Stevens Institute of Technology College of Arts & Letters

Program in History

| HSS 371: Computers & Society | | | |
|--|--------------------------------|--|--|
| Dr. Andrew L. Russell | | | |
| | | | |
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| Office Hours: Thursday 1.50-2.50 pm and by appointment | Office: Morton 329 | | |

FALL 2010

371 A: Wednesday 9.00-11.50 am Classroom: Burchard 124 371 B: Thursday 9.00-11.50 am Classroom: Babbio 220

Link to Schedule, Reading List, and Assignments

Course Description and Goals:

Winston Churchill once said "We shape our buildings; thereafter they shape us." The goal of this course is to apply Churchill's insight to understand the social aspects of computing. Topics will include the history of computers and the Internet, the effect that the Internet has on our brains and ways of thinking, ethical issues in computing, and policy debates over privacy, intellectual property, antitrust, the global digital divide, and the "openness" of computers and networks.

HSS 371 has the following course goals:

- Enrich your understanding of the history of computing and networks.
- Think in greater depth about some ethical dilemmas of computing.
- Become familiar with debates over the role of computers in thinking and learning.

These goals are designed to contribute to the mission of the College of Arts & Letters as well as the outcomes of the BS program in Computer Science.

Specifically, HSS 371 seeks to advance the mission of the College of Arts & Letters in the following ways:

- Promote ethical responsibility and awareness of the societal impact of one's future profession.
- Improve writing and/or public speaking skills.

Additionally, HSS 371 contributes to four of the outcomes for students in the Stevens BS in Computer Science:

- Write and present technical reports at a level expected of the software engineering profession.
- Know about ethical problems that face computer scientists and software engineers.
- Analyze the local and global impact of computing on individuals, organizations and society.

• Exhibit an ability to think and argue critically on issues that are social, historical, literary and artistic; demonstrate a basic level of skills in communication and logical analysis.

Textbooks to purchase (available at the campus store):

Nicholas Carr

The Shallows: What the Internet is Doing to Our Brains

W. W. Norton & Company (2010)

ISBM-10: 0393072223

Pekka Himanen

The Hacker Ethic: A Radical Approach to the Philosophy of Business

Random House Trade Paperbacks (2002)

ISBN-10: 037575878X

Humanities Resource Center:

If you want assistance writing your papers, you should ask for help well ahead of the paper's due date. For more information, get in touch with me and/or visit the <u>Writing & Communications Center at Stevens</u> in Morton 210 (Office Hours M-F 1-5 pm).

Honor Board Policies:

You should by now be familiar with <u>The Honor System at the Stevens Institute of Technology</u>. It is your responsibility to uphold the ideals set forth in the Honor System Constitution. Specific student responsibilities include:

- Maintaining honesty and fair play in all aspects of academic life at Stevens;
- Writing and signing the pledge, in full, on all submitted academic work;
- Reporting any suspected violations to an Honor Board member or to the Dean of Student Development;
- Cooperating with the Honor Board during investigations and hearings.

If you ever have questions about how to interpret the Honor System in relation to your work in my class, please get in touch with me.

Students with disabilities:

If you require special accommodations due to a disability, or if you need individual arrangements should the building be evacuated, you must inform the office of <u>Student Counseling and Psychological Services</u>, Dr. Terence Hannigan, Director, in the Howe Center, 7th floor (x5177), and complete the Faculty Contact Form. Once you have done so, you should ask to meet with me so that we can work out any special arrangements that may be necessary.

Grades and Course Policies:

Attendance is mandatory. Any absences must be accounted for by notifying me *before* the start of class. Otherwise I will need verification from an outside authority (i.e., doctor, coach, another professor) explaining why it was necessary for you to miss class. Cell phones should either be turned off or silenced. Computer use should be related to what we are doing in class. Any students in violation of these simple rules will be marked as absent for that particular class.

Grades will be based on the following criteria:

- Participation (30%)
 - Attendance
 - Weekly reading responses
 - o Current events responses (every other week)
- Midterm and final exams (20% each)
- 3-part book assignment (30%)
 - o 500-word book review
 - class presentation
 - o 2000-word review essay

Percentages are approximate. I will determine final weights at the end of the course. I reserve the right to give pop quizzes.

