COMPUTERS, THE INTERNET, AND SOCIETY

CSE 252 / EMC 252 / STS 252

TR 2:35 p.m. - 3:50 p.m.

Packard Lab 466

Spring 2017

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Facebook. PRISM. Fake news. #Occupy. 4chan. Uber. It's easy to find evidence for the effect that technology has on society. It's a bit harder, though, to pin down exactly *how* these effects happen.

This course considers the **nature of the relationship between computing and society**. In it, we explore different accounts for this relationship. By the end of the course, you will be able to:

- identify social or ethical issues in computing technology development and deployment using a variety of conceptual and theoretical frameworks.

- enumerate the various positions that people do or could take on that issue.

- articulate and defend your own position for an appropriate course of action, drawing on examples from previous sociotechnical systems.

The above constitute the *learning objectives and outcomes* for this course.

This is a **writing intensive** course. Writing will occur through a combination of individual and group assignments. These assignments are structured to help you develop your ability to present well-supported arguments. They will also provide you experience discussing the kinds of issues and decisions that you will face after graduation. Anyone who goes into a technology sector will almost certainly need to deal with complex ethical issues. Anyone not directly involved in technology development will also need to consider issues of how different possible configuration of computers and people may affect their work and their lives.

DEBATES

The course structured hinges on a series of debates, each of which focuses on a particular topic. Debates will be conducted in the following manner.

- Each student will be assigned to a debate team of 4 members. Assignments will be made on Monday, January 30, in case of any late adds to or drops from enrollment.

- For each debate, 4-5 teams will be assigned to lead discussion. Each team will be

split in half, with the halves reconstituted into two super-teams of 8 to 10 people. These super-teams will be assigned to argue for opposing positions on the issue. Again, super-team assignments will be made on Monday, January 30.

- Debates will be structured as follows

  - 10 minutes for **opening arguments**, 5 minutes from each super-team. In the interest of time, no slides (e.g., Power Point) or other A/V materials will be allowed allowed. Super-teams should meet before class to plan their presentation.

  - 10 minutes for **small group discussion**. Super-teams convene to determine how they will respond to the opposing super-team's arguments. Everyone else splits into small groups of 4-5 around the classroom.

  - 10 minutes for **questions** from small groups. Responses limited to 2 minutes max from each side.

  - 10 minutes for **closing arguments**, 5 minutes from each super-team. Again, no slides or A/V materials.

  - 5 minute recess (to catch your breath).

- During debates, all those **students not presenting will use Twitter** to comment on the arguments presented. You may use an existing Twitter account, or you may create one specifically for this class. In either event, please send the TA and Professor the name of the account you will be using. You should comment whenever either of the following happens.

  - One of the presenters offers an argument that you find particularly compelling. Summarize the argument and add the debate hashtag.

  - One of the presenters offers an argument that you find suspect. Summarize your critique of the argument and add the debate hashtag.

- These tweets will be recorded and use as part of the participation grade for those students not presenting during a debate.

At the conclusion of the debate, you will then have the remainder of the class period to meet with your debate team (not the super-team, your assigned group of 4 members) and draft a **position statement**. This position statement should articulate your group's position on the issue and should articulate the arguments in support of your position. More details about position statements and debate topics will be made available on CourseSite.

ASSIGNMENTS

All written assignments should be submitted in 10-12 point font, single column, single spaced, with 1" to 1.5" margins, in a legible and appropriate typeface of your choosing. Any references should be cited using APA format. Assignment lengths are specified in word count, exclusive of references, tables, captions, footnotes, etc.

Disconnection Assignment – In an effort to understand the reach of technology's influence in our lives, students will spend **24 hours without electronic communication technology**. This includes computers, phones, portable devices, social networking, TV, radio, and others – even for academic or scholastic purposes[1].

This assignment will be difficult and will likely require some advance planning. Therefore, you are *highly encouraged to complete this assignment early* in the semester. That way, if you are unable to complete the full 24 hours, you will still have time to try again before the assignment is due. During your disconnection time, you will take hand-written field notes. After completing the disconnection, you will write and submit a paper about the experience. Further details, as well as a template for the field notes, will be made available on CourseSite.

In-Class – A writing or other exercise will often be given at the beginning of class, at the end of class, during the middle of class, or some combination thereof. Your work on these assignments will be graded for completion. If you do the assignment, you will receive a satisfactory grade. If you turn in something that shows a lack of effort, that you did not engage with the prompt, or that you did not complete the assigned readings, you will receive an unsatisfactory (half credit). If you are absent and did not notify the TA that you would like to use a personal day (or you have no personal days remaining), you will receive no credit.

