**HIST 375: Computing in History**

MW 11:25-12:40

Eng 1 Rm 119

Fall 2012

*“Don't worry about people stealing your ideas. If your ideas are any good you'll have to ram them down people's throats.” --Howard Aiken*

Professor Hicks

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Office: Siegel 206

Office Hours: Wednesdays 3:15-4:15pm (Please email or speak to me after class for an appointment.)



(Excerpt from *General Report on Tunny With Emphasis on Statistical Methods*, 1945,

p. 276, file HW 2/25, UK National Archives.)

**Course Description:**

This class 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 in the history of computing. In addition to focusing on developments in the history of hardware, programming techniques, and labor organization, we will be attentive to how information processing technologies create systems, and interlock with other systems, to produce powerful socioeconomic changes.

During this semester, you will learn to think critically about historical sources and analyze both primary

and secondary historical materials. The course will require you to be an attentive listener, note-taker, and discussant, as well as a careful writer. Your comprehension and memory of the readings, lectures, and class exercises will be assessed using multiple means to ensure your have an opportunity to display your mastery of the material.

Your **course grade** will be broken down as follows:

Attendance and participation (includes pop quizzes and in-class exercises): 20%

Comments on Blog Posts: 20%

Midterm Exam: 20%

Short Paper (5-7pp.): 20%

Final Exam: 20%

**Readings** must be completed for the day that they are listed. Readings not in the textbooks below will be on our Blackboard site if they have an (R) next to them, or linked from the syllabus. There will be a few (unannounced) quizzes to ensure that everyone is keeping up with the material. These quizzes may be written or oral; in the case of oral quizzes only you will be allowed to use your class notes.

Two books are available in the bookstore. Buy them: we will be reading all or most of these texts.

1. ***Computer: A History of the Information Machine* by Martin Campbell-Kelly and Bill Aspray, 2nd ed. (Westview Press, 2004)**
2. ***Who Controls the Internet?: Illusions* *of a Borderless World* by Tim Wu and Jack Goldsmith (Oxford, 2008).**

**Resources** that you will be expected to use in this class include the databases linked from Galvin Library’s History Research Guide: <http://guides.library.iit.edu/content.php?pid=114040&sid=986140>. Please familirize yourself with them at the start of the term.

Contact John Dorr, the humanities librarian for further help with these resources. Google is not an academic resource, and I do not expect you to use it as a panacea for your class assignments. Same goes for Wikipedia: I hope we can all agree that reading an online encyclopedia is not adequate for college level humanities research.

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 Mr. Dabbert or Ms. Lehman: <http://www.iit.edu/csl/hum/resources/writing_center.shtml>

**Reasonable accommodations will be made for students with verified disabilities**. In order to access these provisions you must register with Aggie Niemiec aniemiec@iit.edu in the Disability Service Office at the **start of the semester** and you must also **speak with me during the first week of class** so we can plan for the needed accommodations.

**Cheating, plagiarism, and academic dishonesty** are serious offenses and will not be tolerated. They will result in a failing grade as well as sanctions from the university. If you are in doubt about what constitutes plagiarism or academic dishonesty, re-read the code of student conduct in your handbook or speak with me **before** turning in the work. Remember that it is never appropriate to use someone’s ideas or words without giving them credit, and that copying text from sources or peers--in addition to being plagiarism and cheating--short-circuits the learning process. Please also note that the code of student conduct requires that you inform your professor or academic advisor if you witness others engaging in academically dishonest behavior.

**Class Schedule:**

M Aug 20 Introduction and in-class exercise with historical newspaper articles

**The World of Business Machines**

W Aug 22 Ch. 1: When Computers Were People in *Computer: An Information Machine* (pp. 3-23)

 and Cortada, *Before the Computer*, Ch. 5 (79-88) (R)

M Aug 27 Ch. 2: The Mechanical Office in *Computer: An Information Machine* (pp. 23-44) and look at charts on pp. 60-63 of Cortada, *Before the Computer*

**Automating Computation: Precursors to Modern Computing**

W Aug 29 Ch. 3: Babbage’s Dream Comes True in *Computer: An Information Machine* (pp. 45-66) –Comrie through Mk I

**FIRST BLOG COMMENT DUE by 10pm on Thursday, Sept. 6 (no credit for late responses)**

M Sept 3 NO CLASS—Labor Day

W Sept 5 Beyer, *Grace Hopper and the Invention of the Information Age* (pp. 35-72) (R)

**Wartime: Computing Comes of Age**

M Sept 10 Selected BBC articles on Colossus (5 pp.) (R)

Copeland, “Colossus: Breaking the German ‘Tunny’ Code at Bletchley Park. An Illustrated History” available at: <http://www.rutherfordjournal.org/article030109.html> (approx. 20 pp.)

