

STSC 160: The Information Age

Professor Nathan L. Ensmenger
Office Hours: M 1:30-3:30, T 1:30-2:30 pm, 362 Claudia Cohen Hall
nathanen@sas.upenn.edu

Teaching Assistants:

Matt Hersch (mhersch@sas.upenn.edu)
Jason Oakes (oakesj@sas.upenn.edu)
Brittany Shields (bshields@sas.upenn.edu)

Course Format:

The Information Age course meets on Tuesdays and Thursdays from 12-1:30 in the Stitler Hall B6 auditorium. To the degree possible with such a large course, our meetings will be a mixed lecture-discussion format. Our Tuesday session will typically introduce our week's topic; Thursday will provide further development, as well as an opportunity to talk about the readings and answer any questions that you might have. You should have prepared the readings in advance for the Thursday session.

Attendance in the course is more than usually mandatory. Since there is no textbook for the course, it is absolutely essential that you attend the lectures. I make extensive use of images, audio, and video. Although I will make some of this material available on the course Blackboard site, much of it will be available only during class. If you do need to miss class please let me or one of the TAs know in advance.

Grading in this class will be based on four major components: four short response papers (20%), a longer primary-source research paper (30%), an in-class mid-term (25%), and a final exam (25%).

Required Readings:

All of the readings for this course will be made available electronically via the course Blackboard site or will be distributed in-class.

NOTE: For the Class of 2009 and earlier, this class fulfills the General Requirement for History & Tradition; For the Class of 2010 and later, it fulfills the General Requirement in the Humanities and Social Sciences

Course Schedule:

I Introduction

September 10: Information, Data, Knowledge

No readings this week.

II The Age of Information

September 15: Gutenberg, Galileo, Google

September 17: Books, Coffee, Revolution

Cook, Scott D.N. "Technological Revolutions and the Gutenberg Myth." In *Internet Dreams: Archetypes, Myths, and Metaphors*, edited by Mark Stefik. Cambridge, MA: MIT Press, 1997.

III Annihilation of Time & Space

September 22: The Politics of the Post-Office

September 24: What Hath God Wrought?

Henkin, David. "Embracing Opportunities: The Construction of the Personal Letter," *The Postal Age: The Emergence of Modern Communications in Nineteenth-Century America* (2007)

John, Richard. "Recasting the Information Infrastructure for the Industrial Age." In *A Nation Transformed by Information: How Information Has Shaped the United States from Colonial Times to the Present*, edited by Alfred Chandler and James Cortada. New York: Oxford University Press, 2000.

IV Industrializing Information

September 29: When Computers Were Human

October 1: Information Factories

Croarken, Mary. "Tabulating the Heavens: Computing the *Nautical Almanac* in 18th-Century England," *Annals of the History of Computing* 25:3 (2003), pp. 48–61.

Aspray, William and Martin Campbell-Kelly. "Babbage's Dream," *Computer: A History of the Information Machine* (1996)

Short response paper #1 due.

V When Information IS Power

October 6: Advertising the American Dream

October 8: Ministry of Truth and Information

Douglas, Susan. "Popular Culture and Populist Technology," in *Inventing American Broadcasting* (Johns Hopkins University Press, 1987).

Gladwell, Malcolm. "The Science of Shopping." *New Yorker* (Nov. 4, 1996)

VI Information Wants To Be Free?

October 13: Film, Music, and Intellectual Property

October 15: Mid-Term #1

In-class mid-term: covers weeks 1–6. Approximately 45 minutes.

VII War. What is it good for?

October 20: Giant Brains; or, Machines that Think

October 22: Build your own Computer!

Edwards, Paul. *The Closed World: Computers and the Politics of Discourse in Cold War America* (1996),
Chp. 2 "Why Build Computers? The Military Role in Computer Research," pp. 43-73.

Short response paper #2 due.

VIII The Computerization of Society

October 27: IBM and the Seven Dwarves

October 29: Software Revolution

Aspray, William and Martin Campbell-Kelly. *Computer: A History of the Information Machine* (1996),
Chapters 5,6.

IX Silicon Valley 1.0

November 3: The Valley of Heart's Delight

November 5: Go West Young Man

Levy, Steve. "The Model Railroad Club," and "The Hacker Ethic," Chapters 1,2 in *Hackers: Heroes of the Computer Revolution*.

Leslie, Stuart and Robert Kargon. "Selling Silicon Valley: Frederick Terman's Model for Regional Advantage." *Business History Review* 70 (1996), pp.435-472.

X Computers, Codes, DNA

November 10: Mechanical Brains to Molecular Biology

November 12: Simulations, Simulacra, and the Matrix

Turkle, Sherry. "Hackers: Loving the Machine for Itself" from *The Second Self: Computers and the Human Spirit*(Simon & Schuster, 1984).

Short response paper #3 due.

XI From Hippies to Hackers

November 17: Triumph of the Nerds

November 19: From Videotext to Videogames

De Lacy, Justine. "The Sexy Computer." In *Computers in the Human Context*, edited by Tom Forrester.
Cambridge, MA: MIT Press, 1989.

Buckingham, David. "Studying computer games" in Diane Carr et al., *Computer games: Text, narrative and play* (Polity, 2006)

Now Showing: Triumph of the Nerds Documentary

XII The PC Revolution

November 24: Great Myths in the History of Computing

Cringely, Robert X. *Accidental Empires: How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition, and Still Can't Get a Date*. (1992). Chapters 7-8, pp. 119–181.

Artifact Assignment: Primary source readings: radio, personal computer, or advertising.

XIII Cyberspace(s)

December 1: Origins of the Internet

December 3: Code is Law

Abbate, Janet. *Inventing the Internet* (MIT Press 1999), Chapters 1-2.

boyd, danah. "Viewing American class divisions through Facebook and MySpace." *Apophenia Blog Essay*. June 24, 2007.

XIV Red Pill, Blue Pill ...

December 8: The Future of the Internet

December 10: The Information Revolution Revisited

Winner, Langdon. "Mythinformation," from *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (1986), pp. 98–117.

Goldsmith, Jack and Wu, Timothy. *Who Controls the Internet?: Illusions of a Borderless World*. Oxford University Press, 2006. Selected excerpts.

Short response paper #4 due.

The final exam for this course is currently scheduled for Tuesday, December 22, from 12-2 PM. Please note that the registrar sets the exam schedule, and they are subject to change.