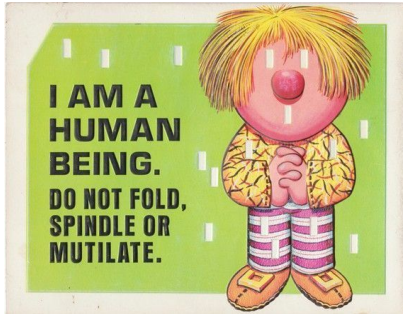




COLLEGE OF
INFORMATION
STUDIES



INST 466: Technology, Culture, and Society

Instructor: Dr. Daniel Greene

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Office Hours: Schedule at
<https://calbird.com/daniel-greene/students>

Office Hours: Tu/Th 9 - 10:30 AM

Class time & location: Tuesdays and Thursdays: Sec. 0101 11 AM -12:15 PM, SQH 1101;
Sec. 0102 2 PM - 3:15 PM, IRB 1116

Who to contact about what: Always check the syllabus first. Answers are usually there. Questions that can't be answered in a sentence or two probably need a face-to-face meeting instead of an email. We're both happy to work with general "I'm confused about X" questions, but try to give the procedural "Where is Y?" questions to Kaley and the higher-level "I need to make a plan for unexpected problem Z" questions to Dr. Greene.

"It is not clear who makes and who is made in the relation between human and machine."

- Donna Haraway, "A Cyborg Manifesto" (1985)

"It was an insult to our skill and intelligence that we could produce a Concorde but not enough paraffin heaters for all those old-age pensioners who die in the cold."

- Mike Cooley, former Lucas Aerospace engineer (2018)

CATALOG DESCRIPTION

Individual, cultural, and societal outcomes associated with the development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

COURSE DESCRIPTION

It is not entirely clear who or what counts as 'tech' anymore. Does a teacher driving for Uber at night to make rent work in 'tech'? Marketers tweaking their SEO strategy? A police officer cleaning a face recognition database? The lines have blurred as the sector's power has increased. But with debates over filter bubbles, STEM gaps, and body cameras dominating headlines, it is more clear than ever that decisions made in 'tech' reverberate throughout our political, economic, and social lives. This course gives students the practical and conceptual tools necessary to navigate this shifting terrain. As an upper-level seminar in the Information Science major, and a Diversity-Cultural Competence credit in Maryland's General Education program, it is designed to help future members of the tech sector, broadly construed, understand the different social conflicts engulfing 'tech' and the lived experiences of people on different sides of these conflicts. 'Tech' touches everyone, but everyone does not have an equal say in how 'tech' works or an equal share in 'tech's' consequences. We will explore the integral role technology plays in defining how race, gender, class, and ability works, both historically and in the present. We will draw on a mix of academic research, news media, policy briefs, and speculative fiction.

Throughout the semester, students will read and practice skills from information studies, history, sociology, women's, gender, and sexuality studies, critical ethnic studies, law and policy, design, and more. We will explore how political and social values are built into different technologies and contested by users and regulators from three different angles: Classification (e.g., the consequence of 'real name' policies for trans people), Design (e.g., how social apps can become 'stalkerware'), and Politics (e.g., how and whether to regulate or ban face recognition systems). Students will produce original research that explores these issues in pre-digital technologies and in future technologies that have not yet been built. Intermittent quizzes will ensure students stay on top of our readings, while informal current events presentations will extend our class discussions beyond what's on the syllabus.

STUDENT LEARNING OUTCOMES

At the conclusion of this class, you should be able to:

- Explain how cultural beliefs influence technology use at the individual, organizational, or societal levels.

- Reflect in depth about critical similarities, differences, and intersections between their own and others' cultures or sub-cultures so as to demonstrate a deepening or transformation of original perspectives.
- Articulate how current power structures create unequal opportunities and access for different subsets of society
- Recognize and describe how your specific life circumstances have influenced your experiences with technology.
- Identify the challenges faced by minority groups when engaging with technology.
- Effectively use skills to negotiate cross-cultural situations or conflicts in interactions inside or outside the classroom.

