



Privacy, Security, and Ethics for Big Data

INST366
Spring 2020

Course Description

The increasing number of networked information technologies—including internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems—are generating a tremendous amount of data about individuals, companies, and societies. These technologies offer enormous benefits but also create enormous risks to individual privacy and national security. Further, the ease with which data can be collected from online sources, analyzed, and inferences drawn about individual users raises a wide range of ethical questions about these technologies, their creators, and their users.

In this course, students will evaluate major privacy and security questions raised by big data and related technologies. Students will learn about the history of research ethics and consider how ethical frameworks can and should be applied to digital data. They will work through case studies from real world scenarios to understand the complex interactions between data security, privacy, and ethics in modern businesses. This course is required for the InfoSci Cybersecurity and Privacy Specialization.

Learning Outcomes

After successfully completing this course, you will be able to:

- Identify and explain basic ethical and policy-based frameworks for working with big data and apply these frameworks to real-world cases.
- Explain differences between and shared values across data, ethics, and society.
- Identify situations where data is sensitive, assess the risks, and describe how various stakeholders could respond to those risks.
- Describe how to minimize privacy/security compromises through the data lifecycle (from collection through dissemination).
- Implement good security and privacy practices in personal data storage, use, and reporting.

Required Resources

We will use Canvas (elms.umd.edu) for all announcements, course readings, slide decks, assignments, and communication. View the current week's Module for upcoming readings and assignments. Make sure you have ELMS set up to forward Announcements to your email and/or regularly check your account to ensure you don't miss any class-related information.

You are required to download the **TurningPoint** “virtual clicker” app and set up an account to be used in class. For more information, see <https://it.umd.edu/news/2017/clickers>

Dr. Wayne Lutters

he/him/his
lutters@umd.edu
Hornbake-S 2118F
OH: T/Th 4:45-5:15

Ms. Marilyn Iriarte (TA)

she/her/hers
miriarte@umd.edu
Hornbake-S 2118 pod#18
OH: W 12:00-1:00

Class Meets

Tue/Thu 3:30-4:45
Tydings Hall 2106

Prerequisites

INST201 or permission of instructor

Course Communication

Time-sensitive announcements will be posted on ELMS.

- Contact Dr. Lutters via ELMS or by email (include “INST366” in the subject).
- Contact Ms. Iriarte regarding assignments
- Email correspondence should be like face-to-face correspondence. Include a salutation (Dear Dr./Prof Lutters) and end with your name.

We will reply to emails within 48 hours; if for any reason you have not heard from us after that time, please send us a follow-up email.

University Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Please visit www.ugst.umd.edu/courserelatedpolicies.html for the Office of Undergraduate Studies' full list of campus-wide policies and follow up with me if you have questions.

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, see: www.studentconduct.umd.edu/node/20 It is very important that you complete your own course assignments, and do not share any work. The best course of action to take when a student is having problems with an assignment is to contact the instructor.

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 (www.president.umd.edu/sites/president.umd.edu/files/documents/policies/III-100A.pdf). 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.

Special Needs: Students with disabilities should inform the instructor of their needs at the beginning of the semester. Please also contact the Accessibility & Disability Service (ADS) Office (www.counseling.umd.edu/ads/ 301- 314-7682). ADS will make arrangements with the student and the instructor to determine and implement appropriate academic accommodations. Students encountering psychological problems that hamper their course work are referred to the Counseling Center (www.counseling.umd.edu/ 301-314-7651) for expert help.

Academic Assistance: Learning Assistance Service: If you're experiencing difficulties in keeping up with the academic demands of this course, please consider contacting LAS, 2202 Shoemaker Building, 301-314-7651. Their educational counselors can help with time management, reading and math skills, note-taking, and exam preparation skills. All of their services are free to UMD students. See also www.counseling.umd.edu/academic/

Academic Assistance: Writing Center: (www.english.umd.edu/academics/writingcenter): The Center has tutors available in person and online to help you improve your writing, research, and critical thinking skills. They host a Grammar Hotline: 301-405-3785.

