

STS Studio

OVERVIEW

What are the grounds for rethinking dominant trajectories of emerging technologies such as smart cities, image recognition apps, or algorithmic decision-making? Technology-centered and industry-driven discourses around such technologies are techno-utopic, upholding ideals such as speed, efficiency, and control. But are we stuck with these values or are there alternative possibilities? If so, what might they look like? This course is centered on theoretical readings in philosophy, ethnography, STS, and design studies to critically engage the historical, social, and cultural grounding of emerging technologies while drawing on design-based practices and methods of inquiry to question their dominant logic and imagine alternate possibilities.

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Learning Outcomes

- To understand and appreciate design as a liberal art
- To understand philosophic foundations design as a way of knowing, being, and acting in the world
- To draw upon theories of social justice as a strategy for characterizing design problems and approaching design issues creatively and critically
- Hands-on experience in framing design problems and devising design strategies with awareness of the relevant ethical, political, and cultural issues

CLASS POLICIES

Evaluation

This course consists of discussions of selected readings, studio/critique sessions, and a set of projects.

Grades will be determined based on the following:

Project 1: 20%

Project 2: 40%

Blog entries; Wikipedia Updates; Individual Initiatives: 20%

Readings, discussion, and active participation: 20%

Attendance

Due to a significant amount of in-class material and work, prompt attendance and active participation in class discussions and group critiques is required. Two absences are allowed. After that, your grade will drop by one letter grade with every two absences. You will only earn a failing grade if you are absent for 6 sessions or more.

Readings

As you can see under grading section, I put a great emphasis on your preparation and participation in class. All of you are required to read the assigned papers/ book sections and be ready to discuss them in class.

Weekly blog reflections are due Monday of each week at 11am.

Information for Students with Disabilities

Please notify me if you have any disabilities with which you need special assistance or consideration. The campus disability assistance program can be contacted through ADAPTS: <http://www.adapts.gatech.edu>

Honor Code Statement

Students are expected to adhere to the Georgia Tech Honor Code: honor.gatech.edu

(NO)Laptops in Class

Please refrain from using laptops, iphones, ipads, or any other electronic devices in the classroom unless instructed to do so.

READINGS**Required**

All required readings will be distributed to the class via Canvass.

Please note that I strive to create a feminist learning environment centered on core qualities of curiosity, experimentation, generosity, community, humility, respect, and listening. I will explain the details of this on the first day of classes and look forward to your particular ways of following, extending, and amending these qualities partly by expressing what they entail in words and actions.

COURSE SCHEDULE

What's at Stake in Design of Emerging Technologies?

Week 1, August 19

COURSE OVERVIEW

Monday

Course Overview

Wednesday

Rosenberger, Robert. "How Cities Use Design to Drive the Homeless Away." 2014.
Winner, Langdon. "Do artifacts have politics?." *Daedalus* (1980): 121–136.
Project 1 Introduced

Week 2, August 26

Ethics: Do the Right Thing?

Monday

Richard Buchanan, Design Ethics, In *Encyclopedia of Science, Technology, and Ethics*, 504–509.
Parvin, Nassim. "Look Up and Smile! Seeing through Alexa's Algorithmic Gaze." *Catalyst: Feminism, Theory, Technoscience* 5, no. 1 (2019).
Phan, Thao. "Amazon Echo and the Aesthetics of Whiteness." *Catalyst: Feminism, Theory, Technoscience* 5, no. 1 (2019).

Wednesday

Sheppard, Alice. "Staging Bodies, Performing Ramps: Cultural-Aesthetic Disability Technoscience." *Catalyst: Feminism, Theory, Technoscience* 5, no. 1 (2019).
Wong, Alice. "The Rise and Fall of the Plastic Straw Sucking in Crip Defiance." *Catalyst: Feminism, Theory, Technoscience* 5, no. 1 (2019).
Doherty, Jacob. "Why Is This Trash Can Yelling at Me? Big Bellies and Clean Green Gentrification." *Anthropology Now* 10, no. 1 (2018): 93-101.

