



**Syllabus: HUM 352/HIST 580**  
**Gender and Technological Change**

**Illinois Institute of Technology**

Fall 2020 (Class meeting time: Asynchronous online with optional group meetings--no formal weekly class meeting)

Professor Hicks (email: [mhicks1@iit.edu](mailto:mhicks1@iit.edu) office phone: 312 567 3464)

Office hours: Online, every other Wednesday from 8-9pm CT & every other Monday 5pm-6pm CT by appointment. Please use this link to set up an appointment: <https://calendly.com/marhicks>

**Course Description:**

How does gender matter to technology, and how has it mattered in the past? This course asks students to look at these two questions and in the process learn about why gender—along with other categories like race, class, ability, and sexuality—are important for understanding technological progress. Technological change is meant to bring improvements to society, but many technological changes privilege some users and creators while marginalizing others. By looking at this history and confronting some of these current problems we can begin to undo the mistakes of the past that still shape our interactions with technological infrastructure. Unearthing these hidden or ignored narratives gives us better insight into the promises and pitfalls of our technological present by expanding and deepening our understanding of our technological past.

This course also explores how technological objects and tools participate in molding elements of our culture that we may take for granted as logical or timeless. By looking at change over time, we will analyze the different ways technology affects how we live and see ourselves. You will also have the opportunity, through class discussions and assignments, to apply what you learn to current debates and pressing issues. We will read works from science studies, history, sociology, and other disciplines to give you the tools you need to understand and analyze how technology and society interact, and how social categories both change, and are changed by technological development. We will analyze how oftentimes technological progress becomes a stand-in for the status quo, rather than true progress, and why US society is reaching a watershed moment where incorporating more viewpoints in the design and deployment of our technological systems is becoming increasingly important. Throughout this class, we will question whether socioeconomic progress and technological advance are always as aligned as they seem, and we will investigate the new insights that emerge when we decouple the two.

**Grade breakdown:**

Due to the COVID 19 pandemic's disruption of everyone's lives, the structure and the grading for this course will try to be flexible and allow for possible changes. The general outline of how you can expect to be evaluated is below.

Class participation (online): 25%

Short writing exercise(s) including discussion board work: 25%

Midterm: 25%

Final: 25%

### Academic Honesty:

Read the Student handbook section on Academic Honesty and be sure you understand it. Cheating, plagiarism, or any other kind of academic dishonesty is grounds for a failing grade in the course. All work is expected to be your own unless you have explicitly been assigned to collaborate with others. The code of student conduct and the sections on academic honesty in the student handbook are here: <https://web.iit.edu/student-affairs/handbook>. If you are still confused, speak with me **before** you pass in an assignment. Remember that it is *never* appropriate to use someone's ideas or words without giving them credit, and that copying text from sources or peers—in addition to being plagiarism and cheating—short-circuits the learning process and is the exact opposite of what I want to see.

### Pandemic Policy Statement:

My goal is for you to be able to complete this course and for the educational experiences provided by it to add to your life rather than be a burden during a difficult time. To that end, I will try to be as flexible as possible and to provide as many of the resources you need in order to complete this course as I can. I understand that if you or your loved ones get sick you may need to be away from class to recover (and this may also happen if I become sick or need to care for ill loved ones). My goal is for everyone to pass this course and for all of us to make it through this difficult semester together.

### Americans with Disabilities Act (ADA) Policy Statement:

Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students are asked to obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) is located in 3424 S. State St., room 1C3-2 (on the first floor), telephone: [312.567.5744](tel:312.567.5744) or [disabilities@iit.edu](mailto:disabilities@iit.edu). If you need resources but cannot file the paperwork for an ADA accommodation please let me know and I will still do my best to accommodate your needs.

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## **Class Schedule:**

### **Week 1: Aug 24-28**

#### **Introduction and Getting Started**

This week we will get started slowly, by getting to know the systems we are going to be using and getting to know each other a little bit. You should also start doing the readings for next week, listed below. Assignments: Read the welcome email I sent and follow the instructions to get set up on the class site, the message boards, and do the course survey online. Let me know if you encounter any problems.

### **Week 2: Aug 31-Sept 4**

#### **What is Gender, and How Does Technology Help Create It? What are the stakes and why should we care?**

*New York Times* interview with (the late) Ben

Barres: <http://www.nytimes.com/2006/07/18/science/18conv.html?pagewanted=all>

Kessler, "[The Medical Construction of Gender: Case management of Intersexed Infants](#)" (11 pp.)

Varma and Kapur, "[Decoding Femininity in Computer Science in India.](#)" *Communications of the ACM*

Dar-Nimrod & Heine, "[Exposure to Scientific Theories Affects Women's Math Performance.](#)" *Science*

View the short lecture posted on the [course site](#) after finishing these readings. Lectures will generally be posted on Thursdays or Fridays, but may be posted earlier some weeks. Discuss the question(s) posted about the readings on the [discussion board](#).

*Monday office hours this week*

### **Week 3: Sept 7-11 (Sept 7 LABOR DAY)**

#### **Do technologies have politics?**

Buolamwini, "Gender Shades," watch video at: <http://gendershades.org/> or

read: <https://www.businessinsider.com/biases-ethics-facial-recognition-ai-mit-joy-buolamwini-2019-1>

Crenshaw, "Demarginalizing the Intersection of Race and Sex"

<http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf>

View the short lecture posted on the [course site](#) after finishing these readings.

Discuss the question(s) posted about the readings on the [discussion board](#).

