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TEXTBOOKS

All readings (both required and recommended) are available on Blackboard.

COURSE DESCRIPTION

Privacy is a complex and multi-faceted concept. This course combines technical, economic, legal, and policy perspectives to present a holistic view of its role and value in the digital age.

The reduction of the cost of storing and manipulating information has led organizations to capture increasing amounts of information about individual behavior. New trade-offs have emerged for parties involved with privacy-enhancing or intrusive technologies: individuals want to avoid the misuse of the information they pass along to others, but they also want to share enough information to achieve satisfactory interactions; organizations want to know more about the parties with whom they interact, but they do not want to alienate them with policies deemed as intrusive. Is there a “sweet” spot that satisfies the interests of all parties? Is there a combination of technological solutions, economic incentives, and legal safeguards that is acceptable for the individual and beneficial to society?

This course tries to address the above questions. In particular, the course begins by comparing early definitions of privacy to the current information-focused debate. It then focuses on:
- technological aspects of privacy (privacy concerns raised by new IT such as the Internet, wireless communications, and computer matching; tracking techniques and data mining; privacy enhancing technologies and anonymous protocols, …),
- economic aspects (economic models of the market for privacy, financial risks caused by privacy violations, the value of customer information, …),
- legal aspects (laissez-faire versus regulated approaches, US versus EU legal safeguards, …),
- managerial implications (the emerging role of Chief Privacy Officers, compulsory directives and self-regulative efforts, …), and
- policy aspects (trade-offs between individual privacy rights and societal needs, …)

Let me repeat a key word from the above description: “holistic.” This term refers to the fact that we will try to cover different angles of the privacy debate, and we will try to connect and contrast each angle to the others. The approach of this class therefore somewhat privileges breadth over depth (while offering tools and directions for more focused analysis), in order to give you a broad and varied understanding of privacy problems in a networked digital society. (For this reason, this class also provides some preparation and introduction for/to other courses you may take at the Heinz College.)

Finally, the intention of the class is not to scare you into believing that every instance of information disclosure is a privacy invasion. Instead, the goal is to educate you about the kinds of information that may be gathered about individuals, and to help you determine the individual and societal trade-offs associated with accepting or avoiding its collection and/or use. Since privacy is a very subjective and contextual feeling, what may be a privacy invasion for you in one setting may not be in another. The challenge we present to you in this course is to understand the difference.

OBJECTIVES

The main objective of this course is to provide an informed and critical view of the role and value of privacy in the digital age. Because privacy is a complex and multi-faceted concept, the course aims to present and combine technical, economic, legal, and policy perspectives.

GRADING

Your grade in this course will be based on the following components:

1. Participation in discussion board on Blackboard  
2. Homework assignments  
3. Final presentation

Discussion Board:

You will find a discussion board called ‘Discussion Forum’ on Blackboard. This forum is for you to interact with your classmates as well as the TAs and the instructor. You are highly encouraged to use this forum to exchange ideas, exchange links to relevant news article or research papers, discuss topics relevant to this course, ask questions about the course and help answer questions that your classmates might have posted. 10% of your final grade will be based on your level of activity on this discussion forum. You should engage in meaningful discussions (either by starting a new discussion thread or by participating in existing discussion threads) at least 2-3 times per week.
Homework Assignments:
You will find three homework assignments on Blackboard. Each assignment is to be submitted to via Blackboard as a Word document or a pdf file. Please remember to name your file in the format: FirstNameLastName_HW#.

Each assignment will constitute 20% of your final grade. We will do our best to grade the assignments and return them to you (with comments on how you can improve) within one week of the submission date.

Homework assignments consist of short reports (with a predetermined maximum number of pages) and/or analyses of topics related to different parts of the course: 1) privacy regulation 2) privacy technologies 3) economics of privacy. Homework assignments will be graded based on the clarity and validity of your arguments and analysis.

Some tips about how to complete a good assignment:

1. Think about the problem presented and described in the exercise.
2. Collect information about it.
3. Think about the problem again after you have studied the information collected.
4. Give a coherent structure to your ideas: keep in mind clarity, concision, intellectual rigor, novelty, critical thinking, and analytical discussion.
5. Write down your ideas, remembering to cite collected information in a properly formatted bibliography. I provide examples of how to cite sources and format a bibliography in a document I uploaded to Blackboard called “How to do research” (further discussed below). You are of course welcome to use any proper format and each source must include at least: name, title, date, and publication (journal/book). [While Wikipedia is a wonderful source of information it is NOT considered a proper source and should therefore not be cited in your work. Also, the lecture videos/slides are also NOT considered a proper source and should not be cited in your work. You will need to identify primary sources (research papers, books, news articles etc.) for any definition/claim/finding.]
6. Edit and proofread your text.

