

Technology for Social Justice - Winter 2014

Honors 20, Monday/Wednesday 3.30-5.15 pm

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Office hours Wednesday 2.30-3.15 pm and by appointment

Center for Science, Technology and Society (in Nobili Hall)

<http://www.scu.edu/socialbenefit/index.cfm>

How can technological innovations address the basic human needs of four billion people living in poverty? What social and economic conditions affect the ability of technologies to impact the poor? And, what roles could Silicon Valley play in fostering innovation that for social justice?

This course investigates how some forms of technology, when combined with social entrepreneurship, can advance social justice goals and address the basic human needs of those living in extreme poverty. It has three parts. The first will review the causes and consequences of global poverty, the failure of many international development efforts, and the arguments about why development has failed. The central thrust of the course is the second part, which will examine the transformative potential of technology and social entrepreneurship (as well as their limitations) to address basic human needs of energy, health care, and water, drawing from a rich library of materials created by members of the CSTS network. The last part will investigate the role that the Silicon Valley entrepreneurial and innovation ecosystem could play in fostering technological developments to meet these basic human needs and alleviate global poverty.

Students will investigate the role of technology chiefly within the economic sectors where CSTS has core competencies. Examples include energy generation and distribution; water access and purification; and frugal health technologies.

Student evaluation will be based on the following

All of the six assignments are due by email on Fridays. Three of the assignments will be submitted as Word or Pdf files, and three by posting your assignment on a WordPress webpage. Very specific instructions on how to submit these will be provided about one week prior to due date in this folder <https://csts.box.com/s/eodmehicxkojgaa1m07u>

Assignment 1: Problem definition. In this assignment, you will outline a significant social problem caused by poverty, within a specific country or region, that is not currently being adequately addressed, and that has the potential to be addressed by a combination of technological innovation and social entrepreneurship. Begin with the Millennium Development Goals. This will be submitted as a Word or Pdf.

Assignment 2: Brief profile of a successful technology innovation for social justice. In this assignment, you will briefly profile an innovative technology solution that is being successfully used to address a social justice need in the developing world using social entrepreneurship. This will be submitted on your WordPress webpage.

Assignment 3: Score the scaling potential of an innovation presented by your fellow students and describe the innovation most likely to scale. Every student will present on a technology innovation for social justice on February 12, and its potential for scaling impact. Students will score the other presentations according the sheet provided, identify which you think is most likely to have the greatest social impact with investment, and explain why. This will be submitted as a Word or Pdf.

Assignment 4: Written case study of a technology innovation: can social entrepreneurship foster scale to impact? Select a social enterprise using technology and create a case study. This will be submitted on your WordPress webpage.

Assignment 5: An imovie on technologies promoting social justice. This will be submitted on your WordPress webpage.

Assignment 6: Take home final (email in during week 11). Drawing from readings, classroom discussion, and personal research project, use your moral imagination to chart out how you could help Silicon Valley foster scale to impact the poor. This will be submitted as a Word or Pdf.

Grade %age	Due	Description
5%	Jan 31	Social justice problem definition (paper)
10%	Feb 14	Profile of a successful technology innovation (WordPress)
10%	Feb 21	Score the scaling potential of innovations presented by your fellow students + profile of best (paper)
25%	March 3	Case study of a technology innovation: can social entrepreneurship foster scale to impact? (WordPress)
25%	March 14	iMovie on technologies promoting social justice (imovie inserted in WordPress)
15%	March 21	Social justice, Silicon Valley, and your vocation (paper)
5%		In-class presentations
5%		In-class participation
100%		Total

Academic integrity. “The University is committed to academic excellence and integrity. Students are expected to do their own work and to cite any sources they use. A student who is guilty of a dishonest act in an examination, paper, or other work required for a course, or who assists others in such an act, may, at the discretion of the instructor, receive a grade of “F” for the course.” Consult www.scu.edu/academics/bulletins/undergraduate/Academic-Integrity.cfm.

Disabilities Accommodations. To request academic accommodations for a disability, students must contact Disabilities Resources in Benson Center, (408) 554-4111 or TTY (408) 554-5445. Students must register with Disabilities Resources and provide appropriate documentation to that office prior to receiving accommodations.