Emergency Preparedness: Please see the University's Emergency Preparedness Website (prepare.umd.edu/) for information about the current status of the campus. If we need to reschedule, I will announce this as soon as possible.

Basic Needs Security: If you have difficulty affording groceries or accessing sufficient food to eat every day, or lack a safe and stable place to live and believe this may affect your performance in this course, please visit go.umd.edu/basic-needs for information about resources the campus offers you. Let me know if I can help.

Course-Specific Policies & Expectations for Students

Attendance: Students are expected to attend every class, from start to finish. If you will be unable to make it to a class, please e-mail me beforehand and be sure to check with a classmate following so that you can catch up on anything you missed. As per University policy, students may submit a self-signed note for a medically necessitated absence. Repeated absences throughout the semester will likely have a negative impact on your final grade, as you will not be able to fully participate in class activities and discussions.

Classroom Environment: Students are expected to actively participate in every class—we learn best together! This will require that you finish all assigned readings prior to each class session. Please be on time for class and stay until the end, unless you have made special arrangements. Entering late and leaving early is distracting to the instructor and to other students. If you must do so, please take the seat nearest the door and be as quiet as possible. In general, 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, including using your phone or computer for non-classroom-related tasks. 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. Any student creating a disruption will be asked to leave for the day.

Digital Devices and Attention Management: Digital devices such as laptops, tablets, and smartphones are permitted for class-oriented activities. The slides will be available in advance of every class and you may want to take notes digitally. We will also use our computers for a number of in-class activities. That said, please be mindful of your ability to focus. Manage your device distractions wisely to ensure you get the most out of our time together.

Names/Pronouns and Self Identifications: The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering inclusive and equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more. Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same.

Missed Deadlines: If you will not be able to meet an *assignment* deadline, contact me at least 24 hours before the due date to explain why you will need to submit the assignment late; requests will be evaluated on a case-by-case basis. If you need to miss an *exam* because of outside circumstances (e.g., a religious holiday, military duties, work/athletic team travel), you must email me at least **one week** before the exam to reschedule your exam time. If you miss an exam due to other circumstances (e.g., oversleeping), you will not be able to make up the exam. Assignments & exams submitted more than seven days late will not be accepted.

Late Assignments: A 10% penalty will be deducted for each day that an assignment is late. Please prepare in advance so that you will not encounter technical difficulties that will result in your work receiving a late penalty. If you have a conflict with the due date, assignments can always be submitted early.

Syllabus & Schedule Change Policy: This syllabus and corresponding course schedule are subject to change with advance notice. If a change becomes necessary, I will announce the change in class and on ELMS. The versions of these documents posted on ELMS will always be the most up to date.

Guidelines for Written Assignments: All written assignments should be submitted via ELMS, by the date and time indicated on the course schedule. Written work should be proofread and revised as necessary before you submit it. Use a readable 12-point font and one-inch margins. All documents should be single-spaced. Be sure to

organize your papers, using section and subsection headings to identify portions of your work. Use APA Style for in-text citations and reference lists. Many resources about APA style are available on the Internet (e.g., owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html; www.apastyle.org/learn/faqs/index.aspx).

Turnitin: For this course, your essays will be collected via Turnitin (www.turnitin.com) on our course ELMS site. I have chosen to use this tool because it can help you improve your scholarly writing and help me verify the integrity of student work.

Get Some Help!

Taking personal responsibility for your own learning means acknowledging when your performance does not match your goals and doing something about it. I hope you will come talk to me so that I can help you find the right approach to success in this course, and I encourage you to visit tutoring.umd.edu to learn more about the wide range of campus resources available to you. In particular, everyone can use some help sharpen their communication skills (and improving their grade) by visiting ter.ps/writing and schedule an appointment with the campus Writing Center. You should also know there are a wide range of resources to support you with whatever you might need (see go.umd.edu/assistance), and if you just need someone to talk to, visit counseling.umd.edu or [one of the many other resources on campus](#).



