



Sociology, School of Social Sciences
HS2020: Gender, Race and Technology
AY 2020-21, Semester 2

Lectures: Tuesday, 11:30am-1:30PM, LT29

Should it be necessary due to extraneous circumstances, we will move both lectures and tutorials to Zoom.

<https://ntu-sg.zoom.us/j/5935357050>; Meeting ID: 593 535 7050; Passcode: 981107

Tutorials: in-person

Tuesday, LHS-TR+25

T1 – 2:30-3:30pm

T3 – 3:30-4:30pm

T4 – 4:30-5:30pm

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Office: SHHK-05-30 or on Zoom-link

Office hours: by appointment through Zoom (see link above)

COURSE AIMS

You are taking this course at a critical time in our contemporary history. One need only look at the rapid acceleration and dissemination of surveillance technologies, such as TraceTogether, for pandemic management to know that the global race to develop technological solutions to social and political problems is well underway. Yet such techno-economic policies do not go unchallenged, especially considering the public opposition to facial recognition technologies or the widespread critiques of algorithms that highlight their built-in biases.

Often, such 'techno-solutionism' is undertaken through the rhetoric of social progress, sustainability, and resilience. But what do these words mean, and how are they put into practice, especially when they intersect with other values we may share, such as mitigating inequality and inequity, protecting the high-risk and vulnerable, and conserving our environment?

With the rise of Big Tech and algorithmic injustices, this module revisits various kinds of technologies from the everyday and mundane to the most esoteric to examine

how ideas of gender, race and sexuality have shaped the development of particular technologies, and how these technologies, in turn, have reproduced the categories of race, gender and sexuality.

In this module, we will have two starting assumptions:

- (1) Existing social relations and power dynamics—including inequalities stemming from sexism and racism—are built into technologies;
- (2) Technology is not neutral, but instead, is inscribed with the power relations of their builders and users.

Throughout the semester we will examine how gender, race and technologies intersect in history, culture and contemporary politics. Using case studies that vary geographically, you will learn about the gender and racial politics of technology in media and film, biomedicine, international development, the environment, work and home, and artificial intelligence. We will focus on the following questions:

1. Instead of viewing women and minorities as passive consumers of technology who have not produced anything, how have they actively produced different technologies, often with different goals in mind?
2. How have technological advancements in biomedicine and genetics, housework, surveillance, artificial intelligence, social media and international development shaped how we think of gender and race?
3. How have technologies perpetuated injustices related to gender, race, and sexuality?

The course is organized into two broad themes. Part I, “Theory” will be devoted to the first five weeks of class, where we will read works of leading scholars on the intersections of technology, race and gender, especially how the “status quo” and “business as usual” has come to be so incredibly stubborn and enduring. In cases where reading is too challenging, such as Donna Haraway, I have assigned interpretations of her work, with the option of reading primary text. While these weeks will also have case studies to help us understand the theoretical content, the subsequent weeks will be devoted entirely to different case studies to help us see a wide variety of contemporary and historical examples of how deeply ideas of race and gender are baked into the development of technology.

TEACHING PHILOSOPHY

The pedagogical philosophy behind this course is the refrain, “the personal is political” whereby one recognizes how problems that seem to be isolated and individual are actually systemic and social, but where one also sees the irreducible creativity in human agency. While we will be trafficking in writings about the powers of the state, corporate entities, social movements, we will also be reflecting on our own “positionality” in society—that is, how we as citizens, subjects and consumers are hailed into being with particular privileges and disadvantages in society. Yet we also remake different realities through our individual actions and agencies. Thus, far from being merely focused on the workings of systemic structures, we will also interrogate the

construction of the personal, the self, and our own realities to show the fluid qualities of the structures and societal “givens” we take for granted.

TEACHING APPROACHES

This module focuses on theories that have been developed through empirical investigations. You will be asked to continuously apply—and challenge—the theories you learn in the first five weeks of class to the various articulations of gender, race and technology that we will encounter in different settings. The three memos allow you to think through the readings, ask questions, and prepare you for writing the critical essay. The team-project of designing a feminist technology is intended to put your critical and imaginative skills to use by designing a technological intervention that is intended to mitigate racial and gender inequalities. You are asked to stretch your creative skills by coming up with communicative formats that are ‘nontraditional’ whilst retaining a critical eye on the gendered and racial implications of your technology. In addition to readings, you will have short films and videos interspersed throughout the term. These ‘shorts’ are intended to provoke reflection and application of concepts we have been learning throughout the semester.

