Syllabus for
CSCI 494 Social and Ethical Issues in Computing
Spring 2013

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Office hours: M 3:15–5:15 p.m.
T 9:30–10:30 a.m.
WF 9:30–10:15 a.m.
I am typically in my office much more than the posted times, and you are welcome to stop by whenever my door is open. Check with me ahead of time if you want to be sure that I'll be there outside scheduled times.

Class meetings

T 1:15–3:05 p.m., Sci 181
Final meeting: 1:30–3:30 p.m. on Wednesday, May 8

On-line resources

Additional (and updated) course information will be available at the class page at

http://cs.wheaton.edu/~cgray/csci494/

I will e-mail you *at your college address* when there are major updates. Be sure that you frequently read mail sent there.

Description

CSCI 494. Social and Ethical Issues in Computing.
Study of the ways in which the computer and communications revolution is changing society. Develop an awareness of and sensitivity to the ethical issues that arise in computer science and related professions. Prerequisite: Senior standing in the major. (2 hours)

CSCI 494 is the capstone course for the computer science major; as such it is supposed to provide an opportunity to sum up your study of computing at Wheaton and how it relates to other disciplines you have studied and to your faith. Because this is a capstone course, you should be taking it near the end of your time at Wheaton: you should be close to completing both the computer science major and the general-education requirements. (If you have not taken one of the required courses in Philosophy or Christian Thought, in particular, you should take it this semster instead of this course.)

The way our capstone is defined by the catalog does not leave us much time for reviewing the discipline; we will instead focus on how computing and related technologies interact with humane concerns. In this class you will:

- develop a greater awareness of how computing (as well as technology more generally) interacts with non-technical concerns;
- identify the kinds of issues that are raised or shaped by information technologies;
- analyze specific issues at the intersection of computing and social concerns;
- articulate your own responsibilities from both a Christian and professional perspective.

This is not a typical computer science course: it will involve primarily reading, discussion, and writing. There will be no programming assignments. The level of your *prepared* participation in class will be the principal factor that determines how much you get out of this course.

Grading and assignments

Your grade will be based on:

Class participation (20%) The quality of your particpation is important. Your written responses to readings (see below) are included in this portion of your grade.

Leading a class discussion (10%) You will, with another student, be responsible for leading the discussion on one or two class days. Student-led discussion days are indicated by letters at the right in the schedule below; you will have an opportunity to sign up (or be assigned) at the third class meeting. Details will be provided separately.

Short essays (30%) A few short essays will be assigned during the term. These will typically be 1–2 pages in length. These can be informal, but should be organized well and reflect careful thought about the assigned topic. (Initial due dates are on the syllabus; topics will be distributed separately.)

Final paper (40%) Think of this as your take-home final: you are to write a 10–16 page paper on a topic related to the course. Details will be provided later.

All written work should be typed, neatly formatted, and double-spaced. Turn in hardcopy unless specifically instructed otherwise; you may print two-sided to save paper. For purposes of counting pages, use a 10–12 point font with 1-inch margins. Make citations in standard form (such as MLA or a common form supported by LaTeX/bibTeX), with the special case that you you may reference all provided articles and textbook selections with the bracket form shown below and on the class readings page.

You should keep a copy of all of the writing you do for this course, as a record of your thinking. That will be especially helpful toward the end of the semester. I strongly recommend that you you keep a logbook (journal) to track your thoughts during the semester.

Attendance

Because participation is such an important part of the course, there will also be a significant penalty for absences and late arrivals. Your late arrival would interfere with class for your fellow students; so attendance will be taken at the *beginning* of each class meeting, and you will not be counted present if you arrive late. (I suggest you plan to arrive a few minutes early.) You will be allowed up to two absences without penalty; for each subsequent absence your course grade will be penalized one-half letter per meeting. If you must miss, I can consider accommodating you only if you behave responsibly—including letting me know in a timely manner. If you have another obligation that interferes with your timely arrival, I expect you to keep me informed—just as you would an employer.

Other policies

Special circumstances and needs I will work with you if you have any kind of special need, provided you are responsible in letting me know in time to make appropriate arrangements. Accommodation of learning disabilities requires that they be documented with the Academic and Disability Services office *and* that you inform me in time for me to communicate with that office and make the needed arrangements.

