

HDCC 106: The Internet of Evil



Trevor Paglen's *Vampire (Corpus: Monsters of Capitalism)*, "Adversarially Evolved Hallucination" (2017).

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Office hours: Scheduled via
<https://calbird.com/daniel-greene/students>

Class time and location: M-W 2 – 3:15,
0111 Prince Frederick Hall

"Don't be evil. We believe strongly that in the long term, we will be better served--as shareholders and in all other ways--by a company that does good things for the world even if we forgo some short term gains. This is an important aspect of our culture and is broadly shared within the company."

- Google Inc. investor prospectus (2004)

"We believe that Google should not be in the business of war....We cannot outsource the moral responsibility of our technologies to third parties."

- Employee letter to Google CEO Sundar Pichai (2018)

CATALOG DESCRIPTION

Examining the antagonists trying to exploit, break, trick, and brick modern information systems: trolls, spammers, viruses, hackers, dictators, and more. Exploring the technical and historical background of internet evildoers, how the meaning of 'evil' varies between systems and cultures, and how complex networks and the techniques to support them co-evolve with their evil adversaries. Students develop practical and theoretical skills in threat assessment, design methods, and social research.

COURSE DESCRIPTION

Over the last few years, the shine of Web 2.0 has worn off. Where Facebook, for example, was once celebrated as a global community built by entrepreneurial idealists, it is now feared as a

fake news engine and a coordination mechanism for extrajudicial violence, overseen by heartless libertarians. We've learned that new connections implied new vulnerabilities, individual and systemic. This course gives students the practical and conceptual tools to navigate this shifting terrain. It is a design course, where we will take an adversarial approach to the core infrastructure of the information economy--learning to both break it and save it. It is also a philosophy course, where we will ask what 'evil' means and whether and how institutions or technologies can be 'evil.' And it is a science, technology, and society course, where we explore how the meaning of 'evil' evolves within and between different communities and the technologies on which they run.

Throughout the semester, students will read and practice skills from each of these fields--and more--as they develop a 'security mindset'. We will explore the relationship between evil and information technology at successively larger scales, beginning with evil designs (e.g., spamming systems), moving on to evil organizing (e.g., coordinated harassment campaigns), and ending with a focus on evil institutions (e.g., tech workers' campaigns against their own companies). Students will study and respond to internet evil by researching an historical evil design, demoing their own technologically-delivered evil, and, finally, 'pitching' to prospective clients on how to protect themselves from that same evil. 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:

- Demonstrate a 'security mindset' in your approach to different sociotechnical problems
- Demonstrate critical thinking in evaluating the relationship between human values, organizational structures, and technological designs.
- Take an adversarial approach to design: On the one hand, identifying existing technical and social vulnerabilities and creating new ones, on the other hand, explaining to others how to secure those vulnerabilities.
- Explain how and why the nature of 'evil' changes based on the community and the infrastructure involved, and who benefits or suffers from the designation.
- Conduct archival research that identifies historical primary sources relevant to contemporary debates.

REQUIRED CLASS MATERIALS

There is no textbook for this course. Course readings are located on ELMS and are a mix of academic articles, journalism, history, fiction, podcasts and more. Course readings are subject to change, so make sure you check ELMS for any updates before you dig into a given week's readings.

CLASS STRUCTURE

This is a small-group Honors seminar focused on in-depth discussion of challenging ideas and hands-on projects that put those ideas into practice. Each individual class session will be a mix

of the two, though the balance will vary. There are four units—Evil Foundations, Evil Designs, Evil Organizing, and Evil Institutions—that tie together readings, activities, and assessments. I have created a number of activities to engage students in discussion about that week's topic, so you should complete the assigned readings/videos/audio **before** class (see syllabus and ELMS for reading assignments). The syllabus is a living document and changes made be made to meet certain class needs or respond to current events relevant to class. Changes will be announced ahead of time. The most current syllabus is always the one on ELMS.

