COMM 494LI – Social Life of Algorithms

Fall 2024
Credits: 3
Tuesday/Thursday 11:30 AM- 12:45 PM (In-Person)

Instructor: Burcu Baykurt
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Teaching assistant: Keyi Chen
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Machmer Hall room W-25

Appointment hours:
Tuesday and Thursday 1 PM- 2 PM (Baykurt)
Monday and Wednesday 10-11 AM (Chen)

Course Description: Algorithmic systems are at the center of today's digital world, and mediate communication processes in areas as diverse as social media, journalism, healthcare, cities and even governments. How do algorithmic systems capture, represent, and transmit information about everyday interactions? How do they shape, and are shaped by, social, cultural, and political life? What kind of new issues and concerns arise from their ubiquitous use? *Social Life of Algorithms* provides a critical introduction to algorithmic systems, and how they relate to issues of communication, power and inequalities in society.

Student Learning Objectives: By the end of the class, you should be able to (1) identify content, interactions, and habits that are shaped by algorithmic systems, (2) demonstrate and critically analyze what kind of values and goals inform the architecture of algorithmic systems, (3) explain different mechanisms through which algorithmic systems reproduce and reinforce inequalities, and (4) review these mechanisms to decipher the effects and consequences of existing algorithmic systems.

Course Materials:
There is no required textbook for this course. All course materials and other critical course content will be on Canvas.

Attendance Policy: Students are required to attend each class and participate in class discussions. If you miss five or more classes, I'll advise you to withdraw. If personal challenges arise for you over the course of the semester, please bring them to my attention; we can work together to discuss alternative means of participation.

Late/ Make-Up Work Policy: Since the assignments and deadlines are given on the first day of class, late assignments should be easy to avoid. If you do hand something in after the deadline it will be marked down at a rate of one grade per day (e.g. if an A paper is one day late it will

receive an A-). If there is a prior agreement between us or there is an emergency that disrupts your ability to get the work finished, please let me know and I will of course be willing to figure out a workable deadline with you.

Grade Weight and Course Requirements:

- Participation- 10%
  - You are expected to show up to class and participate in whatever we are doing. This means getting in on time and staying until class is over. We will also engage in small group work during class now and then. This will be an opportunity for those not comfortable speaking to the larger group to earn some participation points.
- Weekly readings & written responses- 15%
  - Each week will have required readings (academic articles and book chapters) as well as several supplementary materials such as press articles, blog posts, videos, etc., all of which will be available on the course Canvas site. At the start of each week, you are expected to: 1) complete the required readings and videos in time for classes and 2) write a short (~150-300 words) response to the readings, **by 5 pm on Monday**.
- Three Exams - 30%
  - There will be three short exams based on course readings and class discussions. These are in-class exams, and each will count 10% of your final grade.
- Final Project Part I- 20%
  - Throughout the course, you will conduct an "algorithmic audit" of social media platforms or apps you frequently use. The first part of this audit, which will also be your mid-term paper, is to design your audit and share the initial findings in a 5-page essay (1250-1500 words). The details of this assignment are on Canvas.
- Final Project Part II- 20%
  - The final paper will build on the feedback you receive on the midterm paper, report on the final results of your algorithmic audit, and present a strong argument based on your findings and course materials. The essay will not be longer than 10 pages (2500-3000 words). Further instructions are on Canvas.

Grade Scale:

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
F	0-62

Course Schedule:

Class Number and Date	Questions/themes we will explore this session:	How to prepare for this session:	Quick reminders
1. Sept 3	#1 Get to know each other	Come excited; be open-minded & curious!	
2. Sept 5	#2 What do we talk about when we talk about algorithmic systems?	**Read** Cartography of generative AI https://cartography-of-generative-ai.net/ **Read** Kate Crawford and Vladan Joler. 2018. "Anatomy of an AI System."	
3. Sept 10 4. Sept 12	#1 Do digital technologies have politics? How do we know their politics? #2 What is the role of technologies in distributing morality in society, if at all?	**Read** Langdon Winner. 1980. "Do Artefacts have Politics?" **Read** Community Defense: Sarah T. Hamid on Abolishing Carceral Technologies	Post your weekly response on Slack by Monday at 5 pm
5. Sept 17 6. Sept 19	#1 What is machine learning? How does it operate? #2 How do machines learn? #3 How do machines think?	**Read** Cathy O'Neil. 2016. "What is a Model?" **Read** Meredith Broussard. 2018. "Machine Learning: The DL on ML **Read** Jenna Burrell. 2016. "How the	Post your weekly response on Slack by Monday at 5 pm

