

**Health Policy and Management 430
Innovation and eHealth
Spring 2017**

Instructors: Paul Fu, Jr., MD, MPH
Phone: (310) 222-8088
E-mail: paul.fu@ucla.edu
Twitter: @puhfu

Class Time: Wednesday, 1 - 3:50 pm
Class Location: SPH 61-262
Class CCLE: <https://ccle.ucla.edu/course/view/17S-HLTPOL430-1>

Office Hours: Please call/e-mail for appointment

Introduction

eHealth is a neologism with many definitions. At its core, eHealth is about the application of emerging information technology to the healthcare delivery system, with the goal of improving or enabling health care. It can include everything from electronic health records and telemedicine initiatives to consumer health informatics tools and mHealth.

While this course is ostensibly about **eHealth and the Internet**, it is really about innovation. Innovation in healthcare requires people who can think and act like entrepreneurs but who also understand the constraints of the health care system at an operational and policy level.

Using examples, we will learn about the innovation process as applied to healthcare. The aim of the course is to provide you with the perspective and skills necessary to manage innovation-based projects, people, and initiatives.

Basic Principles

1. Anyone can innovate – all it takes is a great need and a great team
2. Innovation is collaborative
3. Innovation is multidisciplinary
4. Innovation begins with a problem, not a solution or a technology
5. Innovation is rapidly iterative – learn to fail, and fail fast

Course Outcomes/Competencies

<i>Learning Objectives</i>	<i>FSPH Competency</i>
1. Students will develop a comprehensive understanding on the basics of eHealth	F4 – Collaborate with communication and informatics specialists in the process of design, implementation, and evaluation of public health programs
2. Students will understand the theoretical framework for the design, development and implementation of eHealth	F6 – Use information technology to access, evaluate, and interpret public health data
3. Students will apply selected tools and techniques for project management of eHealth initiatives	K2.5 – Information Management: Understands the use of electronic clinical and management information systems and decision support tools K5.9 - Articulates the principles of leading organizational change, including assessment and measurement of organizational change efforts
4. Students will understand how current eHealth issues impact current health policy	K4.10 - Analyzes the effects of political, social and economic policies on health systems, community health, and access to care
5. Students will become familiar with the ethical issues related to the use of health information, including privacy, confidentiality, security, data and information ownership and secondary use	E2 - Describe the legal and ethical bases for public health and health services F1 - Understand the concepts of human subject protection and confidentiality F3 - Apply legal and ethical principles to the use of information technology and resources in public health settings
6. Students will understand the ideas and value of eHealth as it pertains to quality and process improvement	L2.5 - Quality and Performance Management: Understands and uses methodologies to assess, improve and monitor organizational quality and performance on diverse indicators; analyzes and designs or improves an organizational process, incorporating principles of quality measurement and customer satisfaction

Assignments and Suggested Readings

Where not identified in the syllabus, assignments and suggested readings will be posted on the CCLE site (<https://ccle.ucla.edu/course/view/17S-HLTPOL430-1>). Materials should be read before class so that students can participate fully in the discussions. Readings are available electronically.

There will be two group projects that provide you an opportunity to develop innovation skills using different frameworks.

The first project is based on the Human-Centered (HCD) online course led by +Acumen, created in conjunction with IDEO.org and focuses on asking the design challenge on how might we improve health in everyday life. The course materials will be posted on CCLE. The focus of this project is skill building. There will be a series of group in-class presentations based upon your out-of-class work. The only grade is for doing them.

The second project is the development of a healthcare innovation. There are several intermediate deliverables for this project and it will culminate in an angel VC or Capital Committee-style pitch for funding during week 10, with a hard stop on time (20 minutes presentation, 10 minutes Q&A), but, hopefully, more polite than a real VC pitch competition.

- Exercise 2.1: Topic identification
- Exercise 2.2: Need assessment and Brainstorming
- Exercise 2.3: SWOT analysis
- Exercise 2.4: Innovation Proposal: Solution development
- Exercise 2.5: Innovation Pitch

Some guidelines:

1. Address a specific need in healthcare in a novel way (i.e. innovation)
2. Dream big (novel, unique, ambitious) but be realistic (use existing technologies, acknowledge workflow issues, money exists)
3. Do research (what's been done already? What is possible?)
4. Identify next steps
5. Don't be boring!

Course Methodology

Theory and conceptual frameworks will be presented by the instructors using lectures, case studies, and class exercises/demonstrations. Discussions and article discussions will be used to facilitate the application of these concepts and frameworks to real organizational examples. Exercises require the student to apply the knowledge gained in the course.

Prerequisites

The student is expected to have a general familiarity of the Internet and understanding of basic information technologies and terms.

Grading

Grades will be assigned based upon class participation and performance on exercises:

- Class Participation (20%)
- Project 1 (40%)
- Project 2 (40%)

Notes

- Guidelines and instructions for the exercises will be distributed via e-mail and posted on the CCLE site (<https://ccle.ucla.edu/course/view/17S-HLTPOL430-1>).
- Written exercises must be submitted by the beginning of class on the due date by email or hardcopy.

Calendar

Session 1 (April 5, 2017): eHealth and Innovation – Identifying Needs

**Video: Scientific Innovation in America
Innovation**

Human-Centered Design (Inspiration)

Design Thinking

TEDTalk: David Kelley: Creative Confidence

Organize into project groups (4-6 per group)

Readings on CCLE

Assignment of Exercise 1.1: Human-Centered Design – Field Research

Assignment of Exercise 2.1: Identify a health care priority needing service innovation and transformation and identify what has already been done to meet that need.

Session 2 (April 12, 2017): Ideation and Brainstorming

Video: IDEO Shopping Cart Redesign

Human-Centered Design (Ideation)

TEDTalk: Steven Johnson: Where Good Ideas Come From

Stanford d.school Design Thinking Exercise – “Wallet”

Readings on CCLE

Exercise 1.1 due (field research findings presentation and slides)

Session 3 (April 19, 2017): Entrepreneurism and Invention

Journal Club

TEDTalk: Eric Dishman: Take Health Care Off the Mainframe

Case Study: Colby General Hospital

TEDTalk: Eric Topol: The Wireless Future of Medicine

Readings on CCLE

Assignment of Exercise 1.2: Human-Centered Design – Synthesis

Assignment of Exercise 2.2: Identify what has already been done (needs assessment) and what are the opportunities (brainstorming).

Exercise 2.1 due (presentation of topic selection, discussion)

Session 4 (April 26, 2017): Strategic Innovation Framework

TEDTalk: Charles Leadbeater: The Era of Open Innovation
Human-Centered Design (Brainstorming)
Stanford d.school Design Thinking Exercise – “Gift Giving”

Assignment of Exercise 1.3: Human-Centered Design – Brainstorming
Assignment of Exercise 2.3: SWOT analysis for consensus need

Exercise 1.2 due (synthesis findings presentation and slides)

Session 5 (May 3, 2017): Storytelling as a Tool

Sajid Ahmed – MLK Community Hospital

Sajid Ahmed ([🐦 @sajcookie](#)) is the Chief Information and Innovations Officer (CIIO) of Martin Luther King, Jr. Community Hospital and leads an Innovation Hub on the 42 acre MLK Community Hospital campus.

Human-Centered Design (Prototyping and Storytelling)

Exercise 2.2 due (presentation of need statements, discussion)

Session 6 (May 10, 2017): Perspective and Practical Innovation Tools

TEDTalk: Nancy Duarte: The Secret Structure of Great Talks

In-Class Exercise (from Session 4) due

Exercise 1.3 due (Brainstorming presentation and slides)
Exercise 2.3 due (SWOT discussion)

Assignment of Exercise 1.4: Human-Centered Design – Prototyping and Storytelling
Assignment of Exercise 2.4: Evaluate concepts and develop solution

Session 7 (May 17, 2017): Innovation in Practice

Case Study: The Cleveland Clinic: Improving the Patient Experience
TEDTalk: Jon Cohen: Why Don't Patients Behave Like Consumers?

Session 8 (May 24, 2017): Implementation/Delivery

John Nhieu – Kaiser Permanente Innovation Studio

John Nhieu is a Senior Managerial Consultant within the Kaiser Permanente Southern California Health Innovation department, located in Orange County. His current focus includes exploring, designing, prototyping, piloting and implementing innovative

solutions and services that advance health care for Kaiser Permanente's members. He believes health is at the core of people's lives and is interested in personalizing healthcare experiences based on individual lifestyles, conditions and preferences.

Case Study: UCSF Diabetes Center: Catalyzing Collaborative Innovation

TEDTalk: Daniel Kraft, MD: Medicine's future [innovations]

Exercise 1.4 due (Prototyping and Storytelling presentation and slides)

Exercise 2.4 due (presentation of concepts and discussion)

Session 9 (May 31, 2017): Investing in Innovation

Veenu Aulakh, MS – Center for Care Innovations

Veenu Aulakh ([🐦 @Aeenu_A](#)) is the Executive Director of the Center for Care Innovations (CCI) and is responsible for the organization's overall strategy, building critical partnerships, and helping to ensure CCI continues to make an impact in transforming safety net systems in California.

Journal Club – “Innovation and Bell Labs”

TEDTalk: Atul Gawande, MD: Checklists

Session 10 (June 7, 2017): Final Presentations and Wrap-Up

Exercise 2.5 due (presentation of solutions and discussion)