ASSIGNMENTS

Each assignment will have a detailed rubric. Group assignments require a topic, submission outline and a meeting with the instructor ahead of their final due date. We will also hold informal brainstorming discussions in class. Assignments add up to 1000 points. All assignments are due on Mondays at midnight unless otherwise stated in the rubric

Group Project 1: Historical Classification Systems: 200 points (50 points awarded for submitting a topic brief, 50 points for submitting an outline and meeting with the instructor or TA, 100 points for the final report)

Much of the current tech boom is built around semi-automated systems for statistical inference, recognizing patterns among billions of different points of user data. We can learn a lot about how these systems work by studying their ancestors. Students will pick a system for classifying people whose design predates the year 1996. In groups, they'll write a 750-word research brief describing how it was built, and with what values, goals, and consequences. Projects might study the IQ test, the Nazi government's Census built by IBM, or China's *hukou* household registration system, for example. Students will need to use primary sources (e.g., historical newspapers, trade literature, instruction manuals) to provide evidence. This is a group project whose grade functions as our midterm. Alongside the report, students will submit a peer assessment.

Group Project 2: Future Tech: 250 points (50 points awarded for submitting a topic brief, 50 points for submitting an outline and meeting with the instructor or TA, 100 points for the final report, 50 points for a five-minute in-class 'lightning talk')

Designing laws, professional standards, and curricula that ensure democratic accountability and positive social outcomes for new technologies is very, very hard. So, inspired by the speculative fiction we will watch and read throughout the semester, we will practice this skill on technologies that do not yet exist. Student groups will pitch a technology that doesn't yet exist but could soon, explain its potential risks, design either a new law or a new set of professional ethical standards to regulate it (~750 words), and pitch the whole package to their peers in class (a five-minute

'lightning talk'). Your invention is up to you but some ideas might include: Automated police drones, downloadable memories, or toll roads priced by credit score. This is a group project whose grade functions as our final exam. Alongside the report, students will submit a peer assessment.

Reading Quizzes: 200 points

There will be 11 pop quizzes delivered online. The lowest-scoring quiz will be dropped at semester's end. Quizzes are designed to be easy reading checks: If you've done the assigned readings, you'll ace the quiz. You will have 48--opening at 10 AM one day and closing at 10 AM two days later-- to take a quiz, but once you start it you will only have 15 minutes to complete it.

Current Events Presentation: 100 points

Students will be assigned a class session for which they will prepare a 500-word essay relating the day's reading(s) to a story from the news. Students will also prepare a brief, informal presentation summarizing their essay, along with discussion questions meant to guide the day's session. This assignment ensures that we talk about more than just what's on the syllabus, and that there's at least two people every day who are experts on what's on the syllabus.

Participation: 200 points

Students are not graded on attendance but on their active participation in class. Every class will include some sort of written warm-up exercise that sets the stage for later discussions activities. Participating in both is essential to receive full credit (8 points) for that day. *Four 'freebie' days are built into this grading scheme, so students should not feel obligated to request an excused absence for any given day just to recover that day's participation points.*

Film Critique: 50 points

One of the core ideas in this class is that technologies can have certain values built into them in the design problem, and can enforce certain values in their operation. We will demo this idea early on, watching a series of sci-fi shorts about surveillance. Students will write a brief (~500 words) essay focusing on a single piece of technology in a single film, describing what values got built into it, by whom, with what consequences.

GRADE EVALUATION

Missed Deadlines: If you think you will not be able to meet an assignment deadline for whatever reason, contact Dr. Greene before the due date to explain why you will need to submit the assignment late and what your plan is. These will be evaluated on a case-by-case basis. Per the above, there are four 'freebie' days, and a spare quiz, so there is no need to worry about missing a normal class date. If students miss an extended period of class or a date on

which an in-class major grading event occurs (e.g., your final presentations, your current events presentation), they should schedule an office hours appointment to discuss it. In this event, students should also review the UMD Health Center's policy on medical excuse notes and be prepared to provide one.

Late Assignments Policy: Unless prior permission has been granted, no late work is accepted. This policy is in place to ensure every student has their work returned to them in a timely fashion. Please prepare in advance so that you will not encounter technical difficulties that may prevent submission of a given assignment. If you have a conflict with the due date, assignments can always be submitted early. Generally speaking, illnesses are not an excuse for late assignments because you will receive the assignments at least two weeks before they are due.