Here is a breakdown of the components that we are looking for in the homework assignments, along with the points you will be awarded on each component:

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| - Clearly developed ideas, presented in a logical sequence
- Covers all questions, with no redundant information or excess wording |      |         |       |           |                        |
| **Clarity:**         | 2    | 4       | 6    | 8         | 8                      |
| - Expresses ideas clearly in own words, to the point |      |         |       |           |                        |
- Few or no spelling mistakes or grammar errors
- Professional appearance, easy to read

**Rigor of analysis:**
- Uses information to draw logical conclusions
- Provides analysis which is intellectually rigorous
- Conclusions are well justified and supported with facts/reasoning
- Uses original thoughts and comparisons, not just re-packaging known information
- Exhibits critical thinking

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**Knowledge of related literature:**
- Shows awareness of related work in the literature or related facts and events
- Appropriately cites related literature, sources, and so forth.

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**Final Presentation:**
You will need to submit a final presentation via Blackboard during the last week of the mini. Details about the topic of this presentation are available in the document titled ‘Final Presentation Topics’ on Blackboard. This presentation should be a 10-12 slides deck where each slide contains concise text (perhaps in bullet points) covering the main points that you want to discuss on that slide.

Because we cannot schedule individual times for everyone to do their presentation separately, you need to choose ONE of the following three formats to “deliver” your presentation:

1) In the notes of the presentation itself you can provide a FULL transcript of what you would say if you were to present this deck to us. In other words, the notes should contain all the words that you would actually say in order to describe the points when you present this deck.

2) You can submit an audio recording of you giving the presentation. Please use a screen capture tool that allows you to record your audio while capturing your computer’s screen, so we know which slide you are at when we listen to your audio recording. There are many free softwares that do this; please write to us if you cannot find such a tool.
3) You can submit a video recording of you giving the presentation. Please make sure that the slides are clearly visible and your voice is clearly audible in the video recording, before you submit it.

Please keep in mind that, irrespective of the format you choose, the presentation should be under 12mins long. So if you submit a video or audio recording, then those recordings should be under 12mins long. And if you choose to submit a full transcript in the notes of the presentation then anybody who reads your transcript should be able to finish reading it in 12mins.

You will see that Prof. Acquisti mentions a project in his videos – please ignore that.

In order to offer some guidance, I have uploaded to Blackboard a very rough draft document titled “How to do research” created by Prof. Acquisti. This document includes a list of tips/hints/suggestions aimed at students who start a Master or a Dissertation research, but should also be useful for smaller projects.

For instance, the document offers information (as well as links to other resources) on how to:

- find and select an attractive research topic,
- find information and look for references on that topic,
- avoid plagiarism,
- create a bibliography,
- write a literature review,
- organize your paper, and
- write a research document.

A NOTE ABOUT CITATIONS IN YOUR HWS AND FINAL PRESENTATION

It is important to cite (and, in fact, properly cite) all sources in your HWs. Citations and references help you build on existing work (so you don’t have to repeat what is already known), demonstrate your awareness of current literature, and support your arguments. They also help avoid you accidentally copying other people’s work.

You are of course welcome to use any proper format and each source must include at least: name, title, date, and publication (journal/book). While Wikipedia is a wonderful source of information it is NOT considered a proper source and should therefore not be cited in your work. Also, the lecture videos/slides are also NOT considered a proper source and should not be cited in your work. You will need to identify and properly cite the primary source (such as research papers, books, news articles etc.) for any definition/claim/finding that you state in your HWs and final presentation.

COURSE SCHEDULE AND TOPICS

The readings are available from the course’s Blackboard site. In the schedule below they are simply indicated by the author’s name (which is also the file name used on Blackboard). Some readings are chapters from Agre and Rotenberg’s book (Agre and Rotenberg, Technology and Privacy: The New Landscape). In the schedule below they are indicated by as “Agre, Chapter…”

I hope you will enjoy and learn from this course!
Lecture 1 (taped on Monday, August 31, 2015)
Topic: Introduction
Today’s Reading: None

Lecture 2 (taped on Wednesday, September 2, 2015)
Topics: Privacy, Security, and Anonymity
Today’s Readings: Warren and Brandeis
Solove - Arguments
Solove - Taxonomy
Posner

Lecture 3 (taped on Wednesday, September 9, 2015)
Topic: Privacy Intrusive Technologies
Today’s Readings: Froomkin (Section I only)
NYTimes

Lecture 4 (taped on Monday, September 14, 2015)
Topic: Privacy and the Legal System: US
Today’s Readings: Froomkin (Sections II and III)
Agre, Chapter 7

You should START working on Homework 1 after viewing Lecture 4.

