We are often told that we are living in an “Information Age,” and indeed, this is a truth that seems self-evident: communications and information technologies increasingly pervade our homes, our workplaces, our schools, even our own bodies. But what exactly do we mean when we talk about the “Information Age”? If we are living in an Information Age, when did it begin? What developments — social, economic, political, or technological — made it possible? How does it differ from earlier eras? And finally, and most significantly: what does it all mean?

This course will explore the ways in Western, industrialized societies, over the course of the previous two centuries, came to see information as a crucial commercial, scientific, organizational, political, and commercial asset. Although at the center of our story will be the development of new information technologies — from printing press to telephone to computer to Internet — our focus will not be on machines, but on people, and on the ways in which average individuals contributed to, made sense of, and come to terms with, the many social, technological, and political developments that have shaped the contours of our modern Information Society. Our goal is to use these historical perspectives to inform our discussions about issues of contemporary concern about information technology.
STSC 160: The Information Age

Professor Nathan. Ensmenger
362 Claudia Cohen Hall
Office Hours: M 9-11 am, T 1:30-2:30 pm
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Teaching Assistants:
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Course Format:
The Information Age course meets on Tuesdays and Thursdays from 12-1:30 in the Claudia Cohen Auditorium (G17). 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: two short response papers (20%), a longer primary-source research paper (20%), an in-class mid-term (30%), and a final exam (30%).

Required Readings:
The one required book for this course is available at the Penn Bookstore (or online):

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

This course fulfills the General Requirement in Sector IV: Humanities and Social Sciences.
Course Schedule

I Introduction

September 9: Information, Data, Knowledge
No readings this week.

II The Age of Information

September 14: Gutenberg, Galileo, Google
September 16: Books, Coffee, Revolution


III Revolutionary Information

September 21: Spreading the News
September 23: The Politics of the Post-Office

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

IV Industrializing Information

September 28: Information Factories
September 30: When Computers Were Human


V When Information is Power

October 5: From Ad Men to Big Brother

VI Information Regurgitation

October 14: Mid-Term
In-class mid-term: covers weeks 1–5.

VII War: what is it good for?

October 19: Giant Brains; or, Machines that Think
October 21: Build your own Computer!


VIII The Computerization of Society

October 26: IBM and the Seven Dwarves
October 28: Software Revolution


IX Silicon Valley 1.0

November 2: Silicon Valley 1.0
November 4: Simulations, Simulacra, and the Matrix


X From Hippies to Hackers

November 9: From Videotext to Videogames
November 11: Triumph of the Nerds

Buckingham, David. “Studying computer games” in Diane Carr et al., Computer games: Text, narrative and play (Polity, 2006)
XI  Great Myths in the History of Computing

November 16: No one expects the Computer Revolution . . .
November 18: Apple, IBM, Microsoft


Now Showing: Triumph of the Nerds Documentary

XII  Origins of the Internet

November 23: ARPAnet to Internet

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

XIII  Cyberspace(s)

November 30: The Architecture of the Internet
December 2: Code is Law


Artifact Assignment: Primary source analysis of the early history of the PC.

XIV  Red Pill, Blue Pill . . .

December 7: The Information Revolution Revisited
December 9: Big Finish


Final Exam Information:
The final exam for this course is scheduled for Monday, December 20th from 12-2 pm. Further information will be provided as the Registrar’s office makes it available.