Lectures and tutorials will provide theoretical foundations and frameworks, which act as road maps, so that when you approach the readings, you can make connections between weeks and across different theoretical concepts. Throughout the semester, you will be encouraged to engage with the course material independently, to ask questions, raise disagreements and doubts, and make sense of tensions and contradictions.

I will try to keep lectures only to an hour, and in the remaining time show different media that you will then interrogate in your groups

INTENDED LEARNING OUTCOMES (LOs)

1. Critique utopian narratives of technological progress.
2. Explain how women, minorities and minority women have both been impacted by and produced technologies in the home and workplace
3. Apply the concept of ‘cyborg’ to see how the differences between man and machine are more fluid in our daily lives.
4. Evaluate how different technologies are shaped by, and in turn shape, notions of gender and race

OTHER CLASS POLICIES

Lectures: All of my slides will be available on NTULearn for you, and I will give those to you before the actual synchronous lecture, so you can follow along. If you would like to record the lecture, you are free to do so. Please try not sell your notes on Carousell, but you are a neoliberal citizen, and I cannot really stop you.

Deadlines and Missed Classes: Unless you have a legitimate and documented excuse for not being able to turn in an assignment on time, deadlines will not be extended and a late assignment will be penalized by half a letter grade per day that it is late. If you miss a class, please obtain notes from a classmate.

Academic integrity: All members of the NTU community are responsible for upholding the values of academic integrity. Students are expected to have fully read current academic policies regarding academic honesty at <http://academicintegrity.ntu.edu.sg> **Please submit your plagiarism pledges with each assignment!**

*******IMPORTANT INFORMATION*******

Online Platforms (in the event we have to move online)

- Zoom for lectures (<https://ntu-sg.zoom.us/j/5935357050>; passcode: 981107)
- Bb Collaborate Ultra for weekly discussions, using Google Docs

Semester Deliverables

1. Three reflective memos (**due January 26, February 23, March 30**)
2. One critical essay of 2-3 pages (**due April 6**)
3. One group project, Design a Feminist Technology, with two components (**Due April 13**)

Your Semester-Long Group:

1. The first week of class, you will form yourselves in your chosen group of 4 students. You should endeavor to be in a group with students who are part of your tutorial.

Consultations

- I will hold consultations by appointment only. **If you email me questions, I will likely send audio-recorded responses, although I will try to type out answers**
- **We will use tutorials for consultations on your group projects on March 16, March 23 and April 6.**

ASSIGNMENTS

1. Tutorial reading and participation (10%)

Reading assignments should be completed by the time of the lecture. Every week, one person in your group will be in charge of leading discussion in small-group contexts and then reporting out to the larger group. We will sort out groups the first day of class. The groups will all contribute to writing out their conversation on a Google Doc.

Please sign up for your tutorial groups:

<https://docs.google.com/spreadsheets/d/1C7YY5B5yFqAJu0O5dxjgmoSz0PTsA3qOw8Wpb4f8B7s/edit?usp=sharing>

2. THREE reflective memos (total 35%)¹

Memo #1: 10% due January 26

Memo #2: 10% due February 23

Memo #3: 15%, due March 30

Thrice over the semester you should write a memo reflecting on what you have learnt in that part of the course. Your memo should be 500 words. You should draw on lectures and readings. Use your own words, formulate questions, contemplate answers, and take stock of what you've learnt thus far. Your goal is to reflect upon your relationship with a particular technology through the lens of race and gender.

¹ Adapted from the OBTL for Teo You Yenn for HS2008

3. Critical Essay (25%) due on April 6²

You will be responsible for writing ONE minimum 4 page (double spaced, Times New Roman, 1-inch margins, 12-point font).

You can choose one of the following questions:

- 1) In your own lives, how do you see race, gender and technology intersect? You might consider a particular technology—it could be our phones, coffee, a biomedical intervention or a wearable technology or something else—in order to (a) analyze how it makes us a cyborg, and (b) how this technology disrupts some of the traditional binary categories we unthinkingly use, such as male/female, animal/human, human/machine, ability/disability.
- 2) What is a feminist as opposed to a feminine technology? Consider an example (it may be one we read about and discussed in class, like cosmetic surgery, birth control pills, the vacuum cleaner, the breast pump or the tampon, or another different one of your own choosing) and explain what claims have been made for it as a feminist technology. Do you agree that this technology promotes freedom/liberation for women? Why or why not? What is the distinction being made between a "feminist" and a "feminine technology," and is this a useful one?