Project 1: Discussion of Selected Artifacts

Week 3, September 2

STUDIO WEEK

Monday

Monday: No class, Labor Day

Wednesday

Studio Day: Group Brainstorming and Critique Exercise

Week 4, September 9

A Working Framework

Monday

Buchanan, Richard. "Systems Thinking and Design Thinking: The Search for Principles in the World We Are Making." *She Ji: The Journal of Design, Economics, and Innovation* 5, no. 2 (2019): 85-104.

+ HSOC Speaker Series talk by Dr. Anne Pollock
Synthesizing Hope: Matter, Knowledge, and Place in South African Drug
Discovery, published by University of Chicago Press.

Recommended:

Buchanan, Richard. "Children of the moving present: the ecology of culture and the search for causes in design." *Design issues* 17, no. 1 (2001): 67-84.

Wednesday

Project 1: Critique and Discussion

DESIGN AND JUSTICE: THE PLURALISM OF PRINCIPLES

Week 5, September 16

Design and Justice :: Utilitarianism

Monday

Michael Sandel, Chapters 1 and 2.

JafariNaimi, Nassim. "Our Bodies in the Trolley's Path, or Why Self-Driving Cars Must Not Be Programmed to Kill."

Le Guin, Ursula K. 1993. *The Ones Who Walk Away from Omelas*. Creative Education.

Wednesday

Project 1: Critique and Discussion

Week6 , September 23

Design and Justice :: Markets and Libertarianism

Monday

Michael Sandel, Chapters 3 and 4.

Noam Cohen, *The Libertarian Logic of Peter Thiel*, WIRED Magazine

George Packer, *No Death, No Taxes: The libertarian futurism of a Silicon Valley billionaire*. <https://www.newyorker.com/magazine/2011/11/28/no-death-no-taxes>

Wednesday

Project 1: DUE

Week 7, September 29

Design and Justice :: Motives

Monday

Michael Sandel, Chapter 5

Merton, Robert K. (1936). "The Unanticipated Consequences of Purposive Social Action" (PDF). *American Sociological Review*. 1 (6): 904.

Selections from: Irani, Lilly. *Chasing Innovation: Making Entrepreneurial Citizens in Modern India*. Princeton University Press, 2019.

Cozzens, Susan E. "Distributive justice in science and technology policy." *Science*

and Public Policy 34, no. 2 (2007): 85–94.

Wednesday

Project 2. Assigned

Week 8, October 6

Design and Justice :: Virtues

Monday

Michael Sandel, Chapter 8, 9

Selections from: Atanasoski, Neda, and Kalindi Vora. *Surrogate Humanity: Race, Robots, and the Politics of Technological Futures*. Duke University Press, 2019.

Wednesday

Project 2. Crit 1.

Week 9, October 13

STUDIO WEEK

Monday

Fall Break

Wednesday

Project 2. Crit2.

Week 10, October 20

Design and Justice :: Relational Justice

Monday

Young, Iris Marion. *Justice and the Politics of Difference*. Princeton University Press, 2011. Chapters 1 and 2.

Kumar, Neha, Nassim Jafarinaimi, and Mehrab Bin Morshed. "Uber in Bangladesh: The Tangled Web of mobility and justice." *Proceedings of the ACM on Human-Computer Interaction* 2, no. CSCW (2018): 98.

Wednesday

Project 2. Crit3.

Week 11, October 27

Justice as a Hypothesis

Monday

JafariNaimi, Nassim, Lisa Nathan, and Ian Hargraves. "Values as hypotheses: design, inquiry, and the service of values." *Design Issues* 31, no. 4 (2015): 91–104.

Benjamin, Ruha. *Race After Technology: Abolitionist Tools for the New Jim Code*. John Wiley & Sons, 2019. Selections.

Wednesday

Project 2. Crit4.

Week 12, November 3

Student Selected Topics

Monday

TBD.

Wednesday
Project 2. Crit5.

Week 13, November 10

Student Selected Topics

Monday
TBD.

Wednesday
Project 2. Crit6.

Week 14, November 17

STUDIO WEEK

Monday:
Final Crit and Feedback on Project 2

Wednesday:
Final Crit and Feedback on Project 2

Week 15, November 24

THANKSGIVING

Week 16, December 1

Monday
Last Day of Classes, Final Reflection and Wrap-up