HIST 375: History of Computing
TuTh 11:25-12:40
Siegel 202
Fall 2011

Prof. Marie Hicks
Office: Siegel 206
Office Hours: Wednesday 1:30-3:30 pm
(Please speak to me in class or email for an appointment.)
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This course explores the history of computing from pre-electronic calculating technology to current electronic computing and communications technology. Throughout, this course will focus on investigating the social, economic, and political contexts of achievements and developments in the history of computing, as well as the history of hardware and programming techniques.

During this semester, you will learn to think critically about historical sources and analyze both primary and secondary historical materials. Your comprehension and memory of the readings will tested on a midterm exam, a short paper assignment (3-5 pp.), and a take-home final paper assignment (in lieu of an exam).

Readings must be completed for the day that they are listed. There will be a few (unannounced) reading quizzes to ensure that everyone is keeping up. Readings marked with an "(R)" will be on reserve on our Blackboard site, or in some cases through the library. Two main texts are available in the bookstore. Please buy them as we will be reading large portions: *Computer: A History of the Information Machine* by Martin Campbell-Kelly and Bill Aspray, 2nd ed. (Westview Press, 2004) and *Who Controls the Internet?: Illusions of a Borderless World* by Tim Wu and Jack Goldsmith (Oxford, 2008).

Your course grade will be broken down as follows:
Attendance and participation: 20%
Reading quizzes and in-class exercises: 20%
Short Paper (3-5 pp.): 20%
Midterm Exam: 20%
Final Paper (8-10 pp.): 20%

Cheating, plagiarism, and academic dishonesty will not be tolerated and will result in a failing grade. If you are in doubt about what constitutes plagiarism or academic dishonesty, consult the code of student conduct or make an appointment to speak with me during my office hours **before** you pass in an assignment. Remember that it is never appropriate to use someone's ideas or words without giving them credit, and that copying text from sources, in addition to being plagiarism, short-circuits the learning process and isn't what I want to see in your papers.

You can get help with improving your writing at the **Humanities Department Writing Center** located in Siegel 232-233. If English is not your first language, ask for James Dabbert (dabbert@iit.edu) or Gail Lehman: http://www.iit.edu/csl/hum/resources/writing_center.shtml

Class Schedule:

Tu Aug 23   Introduction and in-class exercise with historical newspaper articles

Automating Computation: Precursors to Modern Computing
Th Aug 25   Ch. 1: When Computers Were People in *Computer: An Information Machine* (pp. 3-23)

Tu Aug 30   Ch. 2: The Mechanical Office in *Computer: An Information Machine* (pp. 23-44)

The World of Business Machines
Th Sept 1   Cortada, *Before the Computer*, Ch. 3 (pp. 44-63) and Ch. 8 (pp. 129-136) (R)

Tu Sept 6   Ch. 3: Babbage's Dream Comes True in *Computer: An Information Machine* (pp. 45-66)

Computing Comes of Age
Th Sept 8   Beyer, *Grace Hopper and the Invention of the Information Age* (pp. 35-72) (R)

Tu Sept 13   Hinsley and Stripp, *Codebreakers*, "The Bombes" (pp. 132-137) (R)
                 Copeland, *Colossus* pp. 159-167, and pp. 171-175 (R)
                 "Heath Robinson" article (1p.) (R)
                 Selected BBC articles on Colossus (5 pp.) (R)
                 Excerpts from *Engines of Logic* pp. 139-145, 167-175, 185-197 (R)

Th Sept 15   Ch. 4 in *Computer: An Information Machine* (pp. 69-92)

Tu Sept 20   Light, "When Computers Were Women" (pp. 455-483) (R)
                 ENIAC

Making Mainframes Productive
Th Sept 22   Beyer, *Grace Hopper and the Invention of the Information Age* (pp.175-192, 208-261)(R)

Tu Sept 27   Ch. 5 in *Computer: An Information Machine* (pp. 93-117)
                 FIRST PAPER DUE (at beginning of class)

Th Sept 29   Ch. 6 in *Computer: An Information Machine* (pp. 117-140)

Tu Oct 4   Bassett, "Aligning India in the Cold War" (pp. 783-810) (R)

Creating Computing Professionals
Th Oct 6   Ensmenger, "The Question of Professionalism in Computing Fields" (pp. 56-70) (R)
                 Hicks, "Only the Clothes Changed" (pp. 2-14) (R)

M Oct 10   FALL BREAK (one day)

Tu Oct 11   MIDTERM EXAM

New Models of Computing
Th Oct 13   Ch. 7 in *Computer: An Information Machine* (pp. 141-162)

Tu Oct 18   Ch. 8 in *Computer: An Information Machine* (pp. 163-184)

Towards our Modern Conception of Computing
Th Oct 20   Ch. 9 in *Computer: An Information Machine* (pp. 185-206)
                 Historical News Article Exercise in Class

Tu Oct 25   Ceruzzi, "Inventing Personal Computing" article (pp. 64-82) (R)
                 Ch. 10 in *Computer: An Information Machine* (pp. 207-230)

Th Oct 27   Ch. 11 in *Computer: An Information Machine* (pp. 231-254)

Tu Nov 1   Ch. 12 in *Computer: An Information Machine* (pp. 255-279)

Th Nov 3   NO CLASS (I will be at the Society for the History of Technology Conference. Use this
                 time review or catch up on readings you might have missed.)

Re-making Information Technology

Tu Nov 8   Abbate, "Privatizing the Internet: Competing Visions and Chaotic Events, 1987-1995"
                (10 pp.) (R)
                "Internet History from ARPANET to Broadband" 2007 *Congressional Digest* (5 pp.) (R)

Th Nov 10   Excerpts from Levy, *In the Plex: How Google Thinks, Works, and Shapes Our Lives* (R)

Legal, Economic, and Global Dimensions

Tu Nov 15   *Who Controls the Internet?* (pp.1-46)

Th Nov 17   *Who Controls the Internet?* (pp. 105-125)

Tu Nov 22   *Who Controls the Internet?* (pp. 49-64, 72-86, 92-97, 163-177)

Th Nov 24   NO CLASS, THANKSGIVING BREAK

Tu Nov 29   *Who Controls the Internet?* (pp. 179-184)
                Selected news articles on computer waste (R)

The Evolution of Tools for Thinking: Where We've Been and Where We're Going

W Dec 1   Postman, *Technopoly* (pp. 3-20) (R)
                Selected news articles (R)

<u>Final Paper due on date of Final Exam:</u> you must bring a printed copy to my office, Siegel 206 during
the time scheduled for the course's final exam. (No emailed submissions can be accepted.)