

Privacy and Security for a Networked World

Catalog Description

Examining evolving conceptualizations of privacy and security in light of technological developments of 21st century. Analysis of legal, ethical, design, and socially constructed challenges organizations and individuals face when developing privacy and security solutions.

Course Description

Technological innovations in how individuals, organizations, and governments collect and share personal information have raised myriad concerns regarding how that information can be best protected. In today's highly networked world, individuals must acquire the knowledge and skills to engage with technologies in a safe and secure manner. This course provides an interdisciplinary exploration of the social, legal, ethical, and design challenges that arise when it comes to securing personal information and helping individuals maintain desired levels of privacy at home, work, and everywhere in between.

Learning Outcomes

After successfully completing this course you will be able to:

- Demonstrate broad understanding of major privacy and security challenges faced by organizations, groups, and individuals.
- Define and describe current privacy and security paradigms.
- Describe differences in privacy and security practices across different cultures & contexts.
- Evaluate organizations' privacy and security practices and identify strengths and shortcomings.
- Propose design solutions for various privacy and security issues.
- Identify the social, legal, and ethical implications surveillance policies in the workplace and in public spaces.
- Propose policy changes at the organizational and government level to enhance end-user privacy and security.

Required Resources

There is no required textbook for this course. On ELMS (<u>https://elms.umd.edu/</u>), you will find the course syllabus and schedule, presentation materials, announcements, assignment details, grading rubrics, and assigned readings.

Please read the required readings before the class for which they are assigned. Getting the most out of readings is an important skill for understanding and responding to policy issues. Whether reading theoretical perspectives, persuasive arguments, or implementation studies, "close reading" is a valuable technique to learn for information policy and graduate school. Terri Senft has put together a wonderful primer on close reading: <u>http://tsenft.livejournal.com/413651.html.</u> Another great resource is <u>Paul Edwards' "How to Read a Book."</u>

INST611 / INST878M Fall 2023

Dr. Jessica Vitak

Pronounced VEE-tack she/her/hers jvitak@umd.edu

Class Meets ESJ-B0320 Wednesdays 2-4:45pm

Office Hours By appointment: https://calend.ly/jvitak

Prerequisites N/A

Course Communication

Time-sensitive announcements will be posted on ELMS.

Contact me by email (be sure to include "INST611" in the subject or use the Canvas Inbox feature).

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

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

Activities, Learning Assessments, & Expectations for Students

Your final grade will be based on the following components:

Learning		Points	0 .
Assessments	#	Each	Total
Class participation	n/a	15	15
Discussion Boards	9	3	27
Weekly topic leader	1	10	10
Conceptualizing privacy and security	1	8	8
Book report	1	10	10
Final paper and presentation	multiple	n/a	30
	Tota	l Points:	100

Class participation (15%): This class is structured to be discussion-centered. I will lead discussions, but you are expected to actively participate. We are a relatively small class and everyone's voice can be heard. This will require that you finish assigned readings **prior** to each class session. Participation forms an integral part of your own learning experience, as well as that of your classmates. Class participation grades will take into account both the quantity and quality of your contributions to class discussions; however, the quality of your contributions (whether questions, viewpoints, responses to others' questions, etc.) to a meaningful, ongoing discussion will be much more heavily weighted. One mechanism for participating outside of class is to use the link in the top module on Canvas to share links to articles you come across related to class content. If you share a link, you should be prepared to (briefly) discuss it in class.

Discussion Boards (3% each, 27% total): To get the conversation started regarding each week's content, we'll have discussion boards on ELMS. Each week will have 2-4 prompts for you to think about. The goal of these prompts is not for you to "prove" you did the reading, but for you to think beyond the readings and apply them to the real world. You'll be expected to respond to the prompts and interact with your classmates, and posts should be completed by the night before class. We'll use these discussions to help seed our in-class conversations each week. Note that there are 12 discussion boards, but I will only count the top nine scores.

Weekly topic leader (10%): By Week 3, you should review the course topics for the semester and send me a ranking of your top three choices (weeks) to be topic leader (Weeks 5-14). Topic leaders are responsible for the following components:

(1) Find at least one relatively recent (within the last three years) news article related to that week's content that you want to discuss with the class. You should post a link to the news article to that week's discussion board by Monday night so the rest of the class has time to read it before class, along with two questions for the class to consider and that you will discuss in class.

