Cultures of Computing
224 Miner Hall, Tuesdays and Thursdays 3:00–4:15 p.m.

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Course Description

Computers are suspended in webs of stories. You are likely familiar with some of them: The immateriality of information has made it possible for industries to grow around bits instead of atoms; Cyberspace has overcome the limits of physical distance; Hackers, working out of modest garages, have heroically reshaped the world and become new titans of industry; Enormous data sets have made it possible to produce objective facts about human behavior without relying on explanatory theory. We often hear about how technologies “impact” culture. In this course, we will examine how computing is affected by culture, and, in the process, we will come to question the idea that culture and technology are necessarily separate from each other.

To do this, we will explore alternative stories about computing—stories that highlight people, places, objects, and processes that the usual stories neglect. These range from Ghanaian email scammers to New Yorkers working in the first dot-com boom, from undersea cables running off the coast of Hawai’i to cybernetic musicians. We will learn to read and write these stories, practicing more expansive ways of paying attention to the cultural life of computers and situating computing in broader contexts. Whether you plan to work in computing or with computers, these skills will help you make sense of the techno-social world, consider the global context in which technologies function, and work toward more equitable arrangements of people and computers.

This course is writing intensive: in addition to a midterm and final paper, you will be responsible for regular writing exercises, reading responses, and for reading your peers’ work. For the midterm and final, we will be participating in the Tufts Writing Fellows Program: this means that you will turn in a rough draft of your paper and receive feedback on it from a writing fellow before turning in a revised final draft to me.
1. Hello World

Tuesday, September 6

No reading. Sign up with Slack and introduce yourself in the #general channel.

Thursday, September 8


2. Origins | Writing exercise 1 is due Monday

Tuesday, September 13


Thursday, September 15


3. Knowing

Tuesday, September 20


Thursday, September 22


4. **Women** | *Writing exercise 2 is due Monday*

Tuesday, September 27


Thursday, September 29


5. **Disconnection**

*This class will meet in the Slack #general channel*

Tuesday, October 4


Thursday, October 6


6. Connections | *Midterm paper topic proposal and writing exercise 3 are due Monday*

Tuesday, October 11


Thursday, October 13


7. Work

Tuesday, October 18


Thursday, October 20


8. Infrastructure | Midterm paper rough draft is due Monday

Tuesday, October 25


Thursday, October 27


9. Hackers | Writing exercise 4 is due Monday

Tuesday, November 1


Thursday, November 3


10. Divides  | Midterm paper final draft is due Monday

Tuesday, November 8

Election day, no class

Thursday, November 10  | Guest lecture: Daniel Greene, Microsoft Research


11. Problems  | Writing exercise 5 is due Monday

Tuesday, November 15


Thursday, November 17

Meet at Tisch Library for an orientation to the library’s digital collections.

12. Data (big)

Tuesday, November 22


Thursday, November 24

*Thanksgiving, no class*

13. **Data (small)** | *Final paper topic proposal is due on Monday*

Tuesday, November 29


Thursday, December 1

*Class is cancelled*

14. **Algorithms** | *Writing exercise 6 is due on Monday*

Tuesday, December 6


Thursday, December 8


Final paper rough drafts are due on December 12.
Final drafts are due on December 22.
Learning Objectives

This course has been designed to help you learn how:

1. To think expansively about computing and to become adept at locating facts and artifacts in broader contexts, including society and culture.

2. To become familiar with major topics in the social and cultural analysis of computation, preparing you for advanced courses in anthropology and science, technology, and society.

3. To develop critical reading and writing skills, including the ability to analyze popular and scholarly arguments and to make your own.

Your grade is divided as follows:

- 15% Micro-responses
- 25% Writing exercises
- 25% Midterm paper
- 25% Final paper
- 10% Engagement

There may be occasions to earn extra credit throughout the semester by attending events at Tufts or in the greater Boston area and writing a short report. These occasions, should they arise, will be announced in class.

Accessibility

If you need accommodation as a result of a documented disability, you should register with the Disability Services Office at the beginning of the semester. You can find out how to do so here: http://students.tufts.edu/student-accessibility-services.

