

Sociology 166: **SOCIETY & TECHNOLOGY**

CLASS HOURS Mondays, Wednesdays, and Fridays 9am-10am

LOCATION 101 Morgan

INSTRUCTOR Joseph Klett

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- Read [THIS](#);
- Always include “SOC166” in subject line;
- Email received after 2pm on Thursday will not receive a response until Monday afternoon *at the earliest*;
- DO NOT contact me through bCourses -- I won't see it.

OFFICE HOURS Mondays 12:30p-2:30p (in Social Sciences Building 484 or Zoom)
Tuesdays 10am-12pm (over Zoom)

- Please make office hours appointments [HERE](#)

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COURSE DESCRIPTION

What is the relationship between society and the stuff we call technology? Rather than accept that technology develops through some set of natural laws around which society can only react – an idea we call *technological determinism* – a sociological perspective reveals that society and technology are mutually constituted through a history of emerging constructions, conflicts, and coincidences. We will study a variety of cases about the social nature of technology in areas ranging from the factory to the home, the hospital to the ocean, and the desert to the internet. Through these cases we will consider questions of culture, politics, and ethics. Our goal is to discover the dynamic role of technology used in society, and the role of society in making those technologies. Remember the slogan: *it could always be otherwise*.

We begin by exploring the social aspects of the technological world at various scales (Part I). At the human level, there is the work of engineers who must negotiate the wants of machinery to ensure the technology “works.” Engineers enjoy a special authority and access – as well as responsibility – to design the gadgets and gizmos that shape the lives of consumers.

The products of engineering are always found in large technological systems, where the smallest change in one area will inadvertently change the conditions for all other elements in the system. This interdependence in turn generates unique cultural artifacts, for example, when rail travel and the industrial extraction of gold alter the language of film-making at the turn of the 20th century. The volatility of systems means that technology always entails some degree of risk. Accidents are a regular feature of the technological world, and society must negotiate its desire for technological advancement with its aversion to catastrophic failure – especially when the stakes are nuclear.

Following this overview at scale, we adjust focus to the social roles that technology produces (Part II). We may assume that technology is meant to serve the people who use it. But closer inspection reveals how technology produces its users through equal parts seduction and entrapment. This fact is vivid in the construction of interfaces, particularly those used in exploring outer and inner spaces otherwise hostile to human bodies. But we needn't look to the vacuum of space to appreciate how technologies enforce certain identities on its users and non-users: as feminist theorists have argued, technologies carry a long history of inclusion and exclusion which provide certain frontiers while blocking many others. Design ideals like modernism have notoriously created a technology indifferent toward the embodiment of its users. Such oversight has created categories of disability by demanding an impossible standard for what a human should be. For instance, we will consider the conflict inherent in hearing technologies which frame deafness as a disability, and counter-narratives from deaf culture which reject those technologies as solutions without a problem.

Once we have accounted for the scope of technologies and the social relationships they create, we turn our attention to the immediate technological situation that we find ourselves in today (Part III). Digital devices shape much of social interaction today. While often empowering, these technologies also require a new kind of presence in society which clashes with historical states of being in the world. That we have fully entered a period of machine learning, where algorithms evolve to guide our thoughts and dreams, is not merely a new mode for delivering old information. Algorithmic behavior now shapes our political and economic horizons. Dreams of rationality built from perfect information have been rekindled by talk of “big data.” Yet data collection and processing cannot outrun the limits of the humans who facilitate these processes, and this means digital technologies will continue to reproduce the biases of people. Ironically, pursuing broad sets of data to teach machines has led to an even broader forgetting of so much pre-digital information deemed irrelevant by the narrow purview of engineers.

And who are these engineers? Not to ascribe too much power to individuals, but the industrial leaders and cultural icons of Silicon Valley have done much to authorize our digital age. This includes an emphasis on society as a network made to resemble the technological systems which power and link our many devices. Yet elevating networks creates higher stakes for those who get left out, for example, by a digital divide which empowers a stratum of

technological 'haves' over an already impoverished underclass of technological 'have-nots'. This economic inequality is made even more volatile by the precarious role of digital infrastructure, a widely-neglected yet essential aspect of life in today's large technological systems.

In our final week of instruction we consider the future (Part IV). The more we understand about the relationship between society and technology, the better we can appreciate that there is not one future, but many possible *futures*. By reflecting on historical actions and alternative stories of technology, you will leave this course more knowledgeable about the future of our technological world and how life inside survives.

