standard and worker well-being, World Bank Collective Action Platform, Garfield foundation cancer-free economy collaborative network, Sustainable consumption and production systems mapping El Mangle action learning campus strategy, clean-tech start-up business strategy, micro-finance and youth development strategies and strategic human resource management for a biotech company.

Joe developed the CleanStart Management Flight Simulator and its teaching materials for teaching the dynamic effects of human resource allocation, compensation structure, and business and fund-raising strategies of a clean tech company. The simulator is now being used in MIT's Sustainable Business Lab (S-Lab) class.

Joe holds a Ph.D. in System Dynamics from MIT Sloan School of Management, a MPA in International Development from Harvard University Kennedy School of Government, and had spent a year with a Buddhist monastery experiencing Buddhism-in-action through volunteering around the world.