Debate Position Papers – Immediately following each debate, you and your team members will collaboratively draft a position paper in class. Position papers should be written using Google Docs and your Lehigh login. If possible, it is best if every member of the team can bring their own device, as it will make tracking of each team member's contributions easier.

At the end of class, you will share (in edit mode) your draft with Prof. Baumer (erb416). He will read each draft and provide feedback, as comments in the document, within roughly 48 hours. The final version of each position paper is then due by the beginning of class 1 week after the original debate. More details will be made available on CourseSite.

Final Video – Rather than a term paper, the final deliverable for this class will be a video. It should be about 5 to 10 minutes in length and will be completed in groups of four to five. Students will choose their own groups for this project. Groups must be chosen with lists of a group name and group members sent to the TA and Prof. Baumer by Tuesday, 2/21. A written or

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1   For valuable suggestions on this assignment, thanks to Melissa Mazmanian at UC Irvine, who in turn drew on ideas from Keri Stephens at UT Austin.

multimedia summary of your planned video should be submitted by Tuesday, 3/28, and the final version is due by Thursday, May 4.

This video should be persuasive. It should engage with a complex issue about the relationship between computing and society, it should take a position on that issue, and it should make an argument in support of that position. The exact format and genre of the video are open. It could be a public service announcement, an infomercial, investigative journalism, fiction, a documentary, etc. If you have a creative idea but are unsure about the appropriateness, please take them up with the Professor prior to when the summary is due. Further details about this assignment will be made available on CourseSite.

ATTENDANCE

Attendance is **mandatory**. A significant portion of the course involves developing an ability to make arguments, both in terms of articulating your own and in terms of understanding others. As such, in-class activities are integral, both to your own and to others' learning, as well as a non-negligible portion of your grade.

Sometimes, though, life happens. In such instances, you will receive **two personal days** to use at your discretion during the semester. To use a personal day, simply email the TA in advance (i.e., before the start of class). No excuse or justification need be given. Any in-class assignments or participation grade that day will not count toward your total. If you miss additional days, those will be counted as a zero toward your in-class assignment and discussion participation grades.

GRADING

You will receive a grade based on the following break down.

15% in-class assignments (1% each week)

15% in-class discussion participation (1% each week)

10% disconnection write-up

15% debate leading

20% debate position papers (5% each for 4 debates)

15% final video project

10% grand finale (aka, final exam)

Grading Scale

98% – 100%	A+	78% – 79.9%	C+
92% – 97.9%	A	72% – 77.9%	C
90% – 91.9%	A-	70% – 71.9%	C-
88% – 89.9%	B+	68% – 69.9%	D+
82% – 87.9%	B	62% – 67.9%	D
80% – 81.9%	B-	60% – 61.9%	D-
		< 60%	F

POLICIES

Technology in Class – While in class, your attention should be on class. Please silence, disable, or turn off any device that makes noise. You are encouraged to use laptops, tablets, etc. for class-related activities, such as consulting the readings or taking notes.

Academic Honesty – "If I have seen further, it is by standing on the shoulders of giants" (Isaac Newton, 1676). In this class, you both are encouraged and will need to draw on the work and ideas of others. However, you must do so with appropriate acknowledgement. For scholarly writing, news media, books, or other publications, this usually means citation. In other cases, a footnote and/or an acknowledgement section may be more appropriate (for instance, see the above footnote about our disconnection assignment). Written assignments will be screened using TurnItIn. Plagiarism will not be tolerated. If in doubt, ask the Professor or TA, or see Lehigh's plagiarism policies (available from http://library.lehigh.edu/content/plagiarism_policies).

Accommodations – Students who may need special academic accommodations are encouraged to contact the Professor as early as possible in the semester to make whatever arrangements may be necessary.

Team Work – A significant portion of the work in this class will be completed in groups or teams. At the end of the semester, you will be asked to evaluate the other members of the teams in which you have worked. Individuals who receive a negative evaluation from one team member will receive a notification that a complaint was made (though not by whom). Individuals who receive a negative evaluation from two team members will receive a 10% deduction in their grade on the project. Individuals who receive a negative evaluation from more than two team members will receive a 50% reduction in their grade on the project. Complex cases may involve external dispute resolution if necessary.