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COURSE REQUIREMENTS (% of final grade; all work submitted after the deadline will receive a 5% deduction per 24 hours)

- A) **Biweekly quizzes** (33%): You will complete two quizzes each week on the most recent lecture and the upcoming readings. Once you open the quiz you have 5 minutes to complete three multiple choice questions. You cannot change your answers once submitted. Quizzes will be assigned weeks 2-7 and 9-14.
- B) **Reading responses** (36%): You will complete three reading responses (2-3 pages each) that illustrate class material with an example of your choosing. These are due at the end of weeks 4, 7, and 13. Complete instructions will be provided in week 2.
- C) **Midterm** (15%): You will complete a take-home midterm consisting of three short-answer (1-2 page) prompts covering the first half of class.
- D) **Final** (15%): You will complete a take-home final consisting of three short-answer (1-2 page) prompts covering the second half of class.

EXTENSION REQUESTS

You should familiarize yourself with the lecture calendar and all deadlines. Do not take this class if you cannot accommodate this schedule. I will not grant extensions for any reason. DO NOT ASK FOR AN EXTENSION. If you must submit your work late, take the late penalty and get on with your life.

APPEALING A GRADE

I believe grades are a bureaucratic convenience which provide little more than perverse incentives and needless stress. And evidence overwhelmingly shows they have little impact on

social mobility in terms of careers and earnings. [Yet here we are](#). I have designed thoughtful assignments to meet the University's grading requirements while helping you get the most out of the course material. They are not meant to be arbitrary or punitive. I intend for you to learn from them and not merely to get a good grade. That said, if you are unhappy with a grade and feel it needs to be reassessed, I will give you a fair review process.

If you would like to appeal a grade, please email me a brief statement (250 words or less) including 1) a list of the deductions you received, 2) a summary of the Reader comments justifying these deductions, and 3) why you believe these deductions to be unjust. In my review, I will make the final determination to either increase, decrease, or make no change to your initial grade. You must submit your appeal within one week after the grade is posted; after this the grade becomes permanent and I will not consider any further appeals.

CITATIONS

All written work should include in-text citations and a complete bibliography using [Chicago style](#). Missing or incomplete citations will be penalized.

ACADEMIC HONESTY

You are expected to follow the [University guidelines for academic honesty](#). Violations include cheating and plagiarism, as well as self-plagiarism (submitting your own work from a different assignment). Any assignment content composed by a resource other than you, whether human or digital, must be attributed using proper citation. If you have any doubts, please speak to me or your Reader *before* your work is due.

Artificial intelligence (AI) language models, such as ChatGPT, may be used to summarize or contextualize source materials with your thorough review, cross-referencing, and appropriate citation. You may NOT use AI to write your work for you. You may NOT use AI for the Midterm and Final exams. Unattributed use of online platforms is considered academic dishonesty and will be treated as such.

SPECIAL NEEDS AND ACCOMMODATIONS

All students should be able to participate in this course. Please address any special needs you may have with me at the beginning of the semester, or when a challenge arises. If you qualify for accommodations because of a disability, please submit your accommodation plan from the Disabled Students' Program (DSP) to me by email, preferably within the first two weeks of the semester. Contact the DSP by phone (510) 642-0518 or by email to dsp@berkeley.edu.

DOING THE READINGS

To get the most out of this course it is important that you do the readings. I have carefully chosen each assigned reading to ensure it is a) accessibly written, b) mercifully brief, and c) relevant to the day's lecture. Expect to read around 30 pages per week, or 10 pages per lecture. Your engagement with the readings will be measured at regular intervals through quizzes, class discussion, reading responses and exams. I will offer guidance at the end of each lecture for the upcoming readings; I recommend you create a reading routine for the class so you are well-prepared for lectures and ready to complete your assignments on time.

COURSE OUTLINE

All readings can be found on bCourses under '[Files](#)' unless hyperlinked below.

WEEK.DAY DATE: Topic

1.1 **Wednesday 8/28:** Introduction

1.2 **Friday 8/30:** Social Construction of Technology

1. Ted Chiang. 2019. "What's Expected of Us."
2. Langdon Winner. 1985. "Do Artifacts Have Politics?"

PART I: The Technological World

Monday 9/2: NO CLASS

2.1 **Wednesday 9/4:** Engineering I

1. Jim Johnson (Bruno Latour). 1988. "Mixing Humans and Non-humans Together."

2.2 **Friday 9/6:** Engineering II

1. Lucy Suchman et al. 1999. "Reconstructing Technologies as Social Practice."

3.1 **Monday 9/9:** Shaping Things

1. Bruce Sterling. 2005. Excerpts from *Shaping Things*.

3.2 Wednesday 9/11: Systems I

1. Thomas Hughes. 1986. "The Evolution of Large Technological Systems."

3.3 Friday 9/13: Systems II

1. Joseph Klett. 2018. "[Second Chances.](#)"

4.1 Monday 9/16: Accidents I

1. Charles Perrow. 1984. "Introduction" in *Normal Accidents*.

4.2 Wednesday 9/18: Accidents II

1. Jessica Murphy. 2018. "[Lac-Megantic: The runaway train that destroyed a town.](#)"

4.3 Friday 9/20: (Nuclear) Power

1. Gabrielle Hecht. 2014. "Invisible Production and the Production of Invisibility."

Sunday 9/22: Reading response #1 DUE

PART II: The Sociality of Machines

5.1 Monday 9/23: Users I

1. Claude Fischer. 1988. "Gender and the Residential Telephone, 1890-1940."

5.2 Wednesday 9/25: Users II

1. Nelly Oudshoorn and Trevor Pinch. 2003. "How Users and Non-Users Matter."

5.3 Friday 9/27: Infrastructure

1. Nicole Starosielski. 2015. "Against Flow."
2. Stephen Shankland. 2023. "[The Secret Life of the 500+ Cables that Run the Internet](#)."