Assigned readings

This course draws on different types of readings and expects you to use them in different ways. Some need to be studied, and some are collections of case studies to browse. Here are the different types of readings:

1. PUP = John Elkington and Pamela Hartigan. 2008. *The Power of Unreasonable People: How Social Entrepreneurs Create Markets that Change the World*. Harvard Business Press. Find this in the bookstore or in the kindle store.
2. HCPR = A hard copy printed reader from CopyCraft on Lafayette. The articles selected are general to multiple classroom activities and assignments. Most of them describe principles that apply to multiple case studies. **Find CopyCraft at: 341 Lafayette St, Santa Clara, CA 95050**
3. HBR = Harvard Business Review articles, which you must buy in order to download. (They are cheaper in digital pdf than buying in printed reader). **Coursepack link:** <https://cb.hbsp.harvard.edu/cbmp/access/23425326>
4. ER = An electronic reader available to download from the CSTS cloud library. I recommend you download the entire reader. **Electronic reader:** <https://csts.box.com/s/tmw5s4eg6q0wkmhxx8c>
5. GG = A Gated Garden of case study materials, available through the CSTS cloud library. These contain Keith's recommended technology case studies. You should use these materials first, and only travel beyond the gates into the Wild World Web after consulting with me. I recommend that you browse it and then select a topical domain and download that folder. The **Gated Garden:** <https://csts.box.com/s/1zd68eywp9x61uwge9yb> Before you begin exploring the GSBI investment profiles, however, I suggest you do some searches here <http://www.scu.edu/socialbenefit/resources/library.cfm?id=>
6. WWW = webpages and readings from the world wide web

Course schedule

Introduction to the Center, its work, and its interest in technology innovation for justice

1a. Monday January 6

WWW. UN Millennium Development Goals Report 2013

<http://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf> -- Be sure you recognize the role of targets and indicators.

Introduction to global poverty and development strategies

1b. Wednesday January 8

PUP: Introduction.

WWW. 200 years of economic progress by 200 countries in four minutes

<http://www.youtube.com/watch?v=jbkSRLYSojo>

ER. Sachs, J. D. (2005). Can Extreme Poverty Be Eliminated? *Scientific American*, 293(3), 56-65. This is a review of extreme poverty and its relationship with economic globalization; an overview of the MDGs and what they measure; and a justification for Sachs' idea for a big push in international development aid.

ER. Banerjee, Abhijit, and Esther Duflo. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. Public Affairs, 2011. Chapter 1. Poverty traps.

Optional, to skim for background on development: ER. Keeley, Brian (2012), *From Aid to Development: The Global Fight against Poverty*. Organization for Economic Cooperation and Development.

Optional: more Hans Rosling "Joy of Stats"
<http://www.gapminder.org/videos/the-joy-of-stats/>

Alternative development models: social entrepreneurship, microfinance, Base of Pyramid

2a. Monday January 13
PUP 1 (Creating Successful Business Models). Introduces social entrepreneurship, and three types of business models

HBR. Prahalad, C. K., & Hammond, A. (2002). Serving the world's poor, profitably. *Harvard Business Review*, 80(9), 48-59. Groundbreaking paper on the Base of the Pyramid.

ER. Hart, S.L., and C.M. Christensen. (2002). The Great Leap: Driving Innovation from the Base of the Pyramid. *MIT Sloan Management Review* 44, 1: 51-56.

Understanding technology and innovation

2b. Wednesday January 15
PUP 5 (Democratizing Technology)

HCPR. Winston, M. (2003). Children of invention. *Society, Ethics, and Technology*.
WWW. DEMAND - ASME Global Development Review – premier issue. Download apps <https://www.asme.org/network/media/demand> or read pdf in ER.

No class meeting on MLK Day January 20

Technology and economic development sectors

3b. Wednesday January 22

HCPR. Hystra (2011) Access to Safe Water for the Base of the Pyramid (p. 2-38)

HCPR. Hystra (2009) Access to Energy for Base of the Pyramid (p. 7-15)

ER. Neafsey, J. (2006). *A Sacred Voice Is Calling: Personal Vocation and Social Conscience*. Orbis Books. Chapter 1.

WWW. CSTS Energy Sector webpage especially energy map
<http://www.scu.edu/socialbenefit/entrepreneurship/energy/>

Frugal innovation

4a. Monday January 27. Visit Frugal Innovation Lab.

PUP 4 (Raising expectations for Bonsai Consumers)

HCPR. Basu, Radha, Preeta Banerjee and Elizabeth Sweeny. 2013. Frugal Innovation: Core Competencies to Address Sustainability. *Journal of Management for Global Sustainability* 1:2, 63-82.

HBR. Immelt, J. R., Govindarajan, V., & Trimble, C. (2009). How GE is disrupting itself. *Harvard Business Review*, 87(10), 56-65.

Reading and presenting social enterprise case studies

4b. Wednesday January 29. Gloria Hofer on WordPress.