Most services free because you have already paid for it, and **everyone needs help**... all you have to do is ask for it.

Activities, Learning Assessments, & Expectations for Students

In-Class Activities (2% each, 22% total): While attendance will not be taken in this course, students will regularly participate in class-based activities. This may include individual or group work and/or may require participation using the TurningPoint mobile app for polling/interaction.

Because life happens, I recognize you may have to miss class from time to time; therefore, I will only count the top 11 activities toward your final grade. So, if we have 13 in-class activities, the two lowest scores (including zeros) will be dropped. If you have an excused absence (e.g., religious holiday, doctor's note), I will allow you to make up the activity outside of class, as long as it is submitted within one week of returning to class.

Case Studies (7% each; 42% total): In this class, we'll be using case studies from real-world examples that highlight concepts at the intersection of privacy, security, and ethics of big. For each case study, you will be assigned readings and multimedia that provide an overview of the case, then you will complete a 1-1.5 page (~600-800 word) write-up on based on guiding questions that I will provide.

Ethics Training (3%): To understand how research is conducted in university settings (and most organizations that have an internal review board), you will need to complete the basic Collaborative Institutional Training Initiative (CITI) training in *Social and Behavioral Responsible Conduct of Research*. This involves reading and completing quizzes for several modules on data collection and management. You need a cumulative score of 80% across all quizzes to receive credit for the assignment. Modules can be retested until you reach that threshold. To receive credit, you must upload the certificate you receive for successfully completing training. Instructions on how to complete CITI training are found here (pdf): https://research.umd.edu/sites/default/files/documents/irb-forms/CITI_Training_Completion_Guide.pdf

Managing Your Data Activity (8%): One of the goals of this class is to make you more aware of and informed about how your data is used, and to empower you to take more control over your digital footprint. For this activity, you will explore your use of apps, websites, and other digital services, consider the various privacy tradeoffs you make to use them, and make decisions based on that information. The assignment will include a set of tasks to complete, including going through your mobile phone's location settings, reviewing social media sharing and public/private settings, and Googling your name. Then, you will write up a 2-page (~800-1000 word) reflection on the activity, what you discovered, and whether this activity changed your opinions about the data you share online.

Terms of Service/Privacy Policy Analysis (10%): Companies are required to provide consumers with details regarding the terms of service, which include end-user rights, as well as details on what the company can do with any data they collect from consumers. The vast majority of people never engage with these overly-long, hard-to-understand documents. But perhaps we should, so we can make more informed decisions about our data.

In this assignment, you will select a company you use, read its ToS and privacy policy documents, and critically evaluate the information they contain using the FTC's five Fair Information Practice Principles (FIPPs): Transparency, Choice, Information Review and Correction, Information Protection, and Accountability (for a review: <https://ethics.berkeley.edu/privacy/fipps>). Address areas where the site's policies are strong, where they fall short, and make suggestions for how the company could improve its privacy practices. Finally, consider the ethical and legal ramifications of the policy as it currently stands.

Papers should be 2 pages (~800-1200 words) and should cover the following:

- Include name of company and URLs to relevant policies
- Brief (one paragraph) overview of the organization being evaluated and its history (especially anything that relates to privacy and security of user information)
- Analysis of how the site's privacy policy meets (or falls short) for each of the FTC Fair Information Practice Principles
- Evaluate potential legal and ethical issues related to the company's privacy policy and offer recommendations for how to address these issues.

Final Exam (15%, online): The goal of the final exam is to assess whether you have successfully met the learning outcomes of this class. The exam will require you to complete 3-4 essays on topics related to content covered in the course. The exam questions will be assigned on the final day of classes and you will have until the scheduled final exam date and time to submit your responses electronically. There will be no physical exam during that scheduled exam time.

Grades

Grades are not given but are earned. Your grade is determined by your performance on the diverse learning assessments in the course and is assigned individually (not curved). Grades are maintained external to ELMS, but are posted on a regular basis to the ELMS gradebook. If you have any questions about your grades, please contact either the TA or instructor. We are happy to discuss your progress with you, and if we have made a mistake, we will correct right way. Any formal grade disputes must be submitted in writing *within one week* of receiving the grade.