Because this is a small group Honors seminar, laptops are permitted in class but the instructor reserves the right to change that principle at any time. In general, [the science is pretty clear](#): Not only do laptops impede individual learning, but there's a second-hand smoke effect where they distract your neighbors as well and hurt their opportunity to learn. So you're taking your chances if you're leaving the laptop open all class long. Whole group discussion goes better when people can actively attend to the other people in the room. Other small-group activities may require certain technologies, and the instructor will make that clear in advance.

In general, be deliberate in your use of technology, be aware of the people around you, and avoid doing things that will disturb them or otherwise prevent them from fully engaging with the content. Put your phones on silent before the start of class. If you need to make/take a phone call, leave the classroom before doing so. When engaging in a class discussion, be respectful of others in the room. Any student who cannot do this will be asked to leave the classroom for the remainder of that class.

Statement on Diversity, Respect, and Classroom Language

This is a class about evil. Because of that it will touch on many 'hot-button' subjects such as race and racism, hate-speech, sexuality and sexual harassment, and genocide. The class will encourage personal reflection to link those issues to contemporary debates and personal experiences. In the discussion of politically complex and charged issues, it is often necessary to explore terminology and concepts that, on occasion, may make us uncomfortable. Please understand that it is necessary to engage in these discussions in order to come to a critical and comprehensive understanding of our topic so that, subsequently, we can learn how to deconstruct those issues and try to solve them. This means that online and in-class spaces are safe ones, where the expression of personal identity is encouraged and respected. Students should afford each other the same respect they desire in turn, and this includes attending to classmates in discussion instead of Facebook. Insults and disrespectful language will not be tolerated. Uncomfortable topics may be broached, but always in relation to course themes and objectives and never for shock value. If you become particularly distressed about any discussion, please contact the instructor immediately. The instructor will give the class a heads up when any particularly graphic topics are going to be brought into discussion.

EMAIL POLICY

Email is professional communication. People judge you—rightly or wrongly—based on your email conduct. Any correspondence with the instructor in this class should include a subject line with the course number, a greeting, the content of the message, and a sign-off—that'll ensure

you get the response you need. Unfortunately, almost nobody takes a How to Email Well class, so we learn these things as we go. Want to learn how to email well? Read this short blog post: [*How to Email Your Professor \(without being annoying AF\)*](#).

Dr. Greene receives several hundred work emails every day, and will usually respond to student emails within 48 hours. If you haven't received a response after that, please send it again. Before emailing, 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. Office hours are higher bandwidth. Use them.

ASSIGNMENTS

Each assignment will have a detailed rubric and instruction sheet to accompany it. Larger assignments require an outline and a meeting with the instructor ahead of their delivery date, we will also hold informal brainstorming discussions in class. Larger projects can be completed in a pair, but the deliverables will be somewhat longer--tell the instructor before the outline stage if you're thinking of this. Assignments add up to 1000 points.

Historical Evil: 150 points (50 points awarded for submitting an outline and scheduling a meeting with the instructor to discuss it)

Students will pick an historical example of an evil design, broadly construed, and write a 750-word research brief describing its designers, goals, targets, methods, and outcomes. 'Evil design' here is broadly construed to include everything from confidence schemes to ransomware, pre-Web spam election fraud. The report could review a type of fraud, like the Spanish Prisoner scam, or a specific incident like the Creeper virus. Students will need to use contemporary sources (e.g., historical newspapers, trade literature) to provide evidence. The evildoing must take place prior to 1995 (an arbitrary birth-year for the Web).

Original Evil: 150 points (50 points awarded for submitting an outline and scheduling a meeting with the instructor to discuss it)

Students will design and demonstrate a new evil, broadly construed, with clearly identified goals, targets, methods, and desired outcomes. 'Evil' here is broadly construed to include everything from confidence schemes to ransomware. Students will write a short essay (~500 words) explaining their evil and will demonstrate it by whatever means they choose: A deepfake video, specific phishing emails, the map of a planned burglary of finals' Scantrons etc.