IMPORTANT: Please view the FIRST 5 minutes and 30 seconds of Lecture 6 (taped on Monday September 21, 2015) before you begin working on Homework 1, in order to get tips from Prof. Acquisti and his TA on how to approach Homework 1.

Lecture 5 (taped on Wednesday, September 16, 2015)
Topic: Comparative Legal Approaches to Privacy and Self-Regulation
Today’s Readings: Samuelson

Homework 1 (privacy regulation) due by 12:00pm (noon) EST on March 30, 2016

Lecture 6 (taped on Monday, September 21, 2015)
Topic: Privacy Intrusive Technologies (continued from Lecture 3)
Today’s Readings: Froomkin (Section I only)
NYTimes

Lecture 7 (taped on Wednesday, September 23, 2014)
Topic: Privacy Technologies - 1
Today’s Readings: Agre, Introduction and Chapter 4
Goldberg

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1 This class has a LOT of readings. You are strongly advised to start reading them early.
2 Also recommended: Agre.html, Serjantov, Agre, Chapter 1, Sweeney, Stanford, Cameron.
3 Also recommended: Swire, Frontline, Guttman, Narayanan, Calo.
4 Also recommended: Prosser, Littman, Mell, Solove-FTC.
5 This article is LONG – you are strongly advised to start reading it early.
7 Also recommended: Swire, Frontline, Guttman, Narayanan, Calo.
8 Also recommended: Goldberg, Jiang, Agre, Chapter 9, Juels, Sheng, Garfinkel.
You should START working on Homework 2 after viewing Lecture 7.

IMPORTANT: Please view the FIRST 5 minutes and 30 seconds of Lecture 9 (taped on Wednesday September 30, 2015) before you begin working on Homework 2, in order to get tips from Prof. Acquisti and his TA on how to approach Homework 2.

Lecture 8 (taped on Monday, September 28, 2015)
Topic: Privacy Technologies – II
Today’s Readings: Claessens
Reiter
Chaum - Mix

Lecture 9 (taped on Wednesday, September 30, 2015)
Topic: Privacy and Online Social Networks
Today’s Readings: Wilson

Homework 2 (privacy technologies) due by 12:00pm (noon) EST on April 13, 2016

Lecture 10 (taped on Monday, October 5, 2015)
Topic: Privacy and Online Social Networks (continued)
Today’s Readings: Wilson

Lecture 11 (taped on Wednesday, October 7, 2015)
Topic: Privacy and Economics I: The Market for Privacy & Data
Today’s Readings: JEL

You should START working on Homework 3 after viewing Lecture 11.

IMPORTANT: Please view the LAST 1 minute of Lecture 12 (taped on Wednesday October 12, 2015) now, in order to get tips from Prof. Acquisti and his TA on how to approach Homework 3.

Lecture 12 (taped on Wednesday, October 12, 2015)
Topic: Privacy and Economics II: The Market for Privacy & Data (continued)
Today’s Readings: Rubin

Lecture 13 (taped on Wednesday, October 14, 2015)
Topic: Psychology and Behavior
Today’s Readings: Science
Acquisti (Immediate Gratification)
Brandimarte

Homework 3 (economics of privacy) due by 12:00pm (noon) EST on April 27, 2016

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9 Also recommended: Chaum – Identification, Zeroknowledge, Low, Brin.
10 Also recommended: Gross, Acquisti, boyd, Frontline_growing_up_online.
11 Also recommended: Gross, Acquisti, boyd, Frontline_growing_up_online.
12 Warning: this article is also very long – start reading it early.
13 Also recommended: Varian, Gellman, Smith, Perrig.
14 Also recommended: Odlyzko, Shostack, Schneier_essay, Syverson, John, Leslie.
Lecture 14 (taped on Monday, October 19, 2015)
Topic: Corporate Privacy and CPOs
Today’s Readings: Stewart EPIC

Final presentation due by 12:00pm (noon) EST on May 9, 2016

Final grades due on May 17, 2016

\[15\] Also recommended: USPTO, HIPAA