ER. Macke, S., Misra, R., Sharma, A., & Prahalad, C. K. (2003). Jaipur Foot: Challenging Convention. *Michigan Business School*, 1-21.

ER. Sanal Kumar Velayudhan, Meenakshi Sundaram R. and Thulasiraj R. D. 2011. Aravind Eye Care System: Providing Total Eye Care to the Rural Population. *Ivey Business School*. 1-17.

5a. Monday February 3.

>>>>Student presentations: social enterprise innovations for social justice

Disruptive innovation for scaling social impact

5b. Wednesday February 5

HCPR. Harvey Koh, Ashish Karamchandani and Robert Katz. 2012. *From Blueprint to Scale The Case for Philanthropy in Impact Investing*. Read pages 2-29

ER. Dees, J.G., B.B. Anderson, and J. Wei-Skillern. (2004) "Scaling Social Impact." *Stanford Social Innovation Review* 1, 4: 24-33.

HBR. Christensen, C.M., H. Baumann, R. Ruggles, and T.M. Sadtler. 2006. "Disruptive innovation for social change." *Harvard Business Review* 84:94. Watch Christianson on video at <http://blogs.hbr.org/video/2012/03/disruptive-innovation-explaine.html>

6a. Monday February 10. Thane Kreiner on synbio. Readings in the Electronic Reader.

6b. Wednesday February 12

>>>>Student presentations: the scaling potential of innovations; assignment 3 is based on these

No class meeting on Presidents Day Monday 17 February

7b. Wednesday February 19. Lilly Wolfensberger on Ecotechnologies in Mexico Readings TBA.

Digging deeper into the Base of Pyramid concept

8a. Monday February 24

PUP 3 (Identifying Market Opportunities in 10 Great Divides).

HBR. Rangan, V. K., Chu, M., & Petkoski, D. (2011). Segmenting the Base of the Pyramid. *Harvard Business Review*, June, 1-6.

HCPR. Hystra (2013). Marketing Innovative Devices for the Base of the Pyramid. Pages 2-20.

ER. Gill, Kirrin, Kim Brooks, Janna McDougall, Payal Patel, and Aslihan Kes. (2010) Bridging the Gender Divide: How Technology Can Advance Women Economically. International Center for Research on Women.

8b. Wednesday February 26

ER. Koch JL, Hammond A. 2013. Innovation dynamics, best practices, and trends in the off-grid clean energy market. *Journal of Management for Global Sustainability* 2 (1): 121-139.

ER. Lighting Africa report (p. 1-32)

Social impact investment and more strategies for scaling

9a. Monday March 3

PUP 2 (Tapping financial resources), 7 (Scaling Solutions), conclusion

ER. Sasha Dichter, Robert Katz, Harvey Koh, & Ashish Karamchandani. 2013.

Closing the Pioneer Gap. *Stanford Social Innovation Review* Winter.

ER. Fisac-Garcia R, Acevedo-Ruiz M, Moreno-Romero A, Kreiner T. 2013. The Role of ICT in Scaling Up the Impact of Social Enterprises. *Journal of Management for Global Sustainability* 1: 83-105.

Magis and the vocation of Silicon Valley

9b. Wednesday March 5. Gloria Hofer on Imovie creation

HBR. Kao, J. (2009) "Tapping the World's Innovation Hot Spots." *Harvard Business Review* March, 2-9.

ER. Rich, Nathaniel. 2013. Silicon Valley's Start-Up Machine. *New York Times*. 3 May.

ER. Kenny, Charles and Justin Sandefur. 2013. Can Silicon Valley Save the World? *Foreign Policy*. July.

10a. Monday March 10

ER. Nicholas, A. (2010). Depth, Universality, and Learned Ministry: Challenges to Jesuit Higher Education today. Address by the Superior General of the Society of Jesus at "Networking Jesuit Higher Education: Shaping the Future for a Humane, Just, Sustainable Globe," Mexico City – April 23, 2010. 1-7.

WWW.http://www.americaabroad.org/radio/programs/documentaries/?prog=global_entrepreneurship

ER. Neafsey, J. (2006). *A Sacred Voice Is Calling: Personal Vocation and Social Conscience*. Orbis Books. Chapters 2-3.

10b. Wednesday March 12

ER. Santos NJ. 2013. Social Entrepreneurship that Truly Benefits the Poor: An Integrative Justice Approach. *Journal of Management for Global Sustainability* 1: 31-62.

>>>Student presentations

Finals week: Wednesday March 19 6.30 pm >>>>Showing of imovies in Library