Grading: The primary purpose of a grade is to assess how well you know the concepts, techniques, and tools that are the focus of the class, providing you and the instructor with a signal that indicates whether a change is needed or you can keep doing what you're doing. Each assignment will be graded based on a rubric available to you and will be based on mastery of concepts. If you believe that a grade you received does not accurately reflect your knowledge and ability (either due to a grading error or a trivial misunderstanding on your part), you may raise the issue within one week of receiving the grade by speaking with Dr. Greene in office hours. After considering the issue, Dr. Greene will adjust your grade (either up or down) to best reflect your knowledge of the material.

Final Grades: Final grades will be submitted 48-72 hours after the last day of class. Because grades are issued in points, rather than percentages, there is no rounding up or down. Because grades are calculable throughout the semester, I will not respond to email requests for a grade bump at the end of the semester.

The cutoffs are as follows:

A+ 970-1000 points	A 930-969	A- 900-929
B+ 870-899	B 830-869	B- 800-829
C+ 770-799	C 730-769	C- 700-729
D+ 670-699	D 630-669	D- 600-629
F less than 600 points		

In this class, an "A" denotes full achievement of the goals of the class, a "B" denotes good progress towards the learning objectives, and a "C" indicates that you were able to comprehend the concepts involved but were unable to effectively apply that knowledge. Since the grading is

based on a point-based system, an F is not the same thing as a zero. Failing work still earns some points. You are always better off to turn something in and get feedback on what you were able to complete. The point-based system also means that you can keep track of your progress and your current grade. You are encouraged to continuously monitor your own performance.

POLICY ON ACADEMIC MISCONDUCT

Cases of academic misconduct will be referred to the Office of Student Conduct irrespective of scope and circumstances, as required by UMD's rules and regulations. Instructors do not have a choice of following other courses of actions in handling these cases. There are severe consequences of academic misconduct, some of which are permanent and reflected on the student's transcript. For details about procedures governing such referrals and possible consequences for the student please visit <http://osc.umd.edu/OSC/Default.aspx>

It is very important that you complete your own assignments, and do not share any files or other work. The best course of action to take when a student is having problems with an assignment question is to contact the instructor or teaching assistant. They will be happy to work with students while they work on the assignments.

University of Maryland Code of Academic Integrity

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://shc.umd.edu/SHC/Default.aspx>

Students have a responsibility to familiarize themselves with violations of the Code of Academic Integrity. Among these include:

1. *Cheating* "Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise."
2. *Fabrication* "Intentional and unauthorized falsification or invention of any information or citation in an academic exercise."
3. *Facilitating Academic Dishonesty* "Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty."
4. *Plagiarism* "Intentionally or knowingly representing the words or ideas of another as one's own in an academic exercise."

UNIVERSITY RESOURCES FOR STUDENTS IN NEED

Students with disabilities should inform Dr. Greene of their needs at the beginning of the semester. Please also contact the Disability Support Services (301-314-7682) or

<http://www.counseling.umd.edu/DSS/>. DSS will make arrangements to determine and implement appropriate academic accommodations.

Students who want help improving their writing are encouraged to visit UMD's Writing Center, where trained coaches will help you plan out assignments or edit drafts:

<http://www.english.umd.edu/academics/writingcenter>

Students seeking more general support on specific skills necessary to be successful in college, or just looking for general help on how to manage their workload, are encouraged to visit Learning Assistance Services: <https://lasonline.umd.edu/>

Students encountering psychological problems that hamper their course work are referred to the Counseling Center (301-314-7651 or <http://www.counseling.umd.edu/> for expert help. For more information on UMD's Student Services, see <http://www.studentaffairs.umd.edu/student-life>

If you or someone you know has trouble procuring food please visit the campus food pantry:

<http://campuspantry.umd.edu/>

If you or someone you know feels unsafe, the university has resources (see list below). Please note that both Dr. Greene and the TA are mandatory reporters under the UMD sexual misconduct policy, meaning that if we hear about sexual misconduct we are required by law to report it to the University for further investigation. Students impacted by sexual assault should contact OCRSM (below) for administrative support and CARE to Stop Violence for counseling support: <http://health.umd.edu/care>

Read more about hate-based crimes here:

https://ocrsm.umd.edu/files/Hate_Bias_FAQs_final.pdf

Counseling Center	301-314-7651 / www.counseling.umd.edu
University Health Center and Mental Health Services	301-314-8180 / www.health.umd.edu
University of Maryland Chaplains	thestamp.umd.edu/memorial_chaplains
Office of Civil Rights and Sexual Misconduct	301-405-1142 / www.ocrsm.umd.edu

DR. GREENE'S TIPS FOR A SUCCESSFUL SEMESTER

1. Come to class prepared. This includes completing any assignments and readings before class and bringing copies of the readings with you, as well as materials with which you

can take notes. Laptops are permitted in class but know well that the effects of laptops on your and your neighbor's learning has been [shown to be negative](#).