Gender-neutral language By vote of the faculty in April 2012, all syllabi are required to include the following:

> For academic discourse, spoken and written, the faculty expects students to use gender inclusive language for human beings.

Assigned and additional readings

The textbook for this class is:

> Hester and Ford, eds., *Computers and Ethics in the Cyberage*, Prentice-Hall, 2001.

In the schedule below, there are readings from the textbook and other sources. Some of the additional readings are available online, in which case you will find a link in the online version of the readings list. I will also distribute a packet to cover the readings that are not readily available online.

The assigned readings should be considered a minimum. You will find links or references for additional readings in the online list, and I will continue to update the list during the semester. You should be looking for articles in regular news sources; feel free to point me (or the whole class) to anything interesting and relevant that you find. Look for sources of high quality; some blogs do qualify (I've included pointers to some), but most would not.

You are required to keep up with two additional online sources. The RISKS Digest publishes irregularly; it it most easily accessed via the online archive at

> http://catless.ncl.ac.uk/Risks/

You are responsible for all issues from 27(11) (dated 11 December 2012) through May. 3. You should check and read RISKS at least once a week. You should also track the Freedom to Tinker weblog from Princeton's Center for Information Technology Policy, at

> `http://www.freedom-to-tinker.com/`

Note that RSS feeds are available for both of these.

Watch for other events and news items during the semester, and plan to share them with the class.

Responses to readings In preparation for each class meeting that has assigned readings, you should write at least three questions, observations, or other responses to the readings (required or optional). Each item could be as brief as a single sentence. These should be emailed to me by noon the day before each class meeting, with the subject "CS 494 for *date*". I recommend that you include those thoughts as part of the notes you bring to class. You may also, if you wish, post your comments to the class wiki.

For some class meetings, you may be given specific questions or topics for which to prepare. When that is the case, you should turn in to me (either by email or hardcopy) a snapshot of your written preparatory notes by noon the day before class.

Initial schedule and readings

The anticipated schedule appears below. Readings should be completed *before* the indicated dates. I'll let you know when there are changes, which will be reflected in the online schedule.

Date	*Reading*		
Jan 15	[Lam88]	**Introductory matters**	
22	ch 6, [AJGP93], app A	**Professions, Responsibilities** *(Essay 1 due)*	
29	ch 2, ch 1, [Pos90]	**Fundamental Concepts** *(Sign up for leading class discussion.)*	
Feb 5	ch 5, [Nis01], [Mor11], [Web02]	*No class meeting* **Power and Wealth**	
12	ch 9[a], [And01], [Bow10]	**Property** Unauthorized use, abuse, and vicious programs	
19	[Les99], [Bar93], [Sta97], [Tou01]	Intellectual property	A:
26	[Rac75], [Ber00], *sources on class page*	**Privacy** Privacy and commercial interests.	B:
Mar 5	*sources on class page*	Privacy and government.	C:
Spring break			
Mar 19	ch 3, ch 12[b] [You11]	**Community**	D:
26	[Tal95], ch 4[c], [Car08]	**Persons**	E:
Apr 2	ch 4[d], [Ford11a-c]	Intelligence	F:
9	[Tur50], [Hal06]		
16	ch 10, [Joy00], *at least one of* [Forster] *or* [Everett]		
23		Presentation and discussion of your final papers.	
30	[Hoa81], [Tho84], [Wei95], [Wei86]	**Responsibilities**, revisited	
Wed., May 8	[Bas98], [Buc99]	Final thoughts. *(Final paper and last essay due.)*	

[a] Omit the first and last articles in chapter 9 (Forester and Morrison, Gozzi).
[b] In chapter 12, only the article by Kellner and Groothius is required.
[c] In chapter 4, read the articles by Gozzi and by Vonnegut for this week.
[d] In chapter 4, read the article by Zuboff for this week.

Assigned readings

[AJGP93] Ronald E. Anderson, Deborah G. Johnson, Donald Gotterbarn, and Judith Perrolle. Using the new ACM Code of Ethics in decision making. *Communications of the ACM*, 36(2):98–107, February 1993.

[And01] Ross Anderson. Why information security is hard: An economic perspective. In *17th Annual Computer Security Applications Conference*. Applied Computer Security Associates, 2001. Available from the author's page at `http://www.cl.cam.ac.uk/~rja14/`.