			Machine 'Thinks': Understanding Opacity in Machine Learning Algorithms." **Play** https://whatsthealgorithm.com/	
7.	Sept 24	#1 What are the social techniques behind algorithmic systems?	**Read** Mark Andrejevic. 2019. "Automating Surveillance."	Post your weekly response on Slack by Monday at 5 pm <mark>First exam on Sept 26th (in-class)</mark>
8.	Sept 26	#2 Can we design algorithmic systems without classification, surveillance or captivation?	**Read** Nick Seaver. 2018. "Captivating Algorithms: Recommender Systems as Traps." **Read** Sophia Ciocca. 2017. "How Does Spotify Know You So Well?"	
9.	Oct 1	#1 What kind of cultural beliefs and values are behind contemporary algorithmic systems?	**Read** Fred Turner. 2009. "Burning Man at Google: A Cultural Infrastructure for New Media Production." **Listen** "Silicon Valley and Beyond" *Public Books* podcast	Post your weekly response on Slack by Monday at 5 pm
10.	Oct 3	#2 What—and who—gets left out of the stories people tell about Silicon Valley?	**Read** Burcu Baykurt, "From circulating liberalism to tech nationalism: U.S. soft power and Silicon Valley." **Read** Ted Chiang "Will AI Become the New McKinsey?	

11.	Oct 8	#1 What is the political economic model of algorithmic systems?	**Read** Matthew Crain and Anthony Nadler. 2017. "Commercial Surveillance State."	Post your weekly response on Slack by Monday at 5 pm
12.	Oct 10	#2 How do data companies and platform companies generate value? Are there any differences between the ways they create value online?	**Read** Marion Fourcade and Kieran Healy. 2017. "Seeing Like a Market." **Read** Shazeda Ahmed. 2019. "The Messy Truth About Social Credit."	
13.	Oct 17	We will workshop your midterm essays working in groups	**Bring** a draft of paper to class, ready to discuss it with your peers	<mark>"Final Project Part I" due OCTOBER 18 by 5 pm on Canvas</mark>
14.	Oct 22	#1 Who profits from our presence on platforms? #2 What do you think people gain from "branding" themselves online?	**Read** "'Having it All' on Social Media: Entrepreneurial Femininity and Self-Branding Among Fashion Bloggers." **Read** Taina Bucher. 2012. "Want to be on the top? Algorithmic power and the threat of invisibility on Facebook." **Read** Natasha Dow Schull. 2016. "Data for Life: Wearable Technology and the Design of Self Care."	Post your weekly response on Slack by Monday at 5 pm
15.	Oct 24	#3 How has being on the internet changed the experience of being human?		
16.	Oct 29	#1 In what ways do algorithmic systems	**Read** Ruha Benjamin. *Race After Technology* (excerpts)	Post your weekly response on Slack by Monday at 5 pm

17.	Oct 31	reproduce inequalities? #2 Are robots racist? Why/why not? #3 Can we reimagine the default settings of technology? Why/why not?	**Watch** "Are robots racist?" **Read** Safiya Noble "The Power of Algorithms"	
18.	Nov 7	#1 How have our views of AI changed so far?	**Read** Ted Chiang, "ChatGPT Is a Blurry JPEG of the Web"	<mark>Second exam on Nov 7th (in-class)</mark>
19.	Nov 12	#1 In what ways do digital technologies change politics? #2 Are we more polarized as a society because of social media?	**Explore** John Keegan. 2019. "Blue Feed, Red Feed: See Liberal Facebook and Conservative Facebook Side by Side." **Read** Francesca Tripodi. 2019. "Devin Nunes and the Power of Keyword Signaling."	Post your weekly response on Slack by Monday at 5 pm
20.	Nov 14	#3 Do tech companies have a political responsibility in democracies? Why/why not?	**Read** All of YouTube, Not Just the Algorithm, is a Far-Right Propaganda Machine **Read** Daniel Kreiss and Shannon C. McGregor. 2018. "Technology Firms Shape Political Communication" **Read** Facebook Is Turning A Blind Eye To Global Political Manipulation, According To This	

