

PRIVACY IN A TECHNOLOGICAL WORLD

Freshman Learning Communities

A&S 168, Section 605

Fall Term, 2002

Mon, Wed 1:00 - 2:15 pm

Dane Smith Hall 333

Professor: Stephanie Forrest

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Email: forrest@cs.unm.edu (anytime)

Office Hours: Tue. 2-4, Wed. 10-12 (or by appointment)

Textbook:

Selected readings (available through the UNM ereserves system).

Recommended texts:

David Brin The Transparent Society. Addison-Wesley, Reading, MA (1998).

Jeffrey Rosen The Unwanted Gaze. Random House, NY (2000).

Lawrence Lessig Code and Other Laws of Cyberspace. Basic Books, NY (1999).

Catalog Description:

The course investigates the legal and ethical bases of rights to privacy, current technological and cultural challenges to privacy, the engineering methods that have been developed to protect privacy, and how these developments may impact our social and cultural institutions.

Course Assignments and Grading:

The course format is based on regular reading assignments, class discussion of the readings, with several small projects, and one or two exams.

Grades will be based on class attendance and participation (50%), homework assignments (30%), and exams (20%). Some assignments may be jointly graded with the linked 101 section.

Course Topics—Tentative

Introduction (3 weeks)

Topics:

General course introduction
Introduction to the UNM library system.

Readings:

J. Rosen “Silicon valley’s spy game” NY Times Magazine, April 14, 2002.
J. Rosen The Unwanted Gaze, Random House, NY (2000). Prologue, Ch. 5.
D. Brin The Transparent Society, Ch. 1-2.

Visitor:

Prof. Harry Lull, UNM Centennial Library

Origins of Privacy Rights (2 weeks)

Topics:

Is there a right to privacy?

Readings:

U.S. Constitution and Bill of Rights
Warren and Brandeis “The Right to Privacy,” Harvard Law Review,
Vol. 14, No. 5 (Dec. 15, 1890).

Technological Challenges to Privacy (3 weeks)

Topics:

Data mining and cookies
Cell phones
Grocery store buying cards
Network monitoring and Carnivore

Readings:

D. Brin The Transparent Society, Ch. 3-4.
L. Lessig Code and Other Laws of Cyberspace, Basic Books, NY (1999). Ch. 1, 11.
<http://www.cdt.org/security/carnivore/>
M. Blaze and S. Bellovin “Tapping, tapping on my network door,” CACM (2000).
Student selected readings.

Technological Methods for Protecting Privacy (3 weeks)

Topics:

Modular arithmetic
Prime factorization
Public-key cryptography
Zero-knowledge proofs

Anonymizers
Related topics (voting, electronic cash, health records)
Installing PGP on your own computer (optional).

Readings:

M. Hellman "An overview of public-key cryptography," IEEE Communications Magazine, 16:6, pp. 42-49 (1978).
J. Quisquater et al. "How to explain zero-knowledge proofs to your children."
Pretty Good Privacy (selected readings, optional).
Student selected readings.

Visitors:

Justin Balthrop, UNM Computer Science graduate student.

Privacy in our own lives (3 weeks)

Topics:

Privacy of health-care records
Privacy in the university
Privacy in indian country
Corporate privacy policies

Readings:

D. Brin The Transparent Society, Ch. 5-7.
D. Orrick "Toward adequate online privacy safeguards," Computer Vol. 35, No. 8 (Aug. 2002).
A. Foster "Your E-Mail Message to a Colleague Could Be Tomorrow's Headline," Chronicle of Higher Education (June 21, 2002).
J. Young "Why Was Princeton Snooping in Yale's Admissions Web Site?"
Chronicle of Higher Education (Aug. 9, 2002).
R. Toor "Princeton vs. Yale: Post-Frenzy Boredom in Admissions?"
Chronicle of Higher Education (Aug. 16, 2002).
D. Rosenheck "Hack Me: Yale's culpability in the Princeton hacking scandal,"
<http://slate.msn.com/?id=2069385&device=>
<http://slashdot.org/search.pl?topic=158>
Student selected readings.

Visitors:

Prof. Robert Schwartz J.D., UNM Law School
Prof. John Gates J.D., UNM Native American Studies Program
UNM Computer Security officer (?)

Social, legal, and cultural considerations (3 weeks)

Topics:

Law enforcement and the intelligence agencies
National security and privacy
Video vs. Audio privacy protections
Student selected topics

Readings:

Whit Diffie and Susan Landau Privacy on the Line: The Politics of Encryption
(selected readings).

D. Brin The Transparent Society, Ch. 9, 11.