[Bar93] John Perry Barlow. Selling wine without bottles: The economy of mind on the global net, 1993. `http://www.eff.org/Misc/Publications/John_Perry_Barlow/HTML/idea_economy_article.html`.

[Bas98] Lionel Basney. Questioning "progress". *Books & Culture*, September/October 1998.

[Ber00] Hal Berghel. Identity theft, social security numbers, and the web. *Communications of the ACM*, 43(2):17–21, February 2000.

[Bow10] Mark Bowden. The enemy within. *Atlantic Monthly*, 305(5):72–83, June 2010. http://www.theatlantic.com/magazine/archive/2010/06/the-enemy-within/8098/.

[Buc99] Mark Buchanan. Trapped in the cult of the next thing. *Christianity Today*, 43(10):62–72, September 6 1999.

[Car08] Nicholas Carr. Is Google making us stupid? *Atlantic Monthly*, August 2008. http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/6868/.

[Hal06] Mark Halpern. The trouble with the Turing test. *The New Atlantis*, Winter 2006. http://www.thenewatlantis.com/publications/the-trouble-with-the-turing-test.

[Hoa81] C.A.R. Hoare. The emperor's old clothes. *Communications of the ACM*, 24(2):75–83, February 1981.

[Joy00] Bill Joy. Why the future doesn't need us. *Wired*, April 2000. http://www.wired.com/wired/archive/8.04/joy.html.

[Lam88] David Alex Lamb. Software engineering: An emerging profession? External Technical Report 88-233, Department of Computing and Information Science, Queen's University, September 1988. Available at http://www.cs.queensu.ca/TechReports/Reports/1988-233.pdf.

[Les99] Lawrence Lessig. What things regulate. In *Code and Other Laws of Cyberspace*, chapter 7, pages 85–99. Basic Books, 1999. local PDF.

[Mor11] Evgeny Morozov. Why the internet is a great tool for totalitarians. *Wired*, 19(1), January 2011. http://www.wired.com/magazine/2010/12/st_essay_totalitarians/.

[Nis01] Helen Nissenbaum. How computer systems embody values. *IEEE Computer*, 34(3):120;118–119, March 2001. PDF available from the author, at http://www.nyu.edu/projects/nissenbaum/papers/embodyvalues.pdf.

[Pos90] Neil Postman. Informing ourselves to death, 1990. http://www.eff.org/Net_culture/Criticisms/informing_ourselves_to_death.paper.

[Rac75] James Rachels. Why privacy is important. *Philosophy & Public Affairs*, 4(4):323–333, 1975. Accessible via the library (JSTOR) as http://links.jstor.org/sici?sici=0048-3915%28197522%294%3A4%3C323%3AWPII%3E2.0.CO%3B2-G.

[Sta97] Richard Stallman. The right to read. *Communications of the ACM*, pages 85–87, February 1997. http://www.gnu.org/philosophy/right-to-read.html.

[Tal95] Stephen L. Talbott. The machine in the ghost. In *The Future Does Not Compute: Transcending the Machines in Our Midst*, chapter 2. O'Reilly & Assoc., 1995. http://www.ora.com/people/staff/stevet/fdnc/ch02.html.

[Tho84] Ken Thompson. Reflections on trusting trust. *Communications of the ACM*, 27(8):761–763, August 1984.

[Tou01] David S. Touretzsky. Free speech rights for programmers. *Communications of the ACM*, 44(8):23–25, August 2001.

[Tur50] Alan Turing. Computing machinery and intelligence. *Mind*, LIX(236):433–460, October 1950.

[Web02] Arnd Weber. Enabling crypto: How radical innovations occur. *Communications of the ACM*, 45(4):103–107, April 2002.

[Wei86] Joseph Weizenbaum. Not without us. *ACM SIGCAS Computers and Society*, 16(2–3):2–7, Summer/Fall 1986. http://doi.acm.org/10.1145/15483.15484, or local PDF.

[Wei95] Mark Weiser. The technologist's responsibilities and social change. *Computer-Mediated Communications Magazine*, 2(4):17, April 1 1995. http://metalab.unc.edu/cmc/mag/1995/apr/last.html.