

STP243. Humans, Machines, and Society

Summer 2017
Monday to Thursday

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Note: This is a draft version as of 3 January 2017. There may be some changes in readings and assignments.

Course Description: Machines are all around. Machines are in our houses, offices, and factories. They are even inside us. As engineers, designers, consumers, or operators, we are always living with machines. This course examines various modes of the co-existence of humans and machines in modern society. What do machines do *for* us? Or what do machines do *against* us? How is our humanity affected as we learn to live with machines from birth to death? In this course, we will attempt to think critically about these questions by looking at historical and contemporary examples of machines and their changing relationship with us.

In addition to a midterm essay and a final project, there will be some (fun) assignments related to the themes of each unit. We will use these assignments to facilitate serious discussion as well as some fun in-class activities.

Course Schedule and Reading Assignments

Unit 1: What is a machine?

General introduction to the main theme of this course.

Unit 2: Do you like machines?

Assignment: Bring to class a machine (or its picture) that you are in love with. Prepare a three-minute speech on the relationship between you and the machine.

* Nathan Greenslit, "The Vacuum Cleaner"; Judith Donath, "1964 Ford Falcon"; Trevor Pinch, "The Synthesizer"; Stefan Helmreich, "The SX-70 Instant Camera," all in *Evocative Objects: Thanks We Think With*, ed. Sherry Turkle (MIT Press, 2007)

Unit 3: Utility

Assignment: Bring to class a machine (or its picture) that you think is the most useful or important machine. Or, you can bring a machine that you think is absolutely useless or unnecessary in the world.

- * “Inventing Efficiency: Scientific Management, ca 1900-1940,” in *Major Problems in the History of American Technology*, eds. Merritt Roe Smith and Gregory Clancey (Boston: Houghton Mifflin, 1998), pp. 267-279.
- * “Ford, Automobility, and Mass Production, 1908-1941,” in *Major Problems in the History of American Technology*, eds. Merritt Roe Smith and Gregory Clancey (Houghton Mifflin, 1998), pp. 312-328.

Unit 4: Dependence

Think about how much you rely on machines in your personal and social life.

- * E. M. Forster, “The Machine Stops” (1909)
- * Anne Pollock, “The Internal Cardiac Defibrillator,” in *The Inner History of Devices*, ed. Sherry Turkle (MIT Press, 2008), pp. 98-111.

Unit 5: Confinement

Think about whether we are somehow confined in machines and cannot escape.

- * David Mindell, “Life in the Artificial World” in *War, Technology, and Experience aboard the USS Monitor* (Baltimore: The Johns Hopkins University Press, 2000), pp. 61-69.
- * Nick Paumgarten, “Up and Then Down: The Lives of Elevators” *The New Yorker* (21 April 2008)

Unit 6: Destruction

Think about the machines that can destroy our life and our world.

- * Evan Selinger, “The Philosophy of the Technology of the Gun,” *The Atlantic*, available at <http://www.theatlantic.com/technology/archive/2012/07/the-philosophy-of-the-technology-of-the-gun/260220/2/>
- * John Hersey, *Hiroshima* (New York: Vintage, 1989[1946]), pp. 1-16 and 66-90.

Unit 7: Field trip (to see interesting machines on KAIST campus)

Unit 8: Short essay submission and discussion

Unit 9: Infrastructure (didden machines)

Think about the machines that support our life and society behind the scenes.

Unit 10: Labor

Think about the diverse experiences of those who work with machines.

* Charles V. Bagli, “In a Crane at 1,100 Feet, There Is No Room for Error,” *New York Times* (22 May 2012), available at <http://www.nytimes.com/2012/05/22/nyregion/in-crane-far-above-manhattan-no-false-moves-allowed.html>

* Matthew Power, “Confessions of a Drone Warrior,” *GQ* (November 2013), available at <http://www.gq.com/news-politics/big-issues/201311/drone-uav-pilot-assassination>

Unit 11: Gender

Think about whether machines have anything to do with the relationship between men and women.

* Margery W. Davies, “Women Clerical Workers and the Typewriter: The Writing Machine,” in *Technology and Women’s Voices: Keeping in Touch*, ed. Cheri Mramarae (Routledge, 1988), pp. 23-32.

* Sherry Turkle, “TinySex and Gender Trouble,” in *Life on the Screen: Identity in the Age of the Internet* (Simon & Schuster, 1995), pp. 210-232.

Unit 12: Watch Documentary on Machines

Unit 13: Competition

Think about whether we can compete with increasingly smart and powerful machines.

* Brian Christian, “Getting Out of Book,” in *The Most Human Human: What Artificial Intelligence Teaches Us about Being Alive* (New York: Anchor Books, 2012), pp. 99-131.

* Garry Kasparov, “The Chess Master and the Computer,” *The New York Review of Books* (11 February 2010).

Unit 14: Resemblance

Think about whether robots resemble us or we resemble them.

* Karel Capek, *R.U.R.*

Unit 15: Humanity

Think about what it means to be human in the age of human-like machines.

* Sherry Turkle, “Love’s Labor Lost,” in *Alone Together: Why We Want More from Technology and Less from Each Other* (New York: Basic Books, 2011), pp. 103-125.

Unit 16: Final project presentation and discussion