DISSENT

This class deals with complex, contentious topics. As such, you may disagree with the other

students, the TA, the graders, or the Professor. This disagreement is both allowed and encouraged. However, disagreement must be voiced and conducted in a civil manner. From the Lehigh Principles of our Equitable Community:

> *We recognize each person's right to think and speak as dictated by personal belief and to respectfully disagree with or counter another's point of view.*

SCHEDULE

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
WEEK 1	**WELCOME**	
1/24	Preliminaries	
1/26	Howard Rheingold. 2000. The Heart of the WELL. from *The Virtual Community*. MIT Press: Cambridge, MA. http://www.rheingold.com/vc/book/1.html [final section titled "Addiction" optional]	
	Clay Shirky. 2008. It Takes a Village to Find a Phone. In *Here Comes Everybody*. Penguin Books: London. [read pp. 1-14, stop at section titled "New Leverage for Old Behaviors"]	
WEEK 2	**LIVE LONG AND PROSPER**	
1/31	BJ Fogg. 1998. Persuasive computers: perspectives and research directions. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*: 225-232.	Debate Teams Assigned (M 1/30)
	Sunny Consolvo, David W. McDonald, Tammy Toscos, Mike Y. Chen, Jon Froehlich, Beverly Harrison, Predrag Klasnja, Anthony LaMarca, Louis LeGrand, Ryan Libby, Ian Smith, and James A. Landay. 2008. Activity sensing in the wild: a field trial of ubifit garden. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*: 1797-1806.	
2/2	Daniel Berdichevsky and Erik Neuenschwander. 1999. Toward an ethics of persuasive technology. *Communications of the ACM*, 42(5): 51-58.	
	Janet Davis. 2010. Generating Directions for Persuasive Technology Design with the Inspiration Card Workshop. In *Proceedings of the Conference on Persuasive Technology*, 262-273.	
WEEK 3	**DEBATE! #PERSV252**	

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
2/7	Debate Round 1: Persuasive Technology	**Due**: Draft of Position Paper 1
2/9	Cass Sunstein. 2001. The Daily Me. In *Republic.com*, 1-22. Princeton University Press: Princeton, NJ.	**Due**: Disconnection Assignment
	Antonia Regalado. 2016. Life Logging is Dead. Long Live Life Logging? In *MIT Technology Review*. https://www.technologyreview.com/s/601300/life-logging-is-dead-long-live-life-logging/	Receive Feedback on Position Paper 1

WEEK 4   CONSTANT CONNECTIVITY

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
2/14	Matt Richtel. 2010. Attached to Technology and Paying the Price. *New York Times*. http://www.nytimes.com/2010/06/07/technology/07brain.html	**Due**: Final Revision of Position Paper 1
	Nicholas Carr. 2008. Is Google Making Us Stupid? *The Atlantic*. http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/	
2/16	Ellie Harmon and Melissa Mazmanian. 2013. Stories of the Smartphone in everyday discourse: conflict, tension & instability. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*: 1051-1060.	

WEEK 5   DEBATE! #CNCT252

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
2/21	Ricardo Gomez, Kirsten Foot, Meg Young, Rose Paquet-Kinsley, and Stacey Morrison. 2015. Pulling the plug visually: Images of resistance to ICTs and connectivity. *First Monday*, 20(11).	**Due**: Video Team Rosters
	Laura Portwood-Stacer. 2013. Media refusal and conspicuous non-consumption: The performative and political dimensions of Facebook abstention. *New Media & Society*, 15(7): 1041-1057.	
2/23	Debate Round 2: Always On?	**Due**: Draft of Position Paper 2

WEEK 6   (PROF. BAUMER AWAY)

Receive Feedback on Position Paper 2

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
2/28	**No Class**	

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
3/2	**Guest Lecture** Haiyan Jia, Assistant Professor of Journalism and Communication. *The Communication Perspective of Human-Computer Interaction.*	**Due**: Final Revision of Position Paper 2

WEEK 7   RESISTANCE

3/7	Alice Marwick. 2011. "If you don't like it, don't use it. It's that simple." ORLY? *Microsoft Social Media Collective.* https://socialmediacollective.org/2011/08/11/if-you-dont-like-it-dont-use-it-its-that-simple-orly/ Eric P. S. Baumer, Phil Adams, Vera D. Khovanskaya, Tony C. Liao, Madeline E. Smith, Victoria Schwanda Sosik, and Kaiton Williams. "Limiting, Leaving, and (Re)Lapsing: An Exploration of Facebook Non-Use Practices and Experiences." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*: 3257–3266.	
3/9	Ronald Kline. 2003. Resisting Consumer Technology in Rural America: The Telephone and Electrification. In *How Users Matter: The Co-Construction of Users and Technology,* (eds. Nelly Oudshoorn and Trevor Pinch): 51–66. MIT Press: Cambridge, MA. **Optional:** Paul Dourish and Christine Satchell. 2011. The moral economy of social media. In *From Social Butterfly to Engaged Citizen: Urban Informatics, Social Media, Ubiquitous Computing, and Mobile Technology to Support Citizen Engagement* (eds. Marcus Foth, Laura Forlano, Christine Satchell, and Martin Gibbs): 21-37. MIT Press: Cambridge, MA.	**Due**: Outline of Video