4. Design a Feminist Technology (30%) due April 13

This will be a small group project with the option of individual endeavors, where you will examine the role of social theory in your everyday lives and interests. For your empirical material, you will choose any sociocultural phenomenon of interest to you, such as the environment and climate change, pandemics, technology, education, human-animal relationships, medicine, marketing, family, religion, music, movies, sports or art. You can consider these topics within the national context of Singapore, but also on regional or global scales. You will analyse your chosen subject through any one of the critical lenses we will have covered, including: gender, race or disability, biopolitics and governmentality, various forms of capital, postcolonialism and subalterneity, science and technology studies, colonization and decoloniality, the politics of affect and assemblages. This project will have three components:

- (1) a 4 page minimum, double-spaced written document of your analysis (15%),
- (2) a final presentation that has visual components, which can include slides, photos, short films, performance or other imaginative effort that showcases your creativity (15%);
- (3) a peer-review of one another.

² These questions have been adapted from K.J. Surkan. WGS.115 Gender and Technology. Spring 2013. Massachusetts Institute of Technology: MIT OpenCourseWare, <https://ocw.mit.edu>. License: Creative Commons BY-NC-SA.

COURSE ORGANIZATION

Some readings may change, so please make sure you do not delete emails from me!
All readings are available through links found on the syllabus or Google Drive

PART I: THEORY

WEEK 1 | Jan 12 Introduction: Intersections of Technology, Gender and Race

Lecture: The stakes of this course. Why social theory?

In class: Reference Man, Samantha Bee

https://www.youtube.com/watch?v=RTIRWSxF_gg&list=UU18vz5hUUqxbGvym9ghtX_w&index=10&fbclid=IwAR3eg0aYLO4GcvZ-b2c0FMXW7c4Y7FlfY4Yb7HzGkGfG7grNE1jHuSVxhWs

WEEK 2 | Jan 19 Theorizing Gender and Technology (heavy reading load!)

Readings for lecture:

Hari Kunzru. (1997). "You are Cyborg." Wired. <https://www.wired.com/1997/02/ffharaway/>

Judy Wajcman. (2010). "Feminist Theories of Technology," Cambridge Journal of Economics. 34, 143-152.

Bray, Francesca. (2007). "Gender and Technology." Annual Reviews Anthropology. 36: 37–53.

Suggested readings:

Donna Haraway, "A Cyborg Manifesto: Science, Technology and socialist-feminism in the late twentieth century."

In class: Short film, *Advantageous* (~25 minutes)

WEEK 3 | Jan 26 Writing women into the history of technological development

Class Cancelled due to Prof Monamie's illness

WEEK 4 | Feb 2 Writing women into the history of technological development

Readings for lecture: ****Memo 1 Due****

Cowan, Ruth Schwartz. "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the 20th Century." Technology and Culture 17, no. 1 (1976): 1–23.

Elizabeth F. Churchill. (March/April 2010). "Sugared Puppy-Dog Tails: Gender and Design." Interactions 52-56.

Kennedy, Pagan. (17 June 2020). "The Rape Kit's Secret History." The New York Times.

<https://www.nytimes.com/interactive/2020/06/17/opinion/rape-kit-history.html#commentsContainer>

Dutta, D. (2018). "Women's discourses of leadership in STEM organizations in Singapore: Negotiating sociocultural and organizational norms." Management Communication Quarterly, 32(2), 233-249.

In class: Excerpts from *Hidden Figures*

WEEK 5 | Feb 9 Intersectionality: Race, gender and technology

Readings for lecture:

Dorothy Kim, TreaAndrea M. Russworm, Corrigan Vaughan, Cassius Adair, Veronica Paredes, T. L. Cowan, Anna Everett, Guisela Latorre. (2018). "Race, Gender, and the Technological

Turn: A Roundtable on Digitizing Revolution." *Frontiers: A Journal of Women Studies*, Volume 39(1): 149-177

Benjamin, Ruha. (2019) "Introduction" *Race After Technology: The New Jim Code*. Polity Press.
"Case study: Criminal machine learning." (2017). [Callingbullshit.org](https://callingbullshit.org).

https://callingbullshit.org/case_studies/case_study_criminal_machine_learning.html

Short documentary: Kimberlé Crenshaw TEDTalk on Intersectionality

PART II: CASE STUDIES

WEEK 6 | Feb 16 Neoliberal technologies of self

Readings for lecture:

Shenk, Timothy (2015). "Booked#3 What Exactly is Neoliberalism: An Interview with Wendy Brown." *Dissent Magazine*.

Fetters, Ashley (2018). "The 5 years that changed dating." *The Atlantic*.