6.1 Monday 9/30: Feminist Technoscience I

1. Sahil Chinoy and Chloe Weiner. 2016. "[What Does a Hacker Look Like?](#)"

6.2 Wednesday 10/2: Feminist Technoscience II

1. Susan Leigh Star. 1991. "Power, Technology and the Phenomenology of Conventions."

6.3 Friday 10/4: Inconvenient Bodies

1. Ben Goldfarb. 2015. "[Look Down at Your Body. You Have Become a Coral.](#)"
2. Amanda Morris. 2022. "[What Flying Is Like for Passengers Who Use Wheelchairs.](#)"

7.1 Monday 10/7: Disability I

1. Jonathan Sterne. 2015. "Hearing."
2. LISTEN: *99pi*. "[Craptions.](#)"

7.2 Wednesday 10/9: Disability II

1. Mara Mills. 2015. "Deafness."

7.3 Friday 10/11: The Electronic Ear

1. David Polansky. 2019. "[Digital Hearing Aids Turn the World into a Giant MP3 File.](#)"

Sunday 10/13: Reading response #2 DUE

8.1 Monday 10/14: Midterm Review I (in class)

8.2 Wednesday 10/16: Midterm Review II ([ZOOM](#))

Friday 10/18: TAKE-HOME MIDTERM (**DUE Sunday 10/20**)

PART III: The Digital Age

9.1 Monday 10/21: Gadgetry I

1. Matt Ratto. 2007. "Ethics of Seamless infrastructures."

9.2 Wednesday 10/23: Gadgetry II

1. Douglas Rushkoff. 2013. "Preface" and "Narrative Collapse" in *Present Shock*.

9.3 Friday 10/25: Attention Deficits

1. Jelle Bruineberg. 2023. "[Your Phone Gives Your Mind What It Likes The Most](#)."

10.1 Monday 10/28: Algorithms I

1. Malte Ziewitz. 2017. "A Not Quite Random Walk."

10.2 Wednesday 10/30: Algorithms II

1. Kashmir Hill. 2014. "[You Can Hide Your Pregnancy Online But You'll Feel Like a Criminal.](#)"
2. Janet Vertesi. 2023. "[Data Free Disney](#)."

10.3 Friday 11/1: Terminal Velocity

1. Alexis Madrigal. 2010. "[Market Data Firm Spots the Tracks of Bizarre Robot Traders.](#)"

11.1 Monday 11/4: Big Data I

1. danah boyd & Kate Crawford. 2012. "Critical Questions for Big Data."

11.2 Wednesday 11/6: Big Data II

1. Emily Larson. 2020. "Big Questions."

11.3 Friday 11/8: Digital Amnesia

1. Tripp Mickle. 2022. "[Who Gets the Last Word on Steve Jobs? He Might.](#)"

Monday 11/11: NO CLASS

12.1 Wednesday 11/13: Silicon Valley I

1. Fred Turner. 2009. "Burning Man at Google."

12.2 Friday 11/15: Silicon Valley II

1. Lilly Irani. 2015. "Hackathons and the Making of Entrepreneurial Citizenship."

13.1 Monday 11/18: Networks I

1. Kevin Hampton. 2010. "Internet Use and the Concentration of Disadvantage."

13.2 Wednesday 11/20: Networks II

1. Forrest Stuart. 2020. "Code of the Tweet."

13.3 Friday 11/22: The Digital Divide

1. Andrew Spaulding. 2015. "I used a 56K modem for a week and it was Hell on Earth."

Sunday 11/24: Reading response #3 DUE

Monday 11/25, Wednesday 11/27 & Friday 11/29: NO CLASS

PART IV: The Future

14.1 Monday 12/2: Futures I

1. Vincanne Adams et al. 2009. "Anticipation."

14.2 Wednesday 12/4: Futures II

1. Kodwo Eshun. 2003. "Further Considerations of Afrofuturism."
2. Jameson Wetmore. 2007. "Amish Technology."

14.3 Friday 12/6: Life in the Future

1. Michelle Bastian. 2012. "Fatally Confused."

15.1 Monday 12/9: Final review I (in class)

15.2 Wednesday 12/11: Final review II ([ZOOM](#))

Friday 12/13: TAKE-HOME FINAL (DUE Sunday, 12/15)