Your success in this class is important to me. If there are any circumstances that may affect your performance, please let me know as soon as possible so that we can work together to adapt assignments to meet both your needs and the requirements of the course. These may be personal, health-related, family-related issues, or other concerns. The sooner I know about any issues, the earlier we can discuss possible adjustments or alternative arrangements as needed for assignments or classes. Any such discussion will remain confidential. Even if you do not have a documented disability, remember that other support services are available to all students. Your advising dean can also help you find the assistance you require: https://students.tufts.edu/academic-advice-and-support/academic-advising/meet-your-advising-team.
Slack

We will be conducting some of the class through Slack, a team communication tool (think chatrooms) that has become very popular in software companies over the past few years. We are using it not just as a way to communicate, but also as an opportunity to experience how it shapes communication. You can use Slack through a web browser, as a desktop application, or on your smartphone. Feel free to play around with it and to use it to talk with your classmates about whatever you like, provided you are respectful of each other and do not use it to distraction during class time. If you send each other direct messages or create private channels, I am not able to read those messages. If you want to contact me, you can do so via direct message; if you think your message is relevant to the class as a whole, you can post it in the #general channel and tag me, @nick. You may want to take a look at their new user guide: https://get.slack.help/hc/en-us/articles/218080037-Getting-started-for-new-users.

In general, we will be using Slack to support ongoing class discussion, but some of your assignments will also use it—more details on these are below. This is an experiment, and we may adjust how we use Slack over the term.

Teams

To facilitate smaller-scale discussion, I am dividing you into teams. (They’re named after movie robots: Chitti from Enthiran, Eve from Wall-E, Gort from The Day the Earth Stood Still, Johnny 5 from Short Circuit, and Maria from Metropolis.) Each team will have a dedicated channel in Slack for group discussion. You will get your team assignment in class. Team membership may be rearranged midway through the term.

Reading

A typical class day will have two chapter or article-length assigned readings. You are expected to read these before class. If you are new to classes in the social sciences or humanities, this may be daunting. Some of these readings will be involved in debates that you are not familiar with and take for granted kinds of knowledge you may not have, but do not fear. Reading is a skill and you will get better at it, and faster, over the course of the term. These chapters and articles are not all the same length, but don’t judge them by page count—you should expect to spend about the same amount of time reading each week. Stick with the reading, look things up online, share questions and answers on Slack or in class, and we will get through it all together.

Many of the readings are journal articles available through the library. You should download these yourself—I will not provide copies of them. This is part of your training in how to do research, and download statistics help the librarians justify their
subscriptions. If you do not know how to do this, we will go over it in class. I will provide copies of readings not available digitally through the library. If you’re having trouble accessing something, send me an email in advance and I will help you. Failure to acquire the reading is not an acceptable excuse for not doing it.

Micro-responses

You will be responsible for short micro-responses to each reading. These are just three sentences that describe a key argument or concept, highlight a moment of confusion or disagreement, and raise a question. They are intended to be a lightweight way to help you to engage with the reading, so do not worry too much about them. They will just be graded by whether or not you completed them.

24 hours before class, our class bot @howdy will ask you for those six sentences via DM; when he has them all (or by 9 am, which is when they’re due), he will post the aggregated answers to your team channel. Please try to take a look at your teammates’ responses before class. These cannot be turned in late, but if you have to miss a class meeting and arrange to make it up with me, you can make these up as well. Micro-responses will start in week two.

Writing Exercises

This class has been designed to let you practice thinking differently about computing. To that end, you will have short (~500 word), biweekly writing assignments tied to course topics. Often, these will involve experimentation with different kinds of storytelling. If you are familiar with classes in the hard sciences, think of these exercises as analogous to problem sets: they are an opportunity for you to practice and demonstrate what you’ve learned from the reading and class discussion. I will provide more detailed guidelines for the exercises, including specific prompts, in class. You should turn these in as posts on Slack, in your team channels. (Click the + sign next to the text box and select “Create a post.” You may want to draft your exercises in another program and copy them into Slack, as the Slack post editor does not keep track of word count.)

To encourage you to experiment, exercises will be graded primarily for evidence of effort and thoughtfulness in execution, not for the “success” or polish of the final product. They will be scored on a three-point scale (✓+/✓/✓-), and at the end of the term I will convert those scores into percentages (100%/85%/70%). If you miss an assignment or fail to meet the basic criteria, you will get a 0. Note that this is a large percentage drop from ✓-, so it is in your best interest to turn in something. (See the “Late Policy,” below.) The first writing exercise will be due at the beginning of week 2.

Between writing exercises, I want you to comment on your teammates’ posts from the previous exercise. Ideally, this will take the form of some ongoing discussion in your
team channel. At the very least, you should comment once on each post. This will be reflected in your engagement grade.

Papers

This course requires a midterm and a final paper written on a topic of your choosing. Coming up with a suitable topic is part of the assignment—a way for you to demonstrate your ability to tie the course material to material outside of it. You will need to submit a 100-word topic proposal before you start writing, so I can make sure you’re on the right track. We will go over the assignment in more detail in class. Each paper should be 2000–2500 words (titled, double-spaced, 12-point font, 1” margins, with your name and date, the usual), submitted as a Word file. You should format your bibliography in the same style as the citations in this syllabus.