Link to Schedule, Reading List, and Assignments

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Schedule, Reading List, & Assignments:

The schedule and assignments are subject to change during the semester. If you rely on a printed version of this schedule, please check back here regularly to make sure you have the most current version.

Last revised: September 14, 2010

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| Date | Topic | Reading Assignment | Assignment |
|----------------------------------|------------------|--|---------------------------|
| Week One Sept. 1 and 2 | Introduction | | |
| Week Two Sept. 8 and 9 | Digital Nation | Mark Helprin, "The Acceleration of Tranquility" (eLearn) Watch <i>Digital Nation</i> and explore the website, http://www.pbs.org/wgbh/pages/frontline/digitalnation/ | Reading response 1 due |
| Week Three Sept. 15 and 16 | Computer History | Rheingold, <u>Tools for Thought</u>, chapters 1-6 Pfaffenberger, <u>Social Meaning of the</u> <u>Personal Computer</u> Explore some <u>Computer History</u> <u>websites</u> | Reading response 2 due |
| Week Four Sept. 22 and 23 | Internet History | Everyone read: Rheingold, <u>Tools for Thought</u> , chapter 7; and Licklider, <u>Man-Computer Symbiosis</u> . GROUPS: 1. Pelkey, <u>Entrepreneurial Capitalism and Innovation: A History of Computer</u> | Reading response 3 due |

Communications, 1968-1988

- 2. Hauben, History of ARPANET
- 3. Abbate, Government, Business, and the Making of the Internet; and Abbate, Privatizing the Internet (eLearn)
- 4. Russell, "Rough Consensus and Running Code"; and Tao of the IETF
- 5. Shaiman, Political Economy of OSI (eLearn)
- 6. History of the WWW

| Week Five Sept. 29 and 30 | Regulation and Policy I: Antitrust | Weiser, Regulating Interoperability | Reading response 4 due |
|---------------------------------|---------------------------------------|---|---------------------------|
| | | | Book selection due |
| Week Six Oct. 6 and 7 | The Shallows I | Carr, <i>The Shallows</i> , beginning through page 114. | Reading response 5 due |
| Week Seven Oct. 13 and 14 | The Shallows II | Carr, <i>The Shallows</i> , page 115 to the end. | Reading response 6 due |
| Week Eight Oct. 20 and 21 | Online Communities | | Midterm exam due |
| | | 1. Facebook (<u>see links page</u>) | |
| | | 2. Whatever happened to <u>Second Life</u> ? | |
| | | 3. Twitter (readings TBA) | |
| | | 4. Reagle on Wikipedia | |
| | | 5. Why <u>Craigslist</u> is such a mess | |

| Week Nine Oct. 27 and 28 | Student Presentations I | | Book review due |
|----------------------------------|---|--|----------------------------------|
| Week Ten November 3 and 4 | Regulation and Policy II: Autonomy and Global Justice | Privacy: Selections from Nissenbaum, <i>Privacy in Context</i> International Development (readings TBA) Information Labor: <u>Lazonick</u> and Downey (eLearn) Information Technology and Health (readings TBA) | Reading response 7 due |
| Week Eleven Nov. 10 and 11 | Computer Ethics | 1. Nissenbaum, How Computer Systems Embody Values 2. Ensmenger, "Computers as Ethical Objects" 3. Selections from Johnson, Computer Ethics (eLearn) | Review essay bibliography due |
| Week Twelve Nov. 17 and 18 | The Hacker Ethic | Himanen, <i>The Hacker Ethic</i> , entire book. | Reading response 8 due |
| Nov. 24 and 25 | No Class - Thanksgiving Break | | |
| Week Thirteen Dec. 1 and 2 | Regulation and Policy III: Security and Intellectual Property | Lessig, <u>The Creative Commons</u> Browse http://creativecommons.org/ <u>Steal This Film II</u> Browse Schneier on Security | Reading response 9 due |

WeekStudent PresentationsReview essay dueFourteenIIDec. 8 and 9

Take Home Exam

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