

LEAN APPROACHES TO SOCIAL INNOVATION

Overview

Affordable housing that's 40% less expensive to build. Three times as many soup kitchen clients served each hour. Hospital ER wait time cut by 90%. This is the type of impact social innovators aspire to achieve by applying the method called "Lean."

Since Toyota developed the Lean continuous improvement methodology, manufacturers globally adopted it, then finance and healthcare organizations, and now nonprofits, government agencies, and for-profit and hybrid social enterprises. What is Lean? How do you set up a Lean program? Which organizations have seen great results, and why? How does Lean relate to financial and social impact strategy and operations?

Learning objectives

Students will understand the basic concepts and methods of Lean; gain familiarity with case studies from nonprofit, government, and social enterprise; and become ready to take an active role in a Lean project

Requirements

Class participation. (25% of grade) Students will be expected to show evidence of their reading through questions, discussions, and presentations. Each class will include 30-second updates or elevator pitches on key concepts from the reading or assignment. Reading assignments:

- Tom Agan. "The Secret to Lean Innovation Is Making Learning a Priority." *Harvard Business Review*. January 2014. (3 pages)
- Aristotle. *Physics*. Book II. 350 BC. (11 pages)
- Steve Blank. "Why the Lean Start-up Changes Everything." *Harvard Business Review*. May 2013. (6 pages)
- "Chicago Creates 150 Additional Neighborhood Police Officers by Streamlining Administrative Operations." *US Mayor Newspaper*. August, 2009. Atul Gawande. "The Checklist." *The New Yorker*. 2007. (2 pages)
- David Collis. "Lean Strategy." *Harvard Business Review*. March 2016. (11 pages)
- Mona El-Naggar. "In Lieu of Money, Toyota Donates Efficiency to New York Charity." *The New York Times*. 26 July 2013. (4 pages)

- Mark Friedman. *Trying Hard Is Not Good Enough*. Trafford. 2005. Chapters 1-2. (14 pages)
- Michel Gelobter. *Lean Startups for Social Change*. Berrett-Koehler. 2015. Chapters 3, 10-12. (56 pages)
- Mike George et al. *What is Lean Six Sigma?* McGraw-Hiill. 2004.(92 pages)
- Nathan Heller. "Bay Watched: How San Francisco's New Entrepreneurial Culture Is Changing the Country." *The New Yorker*. 14 October 2013. (21 pages)
- IDEO. "Innovation in Government." (18 pages)
- John Kania et al. "Collective Impact." *Stanford Social Innovation Review*. 2011. (6 pages)
- Lean Program Office, The Governor's Office of State Planning and Budgeting. *State of Colorado Lean Program Office Progress Report: Pursuing Effective, Efficient and Elegant Government Services*. 2013. (98 pages)
- Mike McCreless et al. "Metrics 3.0: A New Vision for Shared Metrics." *Stanford Social Innovation Review*. June 2014. (5 pages)
- Eric Ries. *The Lean Startup*. Crown. 2011. Chapters 9-12. (86 pages)
- Zack Rosenburg. "What a car company had to teach a non-profit about rebuilding faster after natural disasters." *Quartz*. 20 September 2016. (2 pages)
- Nikhil Sahni et al. "Unleashing Breakthrough Innovation in Government." *Stanford Social Innovation Review*. 2013. (9 pages)
- Amia Srinivasan. "Stop the Robot Apocalypse." *London Review of Books*. 24 September 2015. (11 pages)
- Deryl Sturdevant. "(Still) Learning from Toyota." *McKinsey Quarterly*, 2014. (6 pages)

One pagers. (35% of grade) Students will submit three one-page decision memos or blog perspectives. The purpose of the assignments is to show mastery both of the concepts and communication skills persuading others of your views. Decision memos will be addressed to a social impact CEO (e.g., government commissioner, social enterprise founder) and will lay out the rationale for a key decision. Blog perspectives will address an industry audience with a well-argued thesis. In each exercise, students will be expected to take a point of view, estimate the potential impact, and explain the rationale – all in condensed, compelling prose. Writing assignments:

- One pager: Recommend why your employer (or another organization of interest) should adopt Lean
- One pager: Convince a regulatory or public safety agency to incorporate Voice of the Customer
- One-pager: What's one waste in the social sector and how could Lean address it?

Lean project scope / business model. (40% of grade) As a final project, students will complete either a project scope for a proposed Lean project at their workplace or another social impact organization or a business model for a new product or service (2-5 pages). These memos are typically used in the early stages of a Lean endeavor and then iteratively over the life cycle. To be effective, they must include hypotheses on how to deliver value to customers. For Lean projects, scopes typically include: Potential impact and hypothesis for achieving it, the voice of the customer, specific goals and metrics, benchmarks, and key team roles. Lean business models specify: value proposition, customer segments and relationships, partners / suppliers, resources, cost structure, and revenue stream. The audience for these documents is both the hypothetical executive sponsor or funder, who would give a go / no-go decision, as well as the team members who would play a role.

Weekly Schedule

Week 1: What is Lean?

The course will begin with an overview of Lean concepts and methods, including:

- History of Lean
- Seven types of waste (Tim Wood)
- DMAIC approach to problem solving (define, measure, analyze, improve, control)
- Pareto Principle ("for the most part")
- 5S: sort, set in order, shine, standardize, sustain
- Voice of the customer
- Kaizen and continuous improvement
- Gemba and engaging the frontline (worker empowerment)
- Lucy video

Pre-read

- Aristotle. *Physics*. Book II. 350 BC.
- Zack Rosenburg. "What a car company had to teach a non-profit about rebuilding faster after natural disasters." *Quartz*. 20 September 2016.