We will be taking advantage of the Tufts Writing Fellows Program. This means that you are responsible for turning in a rough draft of your paper roughly two weeks before the final draft is due. You will then meet with a writing fellow to discuss it, before turning in a final draft to me to be graded. The point of this is to give you a chance to really work on your writing, and to avoid last-minute rushes. The deadlines are:

Midterm paper:

October 10: 100-word topic proposal
October 24: Rough draft
November 7: Final draft

Final paper:

November 28: 100-word topic proposal
December 12: Rough draft
December 22: Final draft

Engagement

I expect you to attend and actively engage in class. Unexcused absences will impact your grade. Engagement is not simply a matter of speaking some number of times. Rather, I expect you to engage constructively, respectfully, and generously with the ideas of your classmates and the readings. People learn differently and have different propensities for participation. If you are averse to speaking up in class, please come talk with me and we will come up with suitable alternatives. Your engagement grade will take into account participation in class and on the class Slack.

I do not have a policy restricting the use of technology in class. Take notes with whatever equipment you like. I encourage you to experiment with your technical supports and to find new arrangements that work for you. However, if your devices
appear to be distracting you or others, I reserve the right to revoke these privileges immediately and permanently. Please use class time for class work (i.e. no IRC, IM, Facebook, email, Yik Yak, Snapchat, Instagram, Sina Weibo, Google+, Ello, Peach, etc., unless they’re relevant to the class).

Availability

I try to be available via email, and you should generally receive a reply within 24–48 hours of emailing me. I will also try to be responsive to messages on the class Slack. Some topics are easier dealt with in face-to-face conversation, so I may ask you to come to office hours. As a rule, I do not answer messages over the weekend or after 5 pm the day before an assignment is due. Plan ahead.

I am available for meeting with students during office hours or by appointment if you absolutely cannot make my scheduled office hours. My office in Eaton Hall is only accessible via stairs (Tufts calls this “accessible with assistance”). If stairs don’t accommodate you, let me know, and we can meet elsewhere.

Late Policy

I may grant extensions on papers if you provide three days’ notice and can send me evidence that you are working on an idea that requires more time. These are necessary, not sufficient, conditions for an extension: we will negotiate a new deadline, and there may be reasons for me to decline to extend one. Do not ask for an extension if you have not started writing yet. Late assignments will be docked one half-grade per day.

Academic Integrity

Our expressions are not our own. Humans communicate with words and concepts—that are not of our own making. Writing, like other forms of communication, is a matter of combining existing materials in communicative ways. Different groups of people have different norms that govern these combinations: modernist poets and collagists, mashup artists and programmers, blues musicians and attorneys, documentarians and physicists all abide by different sets of rules about what counts as “originality,” what kinds of copying are acceptable, and how one should relate to the materials from which one draws.

In this course, you will continue to learn the norms of citation and attribution shared by the community of scholars in the social sciences. Failure to abide by these norms is considered plagiarism, as laid out in the Tufts Academic Integrity Policy, which you should familiarize yourself with: http://students.tufts.edu/student-affairs/student-life-policies/academic-integrity-policy. I am required to report suspected violations of this policy to the Dean of Student Affairs, and consequences can be severe. If you have
any questions or doubts about this policy or my expectations regarding assignments, please get in touch with me immediately. Cheating in any form will not be tolerated and offenders will be penalized, reported, and potentially removed from the class.

However, plagiarism policies tend to focus on the less productive side of the issue, urging students to be “original” and telling them what not to do (buying papers, copying text from the internet and passing it off as one’s own, etc.). While you should follow these rules, I encourage you to take a more expansive view of what academic integrity means. Academic integrity is not a matter of producing purely original thought, but of recognizing and acknowledging the resources on which you draw. In light of this, I do not use “plagiarism detection” services like Turnitin. Rather than expending your energy worrying about originality, I suggest that you think instead about what kind of citational network you are locating yourself in. What thinkers are you thinking with? Where do they come from? How might their positions in the world inform their thoughts? What is your position relative to them? How might you re-shape your citational network to better reflect your priorities or ideals?

If you are interested in these issues, I recommend these pieces:


The Syllabus is a Living Document

This syllabus is a starting point for the course. It is subject to change as the term unfolds, in response to your feedback and my assessment of how things are going. I’ll be seeking out your feedback regularly. Since this is the first time this course has been offered, some adjustments are likely. These adjustments may involve altering assignments or adding, removing, or modifying readings. Any changes will be discussed in class and announced via email and Slack. The current syllabus version number is on the front page.

Some of this syllabus was inspired by Stefan Helmreich’s MIT course “Cultures of Computing.”