Hero Pitch: 150 points (50 points awarded for submitting an outline and scheduling a meeting with the instructor to discuss it)

Now that you've planned some evil, you're ready to exploit it for fun and profit! In lieu of a final exam, students will identify a specific institutional client who they can advise about protecting themselves from the students' original evil design. Students will present this pitch as a formal 15-minute speech with visual aides--slides or other media--in the final three sessions of class.

Reading Quizzes: 150 points

There will be 11 online quizzes this semester choice. The lowest-scoring quiz will be dropped at semester's end. Each quiz will have around five multiple-choice questions. You will have a 48-hour window in which to complete the quiz, but only 15 minutes to take it once you open it. Any material up to and including that assigned on the due date of the quiz is fair game. Quizzes are designed to be easy: If you've done the reading, you'll ace the quiz.

Current Events Presentation: 100 points

Students will be assigned a day of class 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 an informal 5-minute presentation summarizing their essay, along with discussion questions meant to guide the day's session.

Participation: 250 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 of various formats. You'll get full credit if you show up, complete the warm-up, and participate in discussion. *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.*

Capstone Ideas Workshop [DCC Program Requirement]: 50 points (all-or-nothing)

You must attend one "Capstone Ideas" workshop this semester, organized by DCC staff. Dates for these workshops are on the DCC events calendar on the website, where you will sign up for this workshop. This workshop is designed to help you think through possible projects you can pursue next year in for your Capstone project. You are also required to attend some portion of the DCC Capstone Fair (held in the MPR on the last day of class: Tuesday, May 14 from 6-8pm). Students who are enrolled in courses that conflict with the entire duration of the Capstone Fair can be given accommodation for this part of the grade with prior approval of the professor. You must also log 5 Studio Hours in the Lab or Sound Studio by self reporting with a Lab manager. Students receive 50 points for completing all requirements.

GRADE EVALUATION

Missed Deadlines: If 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 any single class. If students miss an extended period of class, they should schedule an office hours

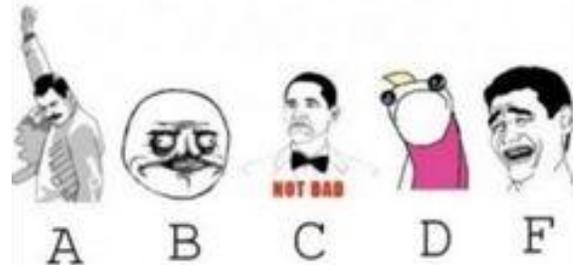
appointment to discuss it. In this event, students should also review the UMD Health Center's [policy on medical excuse notes](#).

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 provide an accurate assessment of how well you know the concepts, techniques, and tools that are the focus of the class. 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 either speaking with me in office hours. After considering the issue, I 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 and because copious extra credit opportunities are available, **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 pts.	C	730-769
A	930-969	C-	700-729
A-	900-929	D+	670-699
B+	870-899	D	630-669
B	830-869	D-	600-629
B-	800-829	F	less than 60
C+	770-799		



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 always know what your current grade is in the course. You are encouraged to 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 university rules and regulations. It is crucial to understand that the 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. The instructor 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 me 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 with you and me 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

Name	Phone	Website
University 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_chapel/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.
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 via email. Make sure to include the course number (HDCC106) in the subject line to ensure I see it. I will respond within 48 hours. Do **not** email me

multiple times if I have not responded and less than 48 hours have passed. After that time, please send me a reminder email.

5. Visit Dr. Greene during office hours to talk about course content or anything else on your mind. In general, if you think the answer to your question 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](#)
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

Unit 1: Evil Foundations

Week 1: Introductions

Monday January 28

Readings:

- None!

Activities

- Get to know each other

Wednesday January 30

Readings:

- Listen to the [“Snapchat Thief” episode](#) of the *Reply All* podcast. It's about an hour.
- [Schneier \(2008\). “The security mindset.”](#) *Schneier on Security*.