W Sept 12 Ch. 4 in *Computer: An Information Machine* (pp. 69-92)

M Sept 17 Light, “When Computers Were Women” (pp. 455-483) (R)

**SECOND BLOG COMMENT DUE by 10pm on Thursday, Sept. 20 (no credit for late responses)**

**Deploying Mainframes in Peacetime and Cold War**

W Sept 19 Beyer, *Grace Hopper and the Invention of the Information Age* (pp.175-192, 208-261)(R)

M Sept 24 Ch. 5 in *Computer: An Information Machine* (pp. 93-117)

W Sept 26 Ch. 7 in *Computer: An Information Machine* (pp. 141-162)

M Oct 1 Bassett, “Aligning India in the Cold War” (pp. 783-810) (R)

 In-class exercise using primary documents

W Oct 3 **MIDTERM EXAM**

M Oct 8 FALL BREAK--NO CLASS

W Oct 10 Ch. 6 in *Computer: An Information Machine* (pp. 117-140)

**Creating Computing Professionals**

M Oct 15 Ch. 8 in *Computer: An Information Machine* (pp. 163-184)

 *Automation and Employment Opportunities for Office Workers* (1958, US Dept. of Labor, 14 pp.) (R)

W Oct 17 Hicks, “Only the Clothes Changed” (pp. 2-14) (R)

M Oct 22 Ensmenger, “The Question of Professionalism in Computing Fields” (pp. 56-70) (R)

**New Models of Computing**

W Oct 24 Ch. 9 in *Computer: An Information Machine* (pp. 185-206)

**Towards our Modern Conception of Computing**

M Oct 29 Ch. 10 in *Computer: An Information Machine* (pp. 207-230)

and historical news article exercise

W Oct 31 Ch. 11 in *Computer: An Information Machine* (pp. 231-254)

M Nov 5 Ch. 12 in *Computer: An Information Machine* (pp. 255-279)

**PAPER DUE (at beginning of class)**

W Nov 7 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)

Paul Baran Interview: <http://www.wired.com/wired/archive/9.03/baran.html?pg=1&topic=&topic_set>=

**Re-making Information Technology**

M Nov 12 Excerpts from Levy, *In the Plex: How Google Thinks, Works, and Shapes Our Lives* (R)

 and information from Pew Research on user adoption of internet over time: pewrsr.ch/HGgCHm

W Nov 14 *Who Controls the Internet?* (pp. 1-46)

and article on the political power of internet companies: <http://www.guardian.co.uk/technology/2012/feb/26/internet-companies-power-politics-freedom?CMP=twt_gu>

**THIRD BLOG COMMENT DUE Thursday Nov. 15 by 10pm (no credit for late responses)**

**Legal, Economic, and Global Dimensions**

M Nov 19 *Who Controls the Internet?* (pp. 105-125)

 Article on bit.ly and Libyan enforcement of Sharia Law: <http://www.bbc.com/news/technology-11484751>

W Nov 21 NO CLASS—Thanksgiving Break

M Nov 26 *Who Controls the Internet?*(pp. 49-64, 72-86, 92-97, 163-177)

and article on complexities of China’s online censorship: <http://arstechnica.com/tech-policy/2012/06/chinese-online-censorship-targets-collective-action-posts/>

W Nov 28 *Who Controls the Internet?* (pp. 179-184)

Selected news articles on computer waste and other topics (R)

**FOURTH BLOG COMMENT DUE Thursday Nov. 29 by 10pm (optional—extra credit)**

**Final Exam:** Date TBA (Check the official university exam schedule for more details.)