- (2) Meet with me (virtually or in-person) at least two days prior to class to discuss the structure of the class, your selected news article, and an idea for an in-class activity that relates to that week's content. We will work together to refine the activity before class. Schedule your meeting here: <u>https://calendly.com/jvitak</u>
- (3) On the day of class, you will give a short presentation (10-15 minutes) on what you thought was most interesting about that week's topic. This should include a discussion of the shared news article should touch on one or more of the assigned readings, such as by providing more background or context for the papers, describing additional research papers or related news articles not covered in class (or from the recommended readings), or considering the implications of the work. Your goal is to highlight important aspects of the readings or topic and to go a bit deeper, connecting them back to other concepts from class or your own reading and expanding the concepts covered.
 - This should be viewed as a somewhat informal presentation. You do not need to create slides unless that would be helpful. However, you should know what you're going to be talking about the presentation should be clear and concise, not thrown together at the last minute.
 - If you have any additional readings you want to share with the class, you should post links to them on the discussion board (along with the news article).
- (4) As that week's leader, I'll also rely on you to help drive discussion in the class. You should prepare a list of 3+ potential discussion questions that could be used in class to facilitate discussion on the week's topic. Upload these questions to Canvas by Tuesday night.

Conceptualizing networked privacy and security (8%): The words "privacy" and "security" are common terms in modern society, especially in discussions of technology use. But how do people's individual perceptions of these concepts vary? Understanding the commonalities and differences in our understanding of these concepts is essential to both theory and design.

For this assignment, you should conduct **brief** interviews with 3-5 people regarding what privacy and security mean to them. You should attempt to get a diverse sample of perspectives across age, sex, nationality, and other demographic characteristics. In your write-up, you should first reflect on your own understanding of these concepts (i.e., through pre-existing understanding as well as any new insights derived from the first weeks of class), how your perceptions are similar and different to the people you interviewed, and identify and discuss perceived gaps in understanding. The goal is to get you to "think deeply" about these highly complex concepts and begin to understand how your own background, beliefs, and behaviors influence the way you think about privacy and security. What questions are you left with? Spend some time reflecting on what you hope to learn more about during the rest of the semester. Length requirements are detailed on Canvas. **This is due Week 5.**

Book Report (10%): In the past, I've had students in this class read *1984* and used the book to have a wider discussion of surveillance practices and connecting fiction with reality. This semester, I'm asking that you pick the book you want to read, then write a reflection on the course-relevant content covered in that book. Below are some examples of non-fiction books spanning privacy, security, and surveillance topics. You can choose from this list or select something else¹, but if you propose a book not on this list, I need a brief description of why it's relevant. Pick books that align with your interests or that you were planning to read soon – I want you to enjoy this process!

By Week 4, I'd like you to send me your preferred book selection plus a backup, plus a brief description of what you're hoping to get out of reading them. Your book report will be due in **Week 9** (see ELMS for prompts and requirements), and we'll have dedicated time in class during Weeks 9-12 for students to discuss the books.

¹ Another resource to check out is Daniel Solove's annual list of notable books: <u>https://teachprivacy.com/notable-privacy-and-security-books-2022/</u>

Surveillance Books

- Surveillance Capitalism (Zuboff) note that this is a **very** long book
- Predict and Surveil (Brayne)
- Dark Matters: On the Surveillance of Blackness (Browne)
- The Rise of Big Data Policing (Ferguson)
- Black Code: Surveillance, Privacy, and the Dark Side of the Internet (Deibert)
- Dark Mirror: Edward Snowden and the American Surveillance State (Gellman)
- No Place to Hide: Edward Snowden, the NSA, and the U.S. Surveillance State (Greenwald)
- Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor (Eubanks)
- Windows into the Soul: Surveillance and Society in an Age of High Technology (Marx)
- Social Media as Surveillance (Trottier)
- Discipline & Punish (Foucault)
- The Panoptic Sort: A Political Economy of Personal Information (Gandy)
- The Globalization of Surveillance: The Origin of the Securitarian Order (Mattelart)
- Overseers of the Poor: Surveillance, Resistance, and the Limits of Privacy (Gilliom)
- Data Driven: Truckers, Technology, and the New Workplace Surveillance (Levy)
- The Listeners: A History of Wiretapping in the United States (Hochman)
- Spies, Lies, and Algorithms: The History and Future of American Intelligence (Zegart)
- Surveillance State: Inside China's Quest to Launch a New Era of Social Control (Chin & Lin)
- The Politics of Personal Information: Surveillance, Privacy, and Power in West Germany (Frohman)
- We See It All: Liberty and Justice in an Age of Perpetual Surveillance (Fasman)