<https://www.theatlantic.com/family/archive/2018/12/tinder-changed-dating/578698/>

de Roox, R. S., & Baidon, M. (2019). "MySkillsFuture for students, STEM learning, and the design of neoliberal citizenship in Singapore." *Cognition and Instruction*, 37(3), 285-305.

In class: Black Mirror "Nosedive"

WEEK 7 | Feb 23 Feminist technologies of 'empowerment' (heavy reading load!)

Readings for lecture: ****Memo 2 Due****

Johnson, Deborah. (2010) "Sorting out the Question of Feminist Technology." In *Feminist Technology*. Edited by Linda Layne, Sharra Vostral, & Kate Boyer. University of Illinois

Layne, Linda. (2009). "The Home Pregnancy Test: A Feminist Technology?" *WSQ: Women's Studies Quarterly*, 37(1/2): 61-79

Baker, Sarah Elsie. (2018). "Post-work Futures and Full Automation: Towards a Feminist Design Methodology." *Open Cultural Studies*. 2: 540-552.

"Can a Design Process Rooted in Gender Theory Truly Work in Practice?" (2018).

<https://eyeondesign.aiga.org/can-a-design-process-rooted-in-feminist-theory-truly-work-in-practice/>

In class: Why we need to design feminist AI <https://www.youtube.com/watch?v=E-O3LaSEcVw>

WEEK 8 | Mar 9 Women and technology in the workplace

Readings for lecture:

Wajcman, Judy. "The Feminization of Work in the Information Age." In *Women, Gender, and Technology*. Edited by Johnson, Fox and Rosser. University of Illinois, 2006, 80-97.

Dunbar-Hester, Christina. "Introduction." *Hacking Diversity: The Politics of Inclusion in Open Technology Cultures*. Princeton University Press, 2019.

Read through various short opinion pieces in "Hacking Tech Sexism in the Time of GamerGate." *New York Times*. <https://www.nytimes.com/roomfordebate/2014/10/29/reversing-gender-bias-in-the-tech-industry>

WEEK 9 | Mar 16 Gender, race and biomedical technologies (heavy reading load!)

Readings for lecture:

Caroline Criado Perez. (2019). Choose three excerpts from *Invisible Women: Data Bias in a World*

Designed for Men. Vintage Publishing. <https://ntu.overdrive.com/media/4554969>
Murphy, Michelle. (2017). Excerpts from *The Economization of Life*. Duke University Press
In class: <https://www.vox.com/health-care/2017/12/7/16746790/health-care-black-history-inequality>

GROUP MEETINGS in second half of LECTURE as well as in TUTORIALS

WEEK 10| Mar 23 Feminist and anti-racist concerns over surveillance

Readings for lecture:

Nicole Shephard. (2016). "5 reasons why surveillance is a feminist issue."

<https://blogs.lse.ac.uk/gender/2016/06/02/5-reasons-why-surveillance-is-a-feminist-issue/>

Mark Johnson, Maggy Lee, Michael McCahill and Ma Rosalyn Mesina. (2019). "Beyond the 'All Seeing Eye': Filipino Migrant Domestic Workers' Contestation of Care and Control in Hong Kong." *Ethnos*. 85(2): 276-292

University of Colorado, Boulder (2019) "Facial recognition software has a gender problem."

Eureka! https://eurekaalert.org/pub_releases/2019-10/uoca-frs102919.php

GROUP MEETINGS in TUTORIALS

WEEK 11| Mar 30 Feminist Approaches to Technology for International Development

Readings for lecture: ****Memo 3 Due****

Shiva, Vandana. (2007) "Bioprospecting as Sophisticated Biopiracy." *Signs: Journal of Women in Culture and Society*. Vol 32, no. 2: 323–31.

Parthasarathy, Shobita. (2019). "The power (& disempowerment) of Menstrual Hygiene Management." *Discard Studies* <https://discardstudies.com/2019/10/14/the-power-and-disempowerment-of-menstrual-hygiene-management>

Murphy, Michelle. (2017). "Invest in a Girl." *The Economization of Life*. Duke University Press

WEEK 12| Apr 6 Technology, Activism and Critical Intimacies

Readings for lecture: ****Critical Essay Due****

Benjamin, Ruha (2019) *Race After Technology: Abolitionist Tools for The New Jim Code*. Polity. Excerpts

Bray, Francesca (2008). "Constructing Intimacy: Technology, Family and Gender in East Asia." *East Asian Science, Technology and Society: An International Journal*. 2:151-165.

In class: Short films: *Genocracy* and a talk on the #MeToo movement

GROUP MEETINGS in TUTORIALS

WEEK 13 | Apr 13 Presentations (lecture and tutorials) **Group Project Due******