Course Description
This course presents a long-term sociological and anthropological perspective on technologies and techniques relating to the present-day networked personal computer. We begin by considering early manifestations of writing, literacy, printing, organization and bureaucracy; we will then consider the relation between technology and the sciences, before focusing on the radical changes in computing which emerged in the second half of the 20th century, including multi-user operating systems, databases, the software industry, computer games, Internet cultures, simulation and design, quantitative finance and social network sites.

Course Readings
Key: (**): required; (P): for student presentation.

Week 1.1 (Tuesday, 1/10/12)
Introduction to Course

Overview of course; summarization of syllabus.

Week 1.2 (Thursday, 1/12/12)
Introduction to Course, Con't.

  - Ch. 1: From Garden to Earth, pp. 11-20.

Week 2 (Tuesday, 1/17/12; Thursday, 1/19/12)
Technologies and Techniques

  - Ch. 11: The mind of primitive man and the progress of culture, pp. 180-203.
  - Part IV: Body techniques, pp. 95-123.
- (P): Joulian, F. “Significant tools and signifying monkeys: the question of body techniques and elementary actions on matter among apes and early hominids”, in *From Tools to Symbols*:
Week 3 (Tuesday, 1/24/12; Thursday, 1/26/12)
Writing & Literacy

  - Chapter 28: A writing lesson, pp. 294-304.
  - Chapter 2: Communication and technology, pp. 15-44.
  - Chapter 3: Speech, language, and non-literacy: the Limba of Sierra Leone, pp. 45-58.
  - Chapter 4: Literacy vs. non-literacy: the significance of ‘literature’ in non-literate cultures, pp. 59-85.
  - Chapter 9: Postscript, pp. 175-180.
  - Chapter 1: The three Latin sources for the classical art of memory, pp 1-26.

Week 4 (Tuesday, 1/31/12; Thursday, 2/2/12)
Printing

- **In-Class Film: Connections* (1978) Episode 4: "Faith in Numbers"

Week 5 (Tuesday, 2/7/12; Thursday, 2/9/12)
Organization and Bureaucracy

  - Chapter 2: The traditional state: domination and military power, pp. 35-49.
  - Chapter 9: Revolution in generalized control: Data processing and bureaucracy.

Week 6.1 (Tuesday, 2/14/12)
Scientific Norms; Technoscience

  - Chapter 1: Literature.
  - Chapter 2: Laboratories.

Week 6.2 (Thursday, 2/16/12) [No presentations this week]

  - Chapter 3: Machines.

Week 7.1: (Tuesday, 2/21/12)
Technoscience, Con’t.

  - Chapter 4: Insiders Out.

Week 7.2: (Thursday, 2/23/12)
Information Theory and Cybernetics

• (** ) (P) Hayles, N. Katherine. How We Became Posthuman, Selections.

Week 8.1: (Tuesday, 2/28/12)
Information Theory and Cybernetics Pt. 2: Presentations + MIDTERM REVIEW

Week 8.2: (Thursday, 3/1/12)
MIDTERM

Week 9: (Tuesday, 3/6/12; Thursday, 3/8/12)
counterculture and tools


  - Chapter 1: The science of the concrete.


• Whole Earth Catalog [in-class]

Week 10 (Tuesday, 3/13/12; Thursday, 3/15/12)
UNIX and Hacking


Week 11: SPRING BREAK

Week 12 (Tuesday, 3/27/12; Thursday, 3/29/12)
Databases, Programming, and the Software Industry

  - Chapter 6: Computation, globalization, and cultural striation.
  - Chapter 4: Classification, coding and coordination.

Week 13 (Tuesday, 4/3/12; Thursday, 4/5/12)
The Internet and "Virtual" Worlds

• **(**) Wright, A. (2007) Glut: Mastering Information Through the Ages
  - Chapter 11: The Web That Wasn't.
• **(**) Hayles, N. Katherine 'The Condition of Virtuality'. in The Digital Dialectic: New Essays on New Media (Lunenfeld, ed.)
• (P) Abbate, J. (1999) Inventing the Internet.
  - Chapter 3: The most neglected element: users transform the ARPANET.

Week 14 (Tuesday, 4/10/12; Thursday, 4/12/12)
Contemporary Software 1: Design, Simulation, and Games

• (P) Henderson, K. (1999). On line and on paper : visual representations, visual culture, and computer graphics in design engineering.

Week 15: (Tuesday, 4/17/12; Thursday, 4/19/12)
Contemporary Software 2: Consumption: From Finance to Facebook


Week 16.1 (Tuesday, 4/24/12)
Conclusion: Networks and Centers of Calculation

• (**) Latour, B. (1987) Science in Action: How to Follow Scientists and Engineers Through Society
  - Chapter 5: Tribunals of Reason.
  - Chapter 6: Centers of Calculation.

Week 16.2 (Thursday, 4/26/12): FINAL REVIEW AND/OR PRESENTATIONS

Other Recommended Books
  We will not be reading this book in class, but this is probably the best English-language book summarizing and contrasting the various philosophical perspectives on the meaning of “technology”.

Other Resources: Galvin Library
IIT’s Galvin Library is an excellent resource with many books and periodicals available on the social studies of technology, philosophy of technology, and history of computing. By Week 2, many of the books used in this class should be available on reserve.

Other Resources: Writing Center
The writing center is located in Siegel Hall, Rooms 232-233. You may sign up to reserve a specific time, but walk-in appointments are also possible. See:
http://www.iit.edu/cs/hum/resources/writing_center.shtml