Privacy Books

- Of Privacy and Power (Farrell)
- Privacy in Context (Nissenbaum)
- The Known Citizen (Igo)

- The Poverty of Privacy Rights (Bridges)
- The Right of Publicity: Privacy Reimagined for a Public World (Rothman)
- Privacy at the Margins (Skinner)
- Privacy is Power (Velez)
- Boundaries of Privacy (Petronio)
- The Closet and the Cul-de-Sac: The Politics of Sexual Privacy in Northern California (Howard)
- Habeas Data: Privacy vs. the Rise of Surveillance Tech (Farivar)
- Ctrl+Z: The Right to be Forgotten (Jones)
- Islands of Privacy (Nippert-Eng)
- The Private is Political (Marwick)
- The Fight for Privacy: Protecting Dignity, Identity, and Love in the Digital Age (Citron)
- Breaking Away: How to Regain Control Over Our Data, Privacy, and Autonomy (Stucke)
- Industry Unbound: The Inside Story of Privacy, Data, and Corporate Power (Waldman)
- Why Privacy Matters (Richards)
- The Voice Catchers: How Marketers Listen In to Exploit Your Feelings, Your Privacy, and Your Wallet (Turow)
- Privacy is Power: Why and How You Should Take Back Control of Your Data (Veliz)
- Privacy at the Margins (Skinner-Thompson)
- Life After Privacy: Reclaiming Democracy in a Surveillance Society (Debrabander)
- The Right to Privacy: Origins and Influence of a Nineteenth-Century Idea (Richardson)
- The Identity Trade: Selling Privacy and Reputation Online (Draper)

Security Books

- Click Here to Kill Everybody (Schneier)
- Secrets and Lies: Digital Security in a Networked World (Schneier)
- Ghost in the Wires: My Adventures as the World's Most Wanted Hacker (Mitnick)
- Countdown to Zero Day (Zetter)
- Breached! Why Data Security Law Fails and How to Improve It (Solove & Hartzog)
- If It's Smart, It's Vulnerable (Hypponen)

Final Paper and Presentation (multiple deadlines; 30%): The main project for this class asks you to choose a topic related to the course, define a specific research question related to that topic, complete a detailed literature review of that topic, and (for PhD students) propose a research study that would evaluate the research question. Specific requirements (including length and citations) will vary based on whether the student is enrolled in INST611 or INST878M, but the final paper should mimic the front end of a published research article and include the following components: (1) abstract, (2) introduction, which sets up the "problem" you're evaluating and your specific research question, (3) literature review, and (4) for INST878M students, a proposed method to test the research question(s).

You must propose your topic by **Week 6** of the course, including your research question, a brief description of its importance/connection to the class, and a brief outline of what the literature review will cover (1 page minimum). I will provide feedback on each proposal, with suggestions for ways to expand or narrow your focus (if needed). You will then submit a progress report in **Week 12** to outline completed tasks, work left to do, and any questions or concerns they have.

During Week 15, each student will give a short presentation (10-15 minutes) on their topic to the class. Final versions of the paper will be due Tuesday, December 12, 11:59pm ET.

You are highly encouraged to submit drafts of any research protocols and/or of the final paper prior to the due date. From years of experience, students who have me provide feedback on their papers (and subsequently implement suggestions) will perform better on the assignment. This also ensures there is no confusion between the project expectations and their interpretation. Note: this is why I require a progress report; more details in that assignment allow me to provide more feedback on how to improve your final submission.

Final Grade Cutoffs									
+	97.00%	+	87.00%	+	77.00%	+	67.00%		
А	94.00%	В	84.00%	С	74.00%	D	64.00%	F	<60.0%
-	90.00%	-	80.00%	-	70.00%	-	60.00%		

Review of Graded Material

I aim to grade all assignments within 1-2 weeks of their due date and post those grades to ELMS. I try very hard to evaluate each assignment fairly, but I can only evaluate what you submit. I don't have the benefit of knowing all of the time and effort you have put into an assignment. Therefore, you need to make that effort stand out.