Week 2: Adversarial design

Monday February 4

Readings:

- Winner (1980). [“Do artifacts have politics?”](#)

Activities

- Magic Keys

Wednesday February 6

Readings:

- [Jeong \(2018\). *Internet of Garbage*](#). The Verge.

Activities

- Students will be broken into groups in the previous class and assigned sections of Jeong to summarize and present on for their peers

Unit 2: Evil Designs

Week 3: Original Sins Part 1

Monday February 11

Readings:

- Manaugh (2016). "Space invaders" in *A Burglar's Guide to the City*. [ELMS]

Activities

- Introduce the Historical Evil Project
- Case Prince Frederick Hall

Wednesday February 13

Readings:

- Excerpt from Maurer (2010) *The Big Con: The Story of the Confidence Man* [ELMS]

Activities

- Visit the library to learn about primary source archives

Week 4: Original Sins Part 2

Monday February 18

Readings:

- ["The concept of evil" \(2018\) from *The Stanford Encyclopedia of Philosophy*](#)

Activities

- Students will be broken up into groups to demo different portions of the encyclopedia entry with examples from the contemporary internet

Wednesday February 20

Readings:

- Excerpt from Brunton (2013) *Spam: The Shadow History of the Internet* [ELMS]

Activities

- Spam beauty contest and filter brainstorming

Outlines and meeting requests for Historical Evil Project due by midnight Thursday February 21

Week 5: Hauntings

Monday February 25

Readings:

- Excerpt from Schneier (2018). [Click here to kill everybody: Security and survival in a hyper-connected world](#) [ELMS]
- [Maughan \(2015\). "Be good for goodness' sake." Vice: Motherboard](#)

Activities:

- Students will pitch their historical evil for the class in a minute or two
- Students will be broken up into groups and assigned an IoT device (fridge, doorbell, Alexa, etc.) for which they have to come up with a story about it going horribly wrong, with some visual accompaniment. They'll meet at the end of class today and then present Wednesday.

Wednesday February 27

Readings:

- [Brewster \(2014\). "Internet of Things: The ghosts that haunt the machines" BBC Future](#)
- [Fox, Silver, & Rosner \(2018\). "Beyond the Prototype: Maintenance, Collective Responsibility, and Public IoT." Proceedings of the 2018 Designing Interactive Systems Conference](#)

Activities

- Groups will share IoT ghost stories. The rest of the class will figure out how to repair the system and banish the ghosts.

Week 6: Harassment

Monday March 4

Readings:

- [Freed et al \(2018\). "'A stalker's paradise': How intimate partner abusers exploit technology." Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems](#)
- [Losh \(2018\). "All Your Base are Belong to Us: Gamergate and Infrastructures of Online Violence." Cultural Anthropology](#)

Activities

- Workshopping time for Historical Evil Projects

Wednesday March 6

Readings:

- [Douglas \(2016\). "Doxing: A conceptual analysis." Ethics and Information Technology](#)

Activities

- Workshopping time for Historical Evil Projects

Historical Evil Projects due by midnight Thursday March 7

Unit 3: Evil Organizing

Week 7: Hate

Monday March 11

Readings:

- Excerpt from Daniels (2009). *Cyber Racism: White Supremacy Online and the New Attack on Civil Rights*. [ELMS]
- [boyd \(2017\). "Did media literacy backfire?" Datapoints](#)

Wednesday March 13

Readings:

- Excerpt from Belew (2018). *Bring the War Home: The White Power Movement and Paramilitary America*. [ELMS]
- [Tufekci \(2018\). "YouTube: The Great Radicalizer." The New York Times](#)

Activities

- Introduce Original Evil assignment

Spring Break

Week 8: Trolls

Monday March 25

Readings:

- [Philips \(2018\). "The oxygen of amplification: Better practices for reporting on extremists, antagonists, and manipulators." Data & Society](#)