2. Struggling with classes in general? Talk to me, friends, family, and/or the Counseling Center. I want to help you do well.
3. Engage in class discussions. Ask questions. Share your opinions. Be open to others' viewpoints, even if they're different than your own.
4. Have a question outside of class? After checking the syllabus and ELMS, feel free to contact Dr. Greene or the TA via email. Make sure to include the course number (INST466) in the subject line to ensure they see it. They will respond within 48 hours. Do not email me multiple times if you have not received a response and less than 48 hours have passed. Send your emails to the appropriate party: Small paperwork questions to the TA, bigger conceptual or procedural questions Dr. Greene. Unsure what a professional email looks like? That's OK! Take a look at this guide: <https://medium.com/@lportwoodstacer/how-to-email-your-professor-without-being-annoying-af-cf64ae0e4087>
5. Visit us during office hours to talk about course content or anything else on your mind. In general, if you think your question or the answer you need for it is longer than a sentence or two, it's better to talk in person than over email.
6. Know your rights as an undergraduate student at UMD: University of Maryland Policies for Undergraduate Students <https://www.ugst.umd.edu/courserelatedpolicies.html>
7. Have fun! This class is designed to take on familiar problems in surprising ways. Embrace the weird and you'll do great.

CLASS SCHEDULE

Week 1: Introductions

Tuesday August 27

- Get to know each other

Thursday August 29

- McFadden, S. (2014). [Teaching the camera to see my skin](#). *Buzzfeed News*.
- Schüll, N.D. (2012). [The touch-point collective: Crowd-contouring on the casino floor](#). *Limn*

Week 2: Values in Design

Tuesday September 3

- Winner, L. (1980). [Do artifacts have politics?](#). *Daedalus*, 121-136.
- Edwards, P. [How to read a book](#).

Thursday September 5, 2019

- Movie Day with the [Screening Surveillance](#) short-film series.

Unit 1: Classification

Week 3: Sorting Things Out

Monday September 9

- **Film Critique due**

Tuesday September 10

- Raw Data Season 4, Ep. 1 and 2 "[Power from the People](#)"

Thursday September 12

- Bowker, G. & Starr, S.L (1999) "The Case of Race Classification and Reclassification Under Apartheid." In *Sorting things out: Classification and its consequences*, pp. 195-225.

Week 4: Naming Gender

Monday September 16

- **Group Project 1 Topic Due**

Tuesday September 17

- Hicks, M. (2019). Hacking the Cis-tem: Transgender Citizens and the Early Digital State. *IEEE Annals of the History of Computing* 44(1): 20-33.

Thursday, September 19

- Cat, Z. (2015) [My name is only real enough to work at Facebook, not to use on the site.](#)
- White, E. (2019) "[Trans-Inclusive Design](#)"

Week 5: Counting Race

Monday September 23

- **Group Project 1 Outline Due**

Tuesday September 24

- Smith (2018) "[Former Baltimore Police Detective Criticizes the Department's Gang Database.](#)" *The Appeal*.
- Harvey (2016) "[The list that can take your life.](#)" *Huffington Post*.

Thursday September 26

- Browne, S. (2012). Everybody's got a little light under the sun: Black luminosity and the visual culture of surveillance. *Cultural Studies*, 26(4), 542-564.

Week 6: Who Counts as 'Tech'?

Tuesday October 1

- Light, J. S. (1999). [When computers were women.](#) *Technology and culture*, 40(3), 455-483.

Thursday October 3

- Silbey, S. (2016). [Why do so many women who study engineering leave the field?](#) *Harvard Business Review*.
- Gregg, M. (2015). "[The deficiencies of tech's pipeline metaphor.](#)" *The Atlantic*

Unit 2: Design

Week 7: Accessible Design

Monday October 7

- **Group Project 1 Due**

Tuesday October 8

- Hamraie, A. (2018). "[A smart city is an accessible city](#)" *The Atlantic*.
- Take the [SideWalk tutorial](#)

Thursday October 10

- Alper, M. (2017). "Talking iPads and the Partial Promise of Voice: What is Voice?" in *Giving Voice: Mobile Communication, Disability, and Inequality*, p. 35-64.