Because there may be times when I misinterpret what you have written, I am always willing to clarify how I graded your assignment. If you have any questions about a grade you received, you have **two weeks** from receipt of the grade to contact me (in class, through a meeting, or via email) to discuss your grade. After two weeks have passed, that grade is "locked" and I will not re-evaluate it. Before asking me to review an assignment, however, it is important that you carefully read the feedback and grade justification I have provided.

Please also review the grading templates on ELMS before writing each assignment, as this will provide you with a framework through which I will be grading your submission.

Extensions

Timeliness is an essential component of graduate work, and extensions will only be available during personal emergencies. If you need to request an extension, you must discuss the matter **in advance** with me. If an extension

is granted, the work must be submitted within the extension period to avoid grade penalties. Unexcused delays in submission of the paper will result in a deduction of a letter grade for each day the paper is late, while unexcused delays in presentations will result in a deduction of a letter grade for each class meeting the presentation is late.

Late Work

Unless approved in advance of the due date, late work will automatically be graded down by one step (i.e., 5%) for each day it is late (unless otherwise noted in the syllabus). For example, an assignment that would normally receive an A- if submitted on time would receive a B if it was submitted two days late. **In general, assignments more one week late will not be accepted.**

Academic Integrity

Academic dishonesty is a corrosive force in the academic life of a university. It jeopardizes the quality of education and depreciates the genuine achievements of others. Apathy or acquiescence in the presence of academic dishonesty is not a neutral act. All members of the University Community—students, faculty, and staff—share the responsibility to challenge and make known acts of apparent academic dishonesty.

You 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."

Also note that use of Generative AI tools (e.g., Grammarly, ChatGPT) is strongly discouraged outside of basic grammar and structure (e.g., asking a tool to rewrite a long sentence). These tools are trained on internet data, which as you hopefully know by now, varies tremendously in quality and veracity. ChatGPT is frequently called out for providing factually incorrect answers or generating fake articles/papers, as it is deriving text based on formulas rather than confirming a paper actually exists. If you use a tool like this for *any* purpose in an assignment, you must declare what you did and provide detailed notes on how you used the tool to complete your assignment. For example, if you use ChatGPT to help you organize your paper, you should include the prompt you used and describe what you did with the output. If you ask ChatGPT to rewrite an awkward sounding sentence, include the prompt, original text, and text output. This must be submitted as a separate document with your assignment. Failure to do so means I will assume you have not used these tools and any problems in the assignment that are deemed to be derived from GenAI tools will be treated as a violation of academic integrity.

For further clarification or information on the Code of Academic Integrity: <u>https://policies.umd.edu/academic-affairs/university-of-maryland-code-of-academic-integrity</u>

Attendance and Expectations of Student Participation

This class meets once a week. The course will include lecture, discussion, and group work. It is essential that you participate in the discussions of course materials. Participation means active involvement in class discussions. Students are expected to question, challenge, argue, and discuss issues and topics related to that session's readings.

Regular attendance and participation in this class is the best way to grasp the concepts and principles being discussed. However, in the event that a class must be missed due to an illness, you should make a reasonable effort to notify me in advance of the class. If you are absent more than two times due to illness, please schedule a time to meet with me to discuss plans for make-up work. If you are absent on days when papers are due, you are generally expected to still submit the assignment electronically by the due date. Please see the extensions policy below if extra time is needed due to illness.

Classroom Environment

As a graduate seminar, the classroom environment should be professional and respectful. Discussions should be based on course readings and critical thinking. Issues of policy can involve strongly held beliefs and current political controversies. Remember—your classmates may have different perspectives on issues than you, but they still deserve your respect. As another aspect of respect in the classroom environment, turn off or mute all phones and other communication devices during each class session.

Students with Disabilities

Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Disability Support Services office (<u>https://counseling.umd.edu/ads</u>), and (2) discuss any necessary academic accommodation with their teachers. This should be done at the beginning of the semester.

Learning Assistance

If you are experiencing difficulties in keeping up with the academic demands of this course, contact the Learning Assistance Service, 2202 Shoemaker Building, 301-314-7693. Their educational counselors can help with time management, reading, math learning skills, note-taking and exam preparation skills. All their services are free to UMD students.

Emergency Preparedness

Please see the University's Emergency Preparedness Website (<u>http://www.umd.edu/emergencypreparedness/</u>) for information about the current status of the campus. If a class session needs to be rescheduled, I will e-mail you as soon as possible. In the event of **inclement weather**, you should check the UMD homepage (umd.edu) or call 301-405-SNOW (7669) to determine if there are delays or closures. Closures and delays will also be sent over the e2 Campus notification system. Follow the link to sign up for alerts: <u>www.alert.umd.edu</u>. Also make sure you either check your UMD email regularly or forward UMD emails to an account you do check regularly, in case the I ever need to cancel class with little advance notice.