		Explosive Secret Memo	
21. Nov 19	#1 What are the ways automated systems are changing work conditions?	**Read** "Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers." **Explore** The Uber Game	Post your weekly response on Slack by Monday at 5 pm
22. Nov 21	#2 What is "ghost work"? How can we recognize it?	**Watch** Algorithmic Cruelty and the Hidden Costs of Ghost Work **Read** Refugees help power machine learning advances at Microsoft, Facebook, and Amazon **Read** Interview With Bessemer Amazon Worker: "It Feels the Same as Most of the BLM Protests"	
23. Nov 28	#1 Can we regulate algorithmic systems? Would that be enough? #2 What are the ways people organize and push back against the consequences of algorithmic systems?	**Read** "How to Hold Algorithms Accountable." **Read** Why 'Ditch the algorithm' is the future of political protest Links to an external site. **Read** #MoreThanCode **Read** Amazon employees hope to confront Jeff Bezos	Post your weekly response on Slack by Monday at 5 pm

		about law enforcement deals at an all-staff meeting **Read** Americans Need a Bill of Rights for an AI-Powered World	

24.	Dec 3	#1 What are the ways people organize and push back against the consequences of algorithmic systems?	**Read** Sam Lavigne, Scrapism: A Manifesto	<mark>Third exam on Dec 3rd (in class)</mark>
25.	Dec 5	#1 We will workshop your final papers.	**Bring** a draft of your final paper, ready to discuss it with your peers.	
26.	Dec 10		Final review of the course	<mark>Final paper due DEC 10th by 5 pm on Canvas</mark>

Academic Honesty Policy:
Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).

Accommodations Statement:
The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements. For further information, please visit Disability Services (https://www.umass.edu/disability/)

Title IX Statement

In accordance with Title IX of the Education Amendments of 1972 that prohibits gender-based discrimination in educational settings that receive federal funds, the University of Massachusetts Amherst is committed to providing a safe learning environment for all students, free from all forms of discrimination, including sexual assault, sexual harassment, domestic violence, dating violence, stalking, and retaliation. This includes interactions in person or online through digital platforms and social media. Title IX also protects against discrimination on the basis of pregnancy, childbirth, false pregnancy, miscarriage, abortion, or related conditions, including recovery. There are resources here on campus to support you. A summary of the available Title IX resources (confidential and non-confidential) can be found at the following link: https://www.umass.edu/titleix/resources. You do not need to make a formal report to access them. If you need immediate support, you are not alone. Free and confidential support is available 24 hours a day / 7 days a week / 365 days a year at the SASA Hotline 413-545-0800.

For purposes of Title IX reporting, I am a considered a "responsible employee" at UMass (https://www.umass.edu/titleix/about). **That means that if you tell me about a situation involving sexual assault, sexual harassment, domestic violence, dating violence, stalking, and retaliation, I must share that information with the Title IX Coordinator**. Making a report to the Title IX Coordinator is my legal obligation, meets the University's goal of providing members of our community with supportive resources they might need, and enables the University to obtain a more accurate picture of the extent of sexual violence in our community. **It will be completely up to you to determine if and how you want to work with the Title IX Coordinator's office. You will not be in trouble for reporting to me that you have experienced any of these situations, and the law prohibits retaliation against anyone who participates in a Title IX process.**

Electronic Devices
The use of electronic devices (tablets & laptops) is permitted when the device is being used in relation to the course's work. All other uses are prohibited in the classroom and devices should be turned off before class starts. I know a lot of you will be reading and taking notes on your computers or tablets, so if you need those in class, that is of course more than fine. If your devices appear to be distracting you or others, I reserve the right to revoke these privileges immediately and permanently.