Your course grade will be determined by your aggregate in-class activity, case study evaluations, ethics training, two essays, and your final exam. The weight of each component is described in the section above and summarized in the table below.

Learning Assessments	#	Points Each	Category Total
In class activities	11	2	22
Case study evaluations	6	7	42
Ethics Training	1	3	3
Essay: Managing Your Data	1	8	8
Essay: Privacy Policy Analysis	1	10	10
Final Exam	1	15	15
Total Points:			100

Final Grades: Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone, I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same this as making the cut (**89.99 \neq 90.00**). It would be unethical to make exceptions for some and not others.

Final Grade Cutoffs									
+	97.00%	+	87.00%	+	77.00%	+	67.00%		
A	94.00%	B	84.00%	C	74.00%	D	64.00%	F	<60.0%
-	90.00%	-	80.00%	-	70.00%	-	60.00%		

Detailed Course Schedule

A detailed class-by-class course schedule is provided as a separate document on ELMS. This lists all lecture topics, readings, assignment due dates, and exams. Please familiarize yourself with this! If any changes are necessary, they will be reflected in this document and announced well in advance in class and on ELMS.



Privacy, Security, and Ethics for Big Data

INST366
Spring 2020

Detailed Course Schedule

V1.0 @ 1/26/20

This is the most current schedule of course lecture topics, readings, activities, and assignments. There may be slight modifications to address campus closures, content coverage, contemporary issues, guest lectures, etc. Assignment due dates are not anticipated to shift. All changes will be announced in class, posted on ELMS, and referenced in the latest version of this document. It is your responsibility to stay up to date. Except where noted, all assignments are due the night before class.

Class	TOPIC & READINGS	WHAT'S DUE?
Part 1: Core Concepts		
1 Jan 28	Course Introduction	Read the syllabus
2 Jan 30	Situating Data: Data in the Digital Age Big Data <ul style="list-style-type: none"> boyd&Crawford (2012), "Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon" 	Complete class survey
3 Feb 4	Fundamentals of Research Ethics	
4 Feb 6	Ethical Frameworks for Evaluating Big Data <ul style="list-style-type: none"> Ohm (2013), The Underwhelming Benefits of Big Data https://scholarship.law.upenn.edu/penn_law_review_online/vol161/iss1/22/ Metcalf (2014), Ethics Codes: History, Context, and Challenges. <i>Data & Society</i>. https://bdes.datasociety.net/council-output/ethics-codes-history-context-and-challenges/ The Menlo Report: Ethical Principles Guiding Information and Communication Technology Research [pdf] ACM's Code of Ethics: https://www.acm.org/code-of-ethics 	
5 Feb 11	Applying Ethics to Digital Data: Challenges & Opportunities <ul style="list-style-type: none"> Engaging the Ethics of Data Science in Practice. <i>Communications of the ACM</i>: https://cacm.acm.org/magazines/2017/11/222176-engaging-the-ethics-of-data-science-in-practice/fulltext Anonymity and the Netflix Dataset: https://www.schneier.com/blog/archives/2007/12/anonymity_and_t_2.html Giving algorithms a sense of uncertainty could make them more ethical: https://www.technologyreview.com/s/612764/giving-algorithms-a-sense-of-uncertainty-could-make-them-more-ethical/ 	CITI Training
6 Feb 13	Case Study Readings: <ul style="list-style-type: none"> Case study: No Encore for Encore? Ethical questions for web-based censorship measurement. https://techscience.org/a/2015121501/ Browse the original article: Burnett & Feamster (2015). Encore: Lightweight measurement of web censorship with cross-origin requests. In <i>ACM SIGCOMM Computer Communication Review</i>, 45:4, 653-667. <ul style="list-style-type: none"> Or watch a video of the paper being presented: https://www.youtube.com/watch?v=cMUTU0OrOAc Recommended: <ul style="list-style-type: none"> Narayanan&Shmatikov (2008), Robust De-anonymization of Large Sparse Datasets: https://www.cs.utexas.edu/~shmat/shmat_oak08netflix.pdf 	Case Study #1: Encore