Get Some Help!

You are expected to take personal responsibility for you own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation. Sharpen your communication skills (and improve your grade) by visiting <u>https://gradschool.umd.edu/graduate-school-writing-center</u> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <u>http://www.counseling.umd.edu</u>.

Names/Pronouns and Self Identifications

The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering 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 <u>trans.umd.edu</u> 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 for all of your fellow Terps.

Course Schedule

This course is broken into three sections, and we split the semester across theory, design, and practice. Readings and assignment details are found on Canvas. Note that this schedule is subject to change – finalized readings and assignments will be posted in ELMS and listed in the module for the week they are due.

WEEK	Торіс	WHAT'S DUE?		
PART 1: THEORY				
1 8/30	Introduction and overview; defining core concepts Starting to define privacy, security, surveillance, ethics, big data, and other concepts that are relevant to this course. Recognizing the messiness of these concepts. Beginning to talk about disciplinary differences in how these concepts are studied.	Read the syllabus! Introduce yourself via the discussion board (not for credit)		
2 9/6	Historical Roots of Privacy and Security How did we get here? Understanding the historical events that shaped how we now think about privacy and security in our daily lives.	Discussion Board		
3 9/13	Major paradigms for thinking about privacy & security How do we study these concepts? What theories and frameworks have emerged to understand or categorize attitudes toward privacy and security?	Weekly Topic Leader Preferences Discussion Board		
4 9/20	Critical Theory, Surveillance, and Power What role do critical theories play in understanding who does (and doesn't) get privacy and security? What role do factors like race and class play in these decisions?	Book Report Selection Discussion Board		
PART 2: DESIGN				
5 9/27	Privacy by Design & HCI research on privacy and security What is Privacy by Design? What does research tell us about best practices for building privacy and security into new technologies? What are key examples of privacy and security research among HCI and social computing researchers?	Conceptualizing Privacy & Security Discussion Board		
6 10/4	Ethical questions for new technologies What ethical questions are raised by new technologies? How do researchers address these problems? How do researcher balance (or fail to balance) privacy/security and ethics?	Final Paper Proposal Discussion Board		
7 10/11	Speculative Fiction/Speculative Design How can we use speculative design thinking to consider the privacy risks posed by future technologies—and to think about ways to mitigate those risks?	Discussion Board		

8 10/18	No in-person class meeting (Dr. Vitak will be attending CSCW) Students should use this extra time to complete reading their selected book and work on the book report.	Discussion Board			
PART 3: PRACTICE					
9 10/25	Regulations in the US and abroad We'll consider laws (e.g., CCPA, GDPR) and agencies/regulators (e.g., FTC). Why has the US failed to pass comprehensive privacy reform? How has the EU's GDPR influenced global privacy regulations?	Book Report Discussion Board			
10 11/1	Surveillance at home and work Surveillance technology is entering even our most private spaces. What does surveillance look like in different spaces and for different communities or groups? How can technology be used to push back against surveillance?	Discussion Board			
11 11/8	Privacy, surveillance, and EdTech The pandemic accelerated an increasing focus on ways to monitor students' progress, enhance learning, and prevent cheating, both in K12 and higher education. Does this technology cross the line and invade students' privacy? What kinds of rights do students have to not be monitored at school?	Discussion Board			
12 11/15	Privacy utopias & dystopias: Consequences of making all technology "smart" What privacy and security risks are introduced when we collect data about people in their homes or out in public? How confident are consumers in understanding how data flows from smart devices to third parties? How can companies and governments be more transparent regarding how/what data is collected and how it is used?	Final Paper: Progress Report Discussion Board			
13 11/22	Thanksgiving Break: No Class				
14 11/29	AI, big data, and the "death" of privacy The phrase "privacy is dead" is a common trope, and it makes sense, given how much of our data is collected and used for various purposes. But is privacy really dead? What is being done/ can be done in the future to help people feel in control over their personal information?	Discussion Board			
15 12/6	Final Paper Presentations	Presentations in class (submit night before)			
There is no final exam. Final papers are due Tuesday, December 12, 11:59pm ET.					