*Wednesday office hours this week*

#### **Week 4: Sept 14-18**

##### **Technological “advance”—progress for whom?**

[Excerpts](#) from Cooper Owens, *Medical Bondage: Race, Gender, and the Origins of American Gynecology*  
Excerpt from McMillan Cottom, *Thick*: <https://time.com/5494404/tressie-mcmillan-cottom-thick-pregnancy-competent/>

Assignment: The readings for this week focus on the advance of medical technology. In so doing, they show very clearly how technologies are enmeshed with humanistic concerns. Can you find an article about recent developments in medical technology that are hard to understand if we don't take race and gender into account? Post your article links with a short description on the [discussion board](#).

*Monday office hours this week*

#### **Week 5: Sept 21-25**

##### **Digital Redlining**

Sweeney, “[Discrimination in online ad delivery](#),” *Communications of the ACM* 56, no. 5 (2013): 44-54.

Listen to Prof. Ruha Benjamin interview on FAIR radio: <https://fair.org/home/black-communities-are-already-living-in-a-tech-dystopia/>

Watch Prof. Chris Gilliard lecture on digital redlining: <https://www.youtube.com/watch?v=MEPI7YctRqY>

Optional: Excerpts from Noble, [Algorithms of Oppression](#)

After listening to and viewing to the items above, think about the chain of historical causality for digital redlining, and the historical underpinnings of the issues that we have previously talked about in class. Try to see if you can find a recent news article that talks about a related issue. Feel free to start a thread on the discussion board to discuss your article.

*Wednesday office hours this week*

#### **Week 6: Sept 28-Oct 2**

##### **Applying what we've learned so far**

Using the readings and other course materials we've looked at so far, apply an intersectional lens to the the idea of technological progress. Write up to 500 words. Essays will be passed in via a blog post on the [Digital History Lab](#). (More details will be added in a post on the [Digital History Lab](#) closer to the date.)

There will also be a discussion board thread set up for you to discuss and to ask questions prior to passing in the essay.

Optional: “Mask for Mask” reading and video

*Monday office hours this week*

#### **Week 7: October 5-9**

##### **Categories that gender and technology need (or want)**

Drucker, “[Keying Desire](#),” *Journal of Sexuality Studies*

Ainsworth, “[Sex Redefined](#),” *Nature*

Optional: Butler, [Introduction](#) to *Bodies That Matter* (2011)

Both gender and technology need clear categories to function. How do each of the readings for this week give us insight into the importance of categories as being not just descriptive but *generative*? Discuss this on the [discussion board](#).

*Wednesday office hours this week*

#### **Week 8: October 13-16 (October 12: Fall Break)**

##### **Machine enforced categories—then and now**

Hicks, “[Hacking the Cistem](#)” *IEEE Annals of the History of Computing*

Optional: Keyes, “[The Misgendering Machines: Trans/HCI Implications of Automatic Gender Recognition](#)”

Optional Articles on the Google Walkout, Dragonfly, Maven, ethics panel debacle, and employer retaliation.

If we think about this week's readings in relation to last week's, what kind of larger insights might we glean?

Discuss these and other questions on the [discussion board](#).

*No office hours this week*

#### **Week 9: Oct 19-23**

##### **Hidden histories of computing and butterfly effects**

[Excerpts](#) from Shetterly, *Hidden Figures*

Hicks, “How to Kill Your Tech Industry” <https://logicmag.io/failure/how-to-kill-your-tech-industry/>

Optional: [Excerpts](#) from Shirley, *Let IT Go*, pp. 1-10, 39-55, 60-65, 66-120, 147-153

Look at the course site for guidance on how to use primary sources. (More links will be posted here.)

*Wednesday office hours this week*

**Week 10: Oct 26-30**

**What we can find in the past that helps us understand the present and future**

This week you will do an assignment using primary sources (the details will be given closer to the date).  
*Monday and Wednesday office hours this week*

**Week 11: Nov 2-6**

**How Far Does Gender Still Get Into Tech?**

Discussion of Final Paper (in lieu of final exam). Due December 9<sup>th</sup>.

Kate Losse, "[The Male Gazed](#)" in *Model View Culture*

Thomas, "[If you think women in tech is just a pipeline problem, you haven't been paying attention](#)"

Blog assignment and optional questions on the [discussion board](#).

*Wednesday office hours this week*

**Week 12: Nov 9-13**

**Skill stereotypes and labor power**

Nakamura on Navajo women in hardware manufacturing at Fairchild Semiconductor:

<http://www.computerhistory.org/atcm/indigenous-circuits/>

<https://lnakamur.files.wordpress.com/2011/01/indigenous-circuits-nakamura-aq.pdf>

Conger & Schieber, "Employee Activism is Alive in

Tech," <https://www.nytimes.com/2019/07/08/technology/tech-companies-union-organizing.html>

Optional: Excerpt from *Programmed Inequality* (short excerpt re: VAT computer strike)

At first it might seem like the required reading for this week don't have as much to do with gender, but given the history you have already learned in this class, how might this week's topics be related to things we have already discussed?

*Monday office hours this week*

**Week 13: Nov 16-21**

**Where are we now, and where do we go from here?**

Readings: Class choice/class provided (more details will be given closer to the date)

*Wednesday office hours this week*

**Week 14: Nov 23-27**

**NO CLASS—THANKSGIVING BREAK**

*No office hours this week*

**Week 15: Nov 30-Dec 4**

**Conclusion (more details TBA)**

*Monday and Wednesday office hours this week*

**Final Project Due on December 9<sup>th</sup> by 10pm**