

Stanford University

## **STS 210:**

# **Ethics, Science, and Technology**

Tuesdays, 2:15-4:30

Spring Quarter, AY 2005-2006

**Classroom: Bldg. 60, Rm. 62N**

**Instructor:**

**Robert McGinn**

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### **I. Introduction**

Innovations in contemporary science and technology and attempts to implement them in Western societies are raising profound ethical issues that defy easy resolution. These issues challenge the applicability of traditional Western ethical thought and call into question our ability to devise realistic public policies that both promote societal well-being and are consonant with perennial Western ethical values and principles. In this class we will subject a number of ethical controversies spawned by recent or emerging technical advances to vigorous critical analysis. Controversies examined will involve issues of privacy, intellectual property, and equity of access in relation to developments in computers, information technology, and biotechnology; issues of individual liberty and public interest in relation to advances in human reproduction and life extension; issues of social responsibility, loyalty, and integrity in relation to the work of scientists and engineers; and issues of traditional individual rights, such as property, mobility, and freedom of inquiry and artistic expression, in relation

to construction, transport, and other technologies that transform human environments in controversial ways. We will read scholarly essays, policy proposals, and articles from magazines and newspapers on a number of such issues and, through probing discussion and rigorous debate, subject them to critical analysis. In so doing, students will acquire heightened awareness, portable skills, and ways of thinking that will enable them to come effectively to grips with unexpected issues of this type, ones that are sure to confront professionals and ordinary citizens with increasing frequency in the future.

There is a prerequisite for this seminar: either STS 110, another ethics course, or permission of the instructor.

## II. Course Readings

1. Robert McGinn, ed., STS 210 Course Reader (Stanford Bookstore Custom Publishing, 2006).
2. John Harris, On Cloning (Routledge: London and New York, 2004).

## III. Course Assignments

1. Writing

For the sessions of 4/25 and 5/9 each member of the seminar is to hand in at the close of class, a typed, double-spaced, very carefully edited paper 375-400 words long. The paper should be devoted to probing analysis of ONE noteworthy ethics-science-and-technology-related idea, issue, thesis, or argument raised in one (or more) of the readings assigned for that week. Be sure that the idea, issue, thesis or argument being probed is clearly identified/stated/defined/etc. Each paper **must** have a word count at the end. The instructor will feel free to call on class members and to ask them to expound on the topics they explored in their papers for that week.

2. Presentation

The seminar will culminate with in-class presentations (weeks 9 and 10). Each student is to select a specific, intellectually rich article published after January 1, 2006, in some scholarly journal or, if necessary, an intellectually serious magazine. (Newspaper articles are **not** acceptable.) The article must involve some noteworthy development in science and/or technology in society --

an innovation, experiment, project, discovery, invention, accident, trend, accomplishment, goal, etc. -- that the student believes raises -- **note the following adjectives carefully** -- *an intriguing, intellectually challenging, non-obvious, and non-hackneyed ethical issue* not specifically covered in the course (as indicated by the topics listed in the course syllabus). To maximize intellectual dividends, the issue chosen for analysis should be one about which the student has not yet made up her or his mind. Each student must run her or his idea for a presentation topic by the instructor by the end of the 6<sup>th</sup> week of the course, i.e., by May 12.

If, as is likely, the presentations wind up being solo efforts, each student is to make a well-organized, 15-minute, in-class presentation on the chosen ethical issue. Each presentation should...

-- convey the critical foreground and background factual aspects of the issue being explored; (note: this task may be rendered unnecessary or may be briefly done if the article distributed to seminar members covers this dimension adequately);

-- indicate why the student believes that an *ethical* issue is in fact raised in the situation described in the article and why he or she regards that ethical issue as intriguing and challenging;

-- illuminate the chosen ethical issue by subjecting it to *probing critical analysis*. In so doing, at least some of the following considerations should be addressed: key concepts involved in the debate over the issue, criteria explicitly or implicitly used to apply key concepts/terms in the case at hand, presuppositions held or principles invoked by various parties to the dispute, pertinent stakeholders and their respective protectable interests that merit being taken into consideration in the debate on the issue in question;

-- elaborate and critically assess the key arguments deployed by the disputants; and,

-- in light of the foregoing, indicate the student's own stance on the issue dispute in question *and why*. If applicable, extraction of suitable general morals (i.e., lessons) would be welcome.

Each student must provide a paper copy of, or a clickable link to, her/his article to the other seminar members, including the instructor. This must be done

*no later than the class meeting before the student's talk is scheduled* (i.e., week 8 or 9). Feel free to contact the instructor to see if you have selected an appropriate article, i.e., one in which a noteworthy ethical issue is in fact raised and one that, by virtue of the way the issue is covered in the article, