CS W4400: Computers and Society 3 credits (11/12/96 draft)

TT 1:10 - 2:25 Room 1127 Mudd
PROFESSOR Stephen H. Unger, OFFICE HOURS: Tu 3:30-4:30, We 10:30-11:30
(Or any time you can find me in my office--I'm generally around Tu-Th)
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REQUIRED TEXT: Huff & Finholt (eds), Social Issues in Computing, McGraw-Hill, 1994, (available in Papyrus Bookstore)

GRADING: TERM PAPER 40%, FIRST EXAM 10%, SECOND EXAM 10%, FINAL EXAM 30%, CLASS PARTICIPATION 10%.

Reading assignments are from text, or are on reserve in Eng. Libr (RES), or will be handed out in class (HO). Read BEFORE class.
(The following schedule is incomplete and tentative.)
We have a newsgroup located at columbia.fall.cs4400.

9/3 Tu 1. Introduction to course. Handling controversy.

9/5 Th 2. Privacy. Various meanings. Applications of concepts to various situations. Text: Ch. 11.

9/10 Tu 3. Privacy issues. HO: Spectrum article on Privacy (12/95) RES: CACM, 2 articles pp. 61-73. plus: CACM: TAP Debate

9/12 Th 4. Free expression. RES: Speech Restrictions (2 articles)

9/17 Tu 5. Censorship issues.

9/19 Th 6. Secrecy: Effects on technology. RES: Government Imposed Secrecy (article T&S Mag.)

9/24 Tu 7. Computers and military issues. Text: pp. 177-90 Parnas article.

9/26 Th 8. Computers and safety. Text: Critical Systems, pp, 127-176, RES: CACM Safety 11/95, p. 146

10/1 Tu 9. Liability issues, RES: Samuelson, CACM 1/93.

10/3 Th 10. Intellectual property. Text: pp. 491-96, 510-520. RES: Comp. Mag., Computer Law, CACM Look and Feel cas. GNU.

10/8 Tu 11. Continue on patents, copyrights, trade secrets. FIRST EXAM. [Term paper proposals due.]

10/19 Th 12. Computer crime. Text: pp. 193-211.

10/15 Tu 13. Ethics and Professionalism. Text: pp. 47-71

10/17 Th 14. Ethics codes. HO: IEEE Ethics Code. RES: Edgerton case.

10/22 Tu 15. Ethics, continued.

10/24 Th 16. Handling controversy in the workplace. RES: IEEE Guidelines.

10/29 Tu 17. Support for ethical professionals

10/31 Th 18. Ethics, continued.

11/5 Tu -- -NO CLASS-

11/7 Th 19. Computers and medical issues SECOND EXAM

11/12 Tu 20. Computers and standards. RES: two articles

11/14 Th 21. The internet: where is it going? RES: Inf. Superhighway

11/19 Tu 22. Computers as tools for people. RES:

11/21 Th 23. Computers and education (CACM 8/96)

11/26 Tu 24. Computers and the democratic process RES: Teledemocracy

11/28 Th -- --NO CLASS--

TERM PAPERS DUE DECEMBER 3

12/3 Tu 25. Computers and Work

12/5 Th 26. Engineering job crisis.

12/17/96 Tu 1:10-4:00. FINAL EXAM Cumulative, closed book.

Columbia University School of Engineering and Applied Science

Computers and Society- CS. W4400- Prof. S. H. Unger

SOME SUGGESTIONS FOR TERM PAPER TOPICS-9/12/96

The term paper should deal with a computers-and-society issue, rather than with a purely technical subject. Informal one-page proposals are due as indicated in the course schedule. These are to enable me to give you advice as to possible modifications of the topic, suggestions for sources, etc. Information may be obtained from books, periodicals or, preferably, from the results of your own investigations: site visits, personal interviews, phone calls, email, web sites, letters of inquiry (letters can be a problem due to time lags). The minimum length requirement is 2500 words.

You are expected to produce a paper reflecting your level of education. Apart from content, care should be taken to minimize bad grammar, typographical and spelling errors, which are distracting to the reader and which reflect badly on the writer. Papers replete with such errors will not be accepted. Use your spell checker. Papers should have appropriate headings indicating title, author, date, course. Pages should be numbered.

Your topic should be defined sharply enough so that you can do more than make sweeping, superficial statements. A term paper is not a book summary or a book review; it goes beyond simply summarizing a lot of material that you have read. It should include some of your own ideas and formulations, possibly resulting from information you have obtained directly from interviews etc. Following are suggestions for topics, NOT an all inclusive list:

1. Discuss newsgroups or web sites used for discussions. Consider problems such as the extent to which (if any) they should be edited, different ways of financing them, censorship, political aspects, future prospects.

2. How are computers being used, or considered for use in conventional elections? Discuss electronic polling on political topics.

3. Discuss the pros and cons of unions for computer scientists or engineers.

4. Develop fictitious scenarios illustrating various elements of a code of ethics for computer scientists or engineers.

5. Interview some working computer scientists or engineers (perhaps CU alumni) on the subject of ethical problems they have encountered.

6. Discuss the status of engineering ethics in one or more countries other than the U.S.

7. How does office automation affect the quality of the work done in various types of offices, and how does it affect the lives of office workers? You might interview office workers in several organizations, such as banks, insurance companies, etc.

8. Make a case for standardization in some area of computer science. Include a discussion of the down side.

9. How are computers being used now in education (you might focus on some specific level, such as elementary schools). Do some field studies. What ideas do you have in this area?

10. Explore the idea of monitored parole or the use of performance testing vs. drug testing. What is the present status of the technique? How is it working in various places at present? What are the future prospects? Discuss the pros and cons of the idea.

11. Consider the idea of licensing computer programmers. What are the pros and cons? How might such an idea be implemented. What are the opinions of various computer experts (or people who hire such experts) on this idea?

12. Consider various new or proposed telephone services. Discuss advantages & disadvantages, effects on privacy etc.