Week 8: Global Design

Tuesday, October 15, 2019

- Chan, J., Pun, N., & Selden, M. (2013). The politics of global production: Apple, Foxconn and China's new working class. *New Technology, Work and Employment*, 28(2), 100-115.

Thursday October 17

- Crawford, K. and Joler, V. (2018). [Anatomy of an AI System](#)

Week 9: Designing For and Against Harassment

Tuesday October 22

- pluspodcast episode 3 ["Domestic Surveillance"](#)
- Valentino-Devries, J. (2018, May 19). ["How a stalker can be hiding in your pocket."](#) *New York Times*

Thursday October 24

- Blackwell, L., Dimond, J., Schoenebeck, S., & Lampe, C. (2017). [Classification and its consequences for online harassment: Design insights from heartmob](#). *Proceedings of the ACM on Human-Computer Interaction*, 1(CSCW), 24.

Week 9: Design and Responsibility

Monday October 28

- **Group Project 2 Topic Due**

Tuesday October 29

- Steceklow, S. (2018) ["Why Facebook is losing the war on hate speech in Myanmar"](#) *Reuters*
- Solon, O. (2018) [Facebook struggling to end hate speech in Myanmar, investigation finds](#). *The Guardian*
- Hopkins, N. (2017). [Revealed: Facebook's internal rulebook on sex, terrorism, and violence](#). *The Guardian*

Thursday October 31

- Burrington, I. (2017) ["Could Facebook be tried for human rights abuses?"](#) *The Atlantic*
- [Facebook Community Standards](#)
- [Facebook Terms of Service](#)

Unit 3: Politics

Week 10: Ethics and Regulation

Tuesday November 5

- Garvie, C. and Moy, L.M. (2019). "[America under watch: Face surveillance in the United States](#)" *Georgetown Law Center on Privacy and Technology*
- Garvie, C. (2019). [Garbage in, garbage out: Face recognition of flawed data](#) *Georgetown Law Center on Privacy and Technology*

Thursday, November 7, 2019

- Keyes, O. and Huston, J. (2018). "[A Mulching Proposal: Analysing and Improving an Algorithmic System for Turning the Elderly into High-Nutrient Slurry](#)". 2019 CHI Conference on Human Factors in Computing Systems.

Week 11: Organizing and Repression

Monday November 11

- **Project 2 Outline Due**

Tuesday November 12

- Tufecki, Z. (2015). "[How the Internet has made social change easy to organize, hard to win.](#)" TED Talk
- Summary, Introduction, Conclusion, in Freelon, D., McIlwain, C.D., and Clark, M.D. (2016). "[Beyond the hashtags: #Ferguson, #Blacklivesmatter, and the online struggle for offline Justice.](#)"

Thursday November 14

- Buckley, C., Mozur, P., and Ramzy, A. (2019) "[How China turned a city into a prison.](#)" *The New York Times*
- Buckley, C. and Mozur, P. (2019). "[How China Uses High-Tech Surveillance to Subdue Minorities.](#)" *The New York Times*
- Maly, T. (2013). "[Anti-drone camouflage: What to wear under total surveillance.](#)" *Wired*
- American Civil Liberties Union (2016) "[Community Control Over Police Surveillance: Technology 101](#)"

Week 12: Will Tech Build It?

Tuesday November 19

- Tech Workers Coalition (2018) "Tech Won't Build It Zine"
- Tarnoff, B. and "Kim" (2018). "[Tech workers against the Pentagon.](#)" *Jacobin Magazine*
- Irani, L (2018). "[A cloud is not just a cloud.](#)" *Difference Engines*

Thursday November 21

- Lucas Aerospace Combine Shop Steward Committee (1976). Corporate plan: A contingency strategy as a positive alternative to recession and redundancies.
- Open University (1978). "[The story of the Lucas Aerospace shop stewards alternative corporate plan](#)"

Week 13

Monday November 25

- **Group Project 2's Written Deliverable Due**

Tuesday November 26

- Class cancelled for Thanksgiving holiday

Week 14: Lightning Talks

- Our last two class sessions (Tuesday December 3 and Thursday December 5). will be devoted to student groups' 'lightning talks' presenting their fictional technology, its risks, and how they'll stop them. Participation is assessed on these dates via student feedback on peers' presentations.