Activities

- Students will be broken into groups and assigned sections of Philips to summarize and present on for their peers

Wednesday March 27

Readings:

- ["When is a troll no longer a troll?" PBS Idea Channel \[Video\]](#)
- [Columbia \(2013\) "Commercial trolling: Social media and the corporate deformation of democracy." Uncomputing](#)

Outlines and meeting requests for Original Evil Project due by midnight Thursday March 28

Week 9: Moderation

Monday April 1

Readings:

- Excerpt from Gillespie (2018). *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media* [ELMS]
- [Chen \(2015\). "The laborers who keep dick pics and beheadings out of your facebook feed." *Wired*](#)

Activities

- Students will pitch their original evil to the class in a minute or two

Wednesday April 3

Readings:

- [Hopkins \(2017\). "Revealed: Facebook's internal rulebook on sex, terrorism and violence." *The Guardian*.](#)
- [Facebook Terms of Service](#)
- [Facebook Community Standards](#)

Activities

- Content moderation role play

Week 10: Surveillance

Monday April 8

Readings:

- [Patton et al \(2017\). "Stop and Frisk Online: Theorizing Everyday Racism in Digital Policing in the Use of Social Media for Identification of Criminal Conduct and Associations." *Social Media + Society*.](#)
- [Larry Smith \(2018\). "Former Baltimore Police Officer Unloads On The Department's Gang Database." *The Appeal*](#)

Activities

- Workshopping time for Original Evil Projects
- Prepare for surveillance map

Wednesday April 10

Readings:

- [Mann \(2013\). "Veilance and reciprocal transparency: Surveillance versus sousveillance, AR glass, lifelogging, and wearable computing." *2013 IEEE International Symposium on Technology and Society*](#)

Activities

- Surveillance Map

Original Evil Projects due by midnight Thursday April 11

Unit 4: Evil Institutions

Week 11: Evil Infrastructure

Monday April 15

Readings:

- Excerpt from Arendt (2006) *Eichmann in Jerusalem: A report on the banality of evil* [ELMS]

Activities

- Introduce Hero Pitch Project
- Discuss surveillance map

Wednesday April 17

Readings:

- [Black \(2001\). "The Nazi Party: IBM and 'Death's Calculator'"](#)
- [Burrington \(2017\). "Could Facebook be tried for human-rights abuses?" *The Atlantic*](#)

Activities

- Mock trial for Mark Zuckerberg's crimes against humanity

Week 12: Fake News

Monday April 22

Readings:

- [Marwick \(2017\). "Why do people share fake news? A sociotechnical model of media effects." *Georgetown Law and Technology Review*.](#)

Activities

- Fake-offs

Wednesday April 24

Readings:

- [Silverman \(2017\). "I helped popularize the term "fake news" and now I cringe every time I hear it." *Buzzfeed News*](#)
- [Turner \(2018\). "Machine politics: The rise of the internet and new age of authoritarianism" *Harper's*](#)

Activities

- Brainstorm Hero Pitches

Outlines and meeting requests for Hero Pitches due by midnight Thursday April 25

Week 13: Don't Be Evil

Monday April 29

Readings:

- [Lubar \(1992\). "Do not fold, spindle, or mutilate: A cultural history of the punch card." *Journal of American Culture*](#)
- [Irani \(2018\). "A cloud is not just a cloud." *Difference Engines*](#)

Activities

- Workshopping time for Hero Pitches

Wednesday May 1

Readings:

- [Tarnoff and "Kim" \(2018\). "Tech workers against the Pentagon." *Jacobin*](#)
- Assigned tech worker manifestos

Activities

- Students will be broken into groups and assigned a different open letter from a group of tech worker organizers to read, summarize, and present to the class.
- Workshopping time for Hero Pitches

Week 14-15: Final Presentations

Activities

- Class time on May 6, May 8, and May 13 are dedicated to student presentations and discussions of their Hero Pitches