

Privacy in a Networked World

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Administrivia

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 - Office: Babbio 624
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- Call or send email to set appointment
 - Put **cs578a** and/or **soc551** in subject
- Office hours
 - Thursdays, 3:30pm–5:00pm (tentative)

Required Course Work

- Class attendance
- **Database Nation: The Death of Privacy in the 21st Century**, *S. Garfinkel*, O'Reilly '00
- **No Place to Hide**, *R. O'Harrow*, Free Press '05
- Other required readings on-line
- Weekly individual **Reverse Homework**
 - Email me questions on last class' topic
 - Clarification questions don't count!
- Class project (next slide)

Class Project

- Individually, or groups of 2–3 students
 - Groups encouraged, but expected to work on larger/deeper/broader projects
- You pick your topic (see sample project topics)
- Deliverables
 - Term paper & in-class presentation
 - Poster session (pending confirmation)
 - Demo, prototype, etc. as appropriate

Work Load Breakdown & Grading

Work load breakdown

- 2.5 hrs/week: Class attendance
- 2.5 hrs/week: Readings & Reverse homework
- 5.0 hrs/week: Class project

Grading

- 25%: Class attendance & Reverse homework
- 25%: Mid-term (Mar 10) & Final exam (May 5)
- 50%: Class project

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What's this course about?

Privacy

- What is privacy and why it matters
- Threats to privacy
- Protecting privacy

Technology

- How technology changed the “privacy game”
- How technology can *hurt* privacy
- How technology can *help* privacy

Class Topics

What is privacy and why it matters

- Informational privacy and the “data shadow”
- Privacy as contextual integrity
- The skeptic’s arguments
 - “I’ve got nothing to hide”
 - “Privacy has to die for security to flourish”
 - “You have zero privacy anyway”
 - “Privacy is the price of modern comforts”
- Identity and Anonymity

Class Topics (2)

Threats to on-line privacy

- On-line accounts, phishing and ID-theft
- Web browsing, profiling and spyware
- Web searches, web-ads and adware
- E-commerce and e-service personalization
- Privacy and Web 2.0
- Censorship

Class Topics (3)

Technological threats to privacy

- RFID tracking
- GPS/Cellphone tracking
- Privacy in the workplace
- Privacy in healthcare
- Surveillance and privacy in public

Class Topics (4)

Protecting privacy

- Privacy regulations and supervising entities
- Privacy-enhancing technologies
 - P3P and related tools
 - Anonymous remailers, web proxying (TOR)
 - Password hardening (PwdHash)
 - Crypto tools (mix-nets, e-cash, credentials)
- Randomization and DB privacy

Sample Project Topics

Evaluation of tracking technologies

- i. WiFi/Bluetooth tracking
- ii. GPS/Cellphone tracking
- iii. Anti-theft RFID-based systems

User privacy in Web2.0

- iv. Disclosure of identifying information in Blogs
- v. ID-theft/stalking in social networks
- vi. Kids on the Internet and parental control

Sample Project Topics (2)

User experience with privacy/crypto tools

- vii. P3P tools (**P**rivacy **F**ox, **P**rivacy **B**ird, ...)
- viii. **PGP/GPG**
- ix. Anonymous remailers/Proxies for web surfing

On-line web-search and practices

- x. What does **Google** know about you?
- xi. The effectiveness of **TrackMeNot**
- xii. The **AOL** search-query data leak

Sample Project Topics (3)

Current privacy practices

- xiii. Corporate mergers/takeovers and changes to web privacy policies
- xiv. Usage of students' SSN as school ID: threat/damage assessment

Misc

- xv. RFID in tickets & passports (FIFA '06, E-Pass)
- xvi. Censorship and the Great (Fire)Wall of China

Class Project Timeline

- Before **January 31**: Come and see me for group formation and project brainstorming
- **February 4**: One-par project proposal (**5 pts**)
- **February 19**: Revised proposal (**10 pts**)
- **March 31**: Status report (**5 pts**)
- **April 21-28**: Project presentations (**20 pts**)
- **May 5(??)**: Poster & Final paper due (**60 pts**)

NB: Firm deadlines—**no credit** beyond due date

Readings for Next Class

- **Database Nation**, Chapters 1–2

- **“I’ve Got Nothing to Hide” and Other Misunderstandings of Privacy**
Daniel Solove [San Diego Law Review (44) '07]
- <http://ssrn.com/abstract=998565>