WEEK 8   SPRING BREAK

3/14	no class meeting
3/16	no class meeting

WEEK 9   PRIVACY & SURVEILLANCE

Date	Topic & Readings	Assignments etc.
3/21	Leysia Palen and Paul Dourish. 2003. Unpacking "privacy" for a networked world. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*: 129-136.	
	Helen Nissenbaum. 2001. A Contextual Approach to Privacy Online. *Daedalus*, 140(4) 32-48.	
3/23	Alice E. Marwick and danah boyd. 2011. I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1): 114 – 133.	
	Irina Shklovksi, Janet Vertesi, Emily Troshynski, and Paul Dourish. 2009. The commodification of location: dynamics of power in location-based systems. In *Proceedings of the International Conference on Ubiquitous Computing (Ubicomp):* 11-20.	

Week 10 "… and the Great Eye is ever watchful."

3/28	Cynthia Rudin. 2015. New models to predict recidivism could provide better way to deter repeat crime. *The Conversation*. http://theconversation.com/new-models-to-predict-recidivism-could-provide-better-way-to-deter-repeat-crime-44165	
	Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner. 2016. Machine Bias. *Pro Publica*. https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing	
3/30	Michel Foucault. 1977. The Means of Correct Training. In *Discipline and Punish: The Birth of the Prison*: 170-194. Vintage Books: New York.	

Week 11 Debate! #surv252

4/4	Debate Round 3: Surveillance Society	**Due**: Draft of Position Paper 3
4/6	Geoffrey C. Bowker and Susan Leigh Star. 1999. Introduction: To Classify Is Human. In *Sorting Things Out*. MIT Press: Cambridge, MA. [pp. 1-16 and 31-32, skip the section Structure of this Book pp. 16-31]	Receive Feedback on Position Paper 3
	Tarleton Gillespie. 2014. Can an Algorithm be Wrong? *limn* 2. http://limn.it/can-an-algorithm-be-wrong/?doing_wp_cron=1488263403.9042460918426513671875	

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
WEEK 12	**"I SEE YOU DATA IS AS BIG AS MINE…"**	
4/11	danah boyd and Kate Crawford. 2012. Critical Questions for Big Data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society*, 15(5): 662-679 http://www.tandfonline.com/doi/abs/10.1080/1369118X.2012.678878	**Due**: Final Revision of Position Paper 3
4/13	Latanya Sweeney. 2013. Discrimination in Online Ad Delivery. *Communications of the ACM*, 56(5): 44–54. http://dx.doi.org/10.1145/2460276.2460278.	
	Solon Barocas and Andrew D. Selbst. Big Data's Disparate Impact. *California Law Review*, 104(3): 671–732. [only Part I. How Data Mining Discriminates, pp. 673-692]	
WEEK 13	**DEBATE! #DATA252**	
4/18	*Do this before reading*! Use Apply Magic Sauce on your own Facebook profile and/or writing: https://applymagicsauce.com/	
	Wu Youyou, Michal Kosinski, and David Stillwell. 2015. Computer-based personality judgments are more accurate than those made by humans. *Proceedings of the National Academy of Sciences,* 112(4): 1036-1040.	
4/20	Debate Round 4: Algorithms	**Due**: Draft of Position Paper 4
WEEK 14	**SOCIAL IMPACT?**	Receive Feedback on Position Paper 4
4/25	Langdon Winner. 1980. Do Artifacts Have Politics? *Daedalus*, 109(1): 121–36.	
	Bruno Latour. 1992. Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts. In *Shaping Technology / Building Society: Studies in Sociotechnical Change* (eds. Wiebe Bijker and John Law): 225-258. MIT Press: Cambridge, MA.	

DATE	TOPIC & READINGS	ASSIGNMENTS ETC.
4/27	Kentaro Toyama. 2010. Can Technology End Poverty? Boston Review, December 2010. http://bostonreview.net/forum/can-technology-end-poverty Skim responses to Toyama's article.	**Due**: Final Revision of Position Paper 4 **Due**: Final Video Project

WEEK 15 VISIONS AND FUTURES

5/2	Julian Bleecker. 2009. Design Fiction: A Short Essay on Design, Science, Fact and Fiction. *Near Future Laboratory.* http://drbfw5wfjlxon.cloudfront.net/writing/DesignFiction_WebEdition.pdf [sections 01 and 02, pp. 1-23] Bruce Sterling. 2011. Maneki Neko. *Lightspeed.* http://www.lightspeedmagazine.com/fiction/maneki-neko/	**Due**: Debate Team Assessment
5/4	No reading assignment	**Due**: Video Team Assessment (F 5/5)