Assignment (due week 2)

- One pager: Recommend why your employer (or another organization of interest) should adopt Lean

Week 2: Pizza Kanban Simulation

Students will run three rounds of a Lean simulation typically used in training programs. After each round, students will reflect on the round, and key Lean concepts will emerge from the discussion.

- Kanban workflow visualization
- "Pull"
- Round 1 - Bake as fast as possible and see what happens.
- Round 2 - Introduce orders, stations, and WIP limits
- Round 3 - Self-organize
- Implications

Reading (to prepare for class)

- Mike George et al. *What is Lean Six Sigma?* McGraw-Hiill. 2004.
- Deryl Sturdevant. "(Still) Learning from Toyota." *McKinsey Quarterly*, 2014.
- Atul Gawande. "The Checklist." *The New Yorker*. 2007.
- Tom Agan. "The Secret to Lean Innovation Is Making Learning a Priority." *Harvard Business Review*. January 2014.

Week 3: Lean in Government

Many state governments have adopted Lean across regulatory, infrastructure, and operations. This class includes several examples.

- Innovation in the public sector
- Lean at state level (Iowa, Washington, New York, Colorado)
- Lean at the city level (NYC Health + Hospitals, Chicago Police Department)

Reading

- IDEO. "Innovation in Government."
- Nikhil Sahni et al. "Unleashing Breakthrough Innovation in Government." *Stanford Social Innovation Review*. 2013.

- "Chicago Creates 150 Additional Neighborhood Police Officers by Streamlining Administrative Operations." *US Mayor Newspaper*. August, 2009.
- Lean Program Office, The Governor's Office of State Planning and Budgeting. *State of Colorado Lean Program Office Progress Report: Pursuing Effective, Efficient and Elegant Government Services*. 2013.

Assignment (due week 4)

- One pager: Convince a regulatory or public safety agency to incorporate Voice of the Customer

Week 4: Guest Speaker(s) - Voice of the Practitioner

Students will hear from one or more practitioners and have a chance to interact directly with a leader in the field.

Reading

- Steve Blank. "Why the Lean Start-up Changes Everything." *Harvard Business Review*. May 2013.
- Mona El-Naggar. "In Lieu of Money, Toyota Donates Efficiency to New York Charity." *The New York Times*. 26 July 2013.
- Mark Friedman. *Trying Hard Is Not Good Enough*. Trafford. 2005. Chapters 1-2.

Week 5: Lean in the Social Sector

The course will shift to non-profit and social enterprise applications of Lean, highlighting similarities and differences from the first half of the course. Topics will include:

- Innovation at nonprofits and social enterprises
- Rapid prototyping / agile development (build-measure-learn)
- Use cases, collective impact, minimal viable product (MVP)
- Role of funders
- Real-time evaluation

Reading

- John Kania et al. "Collective Impact." *Stanford Social Innovation Review*. 2011.
- Michel Gelobter. *Lean Startups for Social Change*. Berrett-Koehler. 2015. Chapters 3, 10-12.
- Mike McCreless et al. "Metrics 3.0: A New Vision for Shared Metrics." *Stanford Social Innovation Review*. June 2014.

Assignment (due week 6)

- One-pager: What's one waste in the social sector and how could Lean address it?

Week 6: Models of Scaling Impact

Many social entrepreneurs want to change the world; the challenge is going from a small beginning to sustainable scale. This class will cover Lean concepts tied to increasing scale:

- Lean and the law of diminishing returns
- Ball room kaizen / parallel processing
- Skills, training, and common language (jargon)
- Role of advocacy and customer ambassadors
- Pivot / scrappiness
- Funding the journey

Reading

- Eric Ries. *The Lean Startup*. Crown. 2011. Chapters 9-12.
- Nathan Heller. "Bay Watched: How San Francisco's New Entrepreneurial Culture Is Changing the Country." *The New Yorker*. 14 October 2013.
- Amia Srinivasan. "Stop the Robot Apocalypse." *London Review of Books*. 24 September 2015.
- David Collis. "Lean Strategy." *Harvard Business Review*. March 2016.

Week 7: Student Presentations: Lean Project Charters / Business Models

As a final project, students individually or in teams will complete a Lean project charter for an improvement effort or a Lean business model for a new product or service. They may focus on a current, past, or prospective employer or another organization of interest or even a start-up. These will be presented in class to a hypothetical executive sponsor or funder, who would give a go / no-go decision, as well as the team members who would play a role.

Key concepts incorporated in a Lean scope:

- Potential impact and hypothesis (see case studies from weeks 3 and 4)
- Voice of the customer (see week 1 lecture and week 3 assignment)
- Goal, metrics, and benchmark (see weeks 2 and 5)
- Team members with clear roles (see week 6)

Key concepts incorporated into a Lean business model:

- Value proposition / Voice of the customer (see weeks 1 and 3)
- Customer segments and relationships (see week 6)
- Partners / suppliers (see week 2)
- Activities / resources (see week 5)
- Cost structure (see week 4)
- Revenue stream (see week 6)

Assignment (to be presented in class)

- Lean project charter / Lean business model