Class	TOPIC & READINGS	WHAT'S DUE?
7 Feb 18	Privacy and Big Data <ul style="list-style-type: none"> Matsakis (2019), The WIRED guide to your personal data (and who is using it) https://www.wired.com/story/wired-guide-personal-data-collection/ Hansen (2019), Differential privacy, an easy case https://accuracyandprivacy.substack.com/p/differential-privacy-an-easy-case 	
8 Feb 20	<ul style="list-style-type: none"> Uršič (2016), The Right to be Forgotten or the Duty to be Remembered? Twitter data reuse and implications for user privacy. <i>The Council for Big Data, Ethics, and Society</i>. https://bdes.datasociety.net/council-output/the-right-to-be-forgotten-or-the-duty-to-be-remembered-twitter-data-reuse-and-implications-for-user-privacy/ Morozov (2013), The Real Privacy Problem. <i>MIT Technology Review</i> https://www.technologyreview.com/s/520426/the-real-privacy-problem/ 	Essay: Managing Your Data
9 Feb 25	Security Challenges with Big Data <ul style="list-style-type: none"> Turney (2017), Should you fear the internet of things? https://bluenotes.anz.com/posts/2017/06/longread-should-you-fear-the-internet-of-things 	
10 Feb 27	Case Study Readings: <ul style="list-style-type: none"> Read EPIC's backgrounder on the case: https://www.epic.org/amicus/crypto/apple/ Ethics Unwrapped The FBI & Apple Security vs. Privacy: http://ethicsunwrapped.utexas.edu/wp-content/uploads/2016/10/21-The-FBI-Apple-Security-vs.-Privacy.pdf Berinato (2016), Apple vs. the FBI Is Really, Really Complicated. https://hbr.org/2016/02/apple-vs-the-fbi-is-really-really-complicated 	Case Study #2: Apple vs. DOJ/FBI
11 Mar 3	Law & Policy in the U.S. and Abroad <ul style="list-style-type: none"> Warren&Brandeis (1890). The right to privacy. <i>Harvard Law Review</i>. Washington Post: (2018) Tech companies are open to privacy regulations. Congress should act. https://www.washingtonpost.com/opinions/facebook-is-failing-its-own-test-time-for-national-privacy-rules-for-tech/2018/09/28/bc605fac-c1d5-11e8-a1f0-a4051b6ad114_story.html Bursztein (2019) Insights about the first five years of Right to Be Forgotten requests at Google https://elie.net/blog/web/insights-about-the-first-three-years-of-the-right-to-be-forgotten-requests-at-google/ 	
12 Mar 5	<ul style="list-style-type: none"> Jaffe&Hautala (2018). What the GDPR means for Facebook, the EU and you: https://www.cnet.com/how-to/what-gdpr-means-for-facebook-google-the-eu-us-and-you/ 	
Part 2: Examining the Lifecycle of Data: From Collection to Dissemination		
13 Mar 10	Issues from data collection/data mining <ul style="list-style-type: none"> Harris (2014) Distrust Your Data: Six Ways to Make Mistakes with Data. https://source.opennews.org/articles/distrust-your-data/ Willson&Leaver (2015), Zynga's FarmVille, social games, and the ethics of big data mining. <i>Communication and Research Practice</i>, 1(2), 147-158. Hill (2012), How Target figured out a teen girl was pregnant before her father did. Forbes. https://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/ Duus & Cooray (2015), Wearable fitness trackers: the dark side. <i>The Independent</i>. http://www.independent.co.uk/life-style/health-andfamilies/health-news/wearable-fitness-trackers-the-dark-side-a6787171.html 	

Class	TOPIC & READINGS	WHAT'S DUE?
14 Mar 12	Case Study Readings: <ul style="list-style-type: none"> Newton (2015) The mind-bending messiness of the Ashley Madison data dump https://www.theverge.com/2015/8/19/9178855/ashley-madison-data-breach-implications Newitz (2015), Almost None of the Women in the Ashley Madison Database Ever Used the Site. https://gizmodo.com/almost-none-of-the-women-in-the-ashley-madison-database-1725558944 Weinberg (2015), Philosophers On The Ashley Madison Hack http://dailynous.com/2015/08/24/philosophers-on-the-ashley-madison-hack 	Case Study #3: Ashley Madison data breach
UMD Spring Break March 16-20 NO CLASS		
15 Mar 24	Issues with data exploration/analysis <ul style="list-style-type: none"> Lerman, (2013). Big data and its exclusions. <i>Stanford Law Review Online</i>, 66, 55-63. Crawford (2013). The hidden biases in big data. <i>Harvard Business Review</i>. https://hbr.org/2013/04/the-hidden-biases-in-big-data 	
16 Mar 26	TBD	
17 Mar 31	Issues with algorithms & automated systems <ul style="list-style-type: none"> Gillespie (2014). The relevance of algorithms. <i>Media technologies: Essays on communication, materiality, and society</i>. Tufekci (2016) “Machine intelligence makes human morals more important.” TED, Banff, Alberta https://www.youtube.com/watch?v=hSSmmlridUM. Jeong (2016). How to make a bot that isn’t racist. <i>Motherboard</i>. http://motherboard.vice.com/read/how-to-make-a-not-racist-bot 	
18 Apr 2	<ul style="list-style-type: none"> Guszcza et al. (2018) Why We Need to Audit Algorithms. https://hbr.org/2018/11/why-we-need-to-audit-algorithms Courtland (2018) Bias detectives: the researchers striving to make algorithms fair https://www.nature.com/articles/d41586-018-05469-3 Castelvecchi (2016) Can we open the black box of AI? (+ audio interview) https://www.nature.com/news/can-we-open-the-black-box-of-ai-1.20731 	
19 Apr 7	Issues with dissemination/evaluation of data <ul style="list-style-type: none"> Madrigal (2015), The deception that lurks in our data-driven world https://splinternews.com/the-deception-that-lurks-in-our-data-driven-world-1793851547 Ross (2016) Weight Loss On Your Wrist? Fitness Trackers May Not Help https://www.npr.org/sections/health-shots/2016/09/20/494631423/weight-loss-on-your-wrist-fitness-trackers-may-not-help 	
20 Apr 9	TBD	Essay: Privacy Policy Analysis
Part 3: Digging Into Developing Domains		
21 Apr 14	Learning About You Through Your Social Network Data <ul style="list-style-type: none"> Luca (2014), Were OkCupid’s and Facebook’s Experiments Unethical? Harvard Business Review: https://hbr.org/2014/07/were-okcupids-and-facebooks-experiments-unethical Lazer&Kennedy (2015), What We Can Learn From The Epic Failure Of Google Flu Trends https://www.wired.com/2015/10/can-learn-epic-failure-google-flu-trends/ Valentino-DeVries et al. (2018), Your Apps Know Where You Were Last Night, and They’re Not Keeping It Secret 	

Class	TOPIC & READINGS	WHAT'S DUE?
	https://www.nytimes.com/interactive/2018/12/10/business/location-data-privacy-apps.html	
22 Apr 16	<p>Case Study Readings:</p> <ul style="list-style-type: none"> • WATCH: The Cambridge Analytica Scandal: Understanding Facebook's data privacy debacle (The Verge): https://www.theverge.com/2018/4/10/17165130/facebook-cambridge-analytica-scandal • Nature (2018). Cambridge Analytica controversy must spur researchers to update data ethics https://www.nature.com/articles/d41586-018-03856-4 • AMA (2018) The Murky Ethics of Data Gathering in a Post-Cambridge Analytica World https://medium.com/ama-marketing-news/the-murky-ethics-of-data-gathering-in-a-post-cambridge-analytica-world-33848084bc4a <p>Recommended:</p> <ul style="list-style-type: none"> • Ethical Considerations When Companies Study – And Fail to Study – Their Customers (The Cambridge Handbook of Consumer Privacy) 	Case Study #4: Cambridge Analytica
23 Apr 21	<p>Privacy as a Luxury Good: Ethical Research with Marginalized Populations</p> <ul style="list-style-type: none"> • Hess (2017), How Privacy Became a Commodity for the Rich and Powerful. https://www.nytimes.com/2017/05/09/magazine/how-privacy-became-a-commodity-for-the-rich-and-powerful.html • Gellman&Adler-Bell (2017), The Disparate Impact of Surveillance. https://tcf.org/content/report/disparate-impact-surveillance/?agreed=1 	
24 Apr 23	<p>Case Study Readings</p> <ul style="list-style-type: none"> • Wang&Kosinski (2018), Deep neural networks are more accurate than humans at detecting sexual orientation from facial images. <i>Journal of Personality and Social Psychology</i> • Quach (2019) The Infamous AI Gaydar Study was Repeated... https://www.theregister.co.uk/2019/03/05/ai_gaydar/ 	Case Study #5: "Gaydar" Research
25 Apr 28	<p>The Internet of Things, Smart Homes</p> <ul style="list-style-type: none"> • Burgess (2018) What is the Internet of Things? WIRED explains. https://www.wired.co.uk/article/internet-of-things-what-is-explained-iot • Rosner&Kenneally Privacy and the Internet of Things: Emerging Frameworks for Policy and Design: https://cltc.berkeley.edu/wp-content/uploads/2018/06/CLTC_Privacy_of_the_IoT-1.pdf 	
26 Apr 30	<p>The Internet of Things, Smart Cities</p> <ul style="list-style-type: none"> • Globe&Mail (2019) Sidewalk Labs's vision and your data privacy: A guide to the saga on Toronto's Waterfront https://www.theglobeandmail.com/canada/toronto/article-sidewalk-labs-quayside-toronto-waterfront-explainer/ • Wiedeman (2016), Envisioning the Hack That Could Take Down New York City http://nymag.com/intelligencer/2016/06/the-hack-that-could-take-down-nyc.html 	
27 May 5	<p>Search Engines & Recommender Systems</p> <ul style="list-style-type: none"> • Wakabayashi (2017), As Google Fights Fake News, Voices on the Margins Raise Alarm https://www.nytimes.com/2017/09/26/technology/google-search-bias-claims.html • O'Donovan et al. (2019), We Followed YouTube's Recommendation Algorithm Down The Rabbit Hole https://www.buzzfeednews.com/article/carolineodonovan/down-youtubes-recommendation-rabbithole 	

Class	TOPIC & READINGS	WHAT'S DUE?
<p>28 May 7</p>	<p>Case Study Readings:</p> <ul style="list-style-type: none"> Honda (2016) “It was a matter of life and death”: A YouTube Engineer’s Decision to Alter Data in the ‘It Gets Better Project’. <i>Data & Society</i>. Lewis&McCormick (2018) How an ex-YouTube insider investigated its secret algorithm https://www.theguardian.com/technology/2018/feb/02/youtube-algorithm-election-clinton-trump-guillaume-chaslot <p>Recommended:</p> <ul style="list-style-type: none"> Kaptein&Eckles (2010), Selecting Effective Means to Any End: Futures and Ethics of Persuasion Profiling. <i>International Conference on Persuasive Technology</i>. 	<p>Case Study #6: YouTube “It Gets Better”</p>
<p>29 May 12</p>	<p>Course Wrap-Up & Reflections on the Future</p> <ul style="list-style-type: none"> Bridle (2018) Rise of the Machines: Has Technology Evolved Beyond our Control? https://www.theguardian.com/books/2018/jun/15/rise-of-the-machines-has-technology-evolved-beyond-our-control- 	
<p>Final Exam (take home): Complete by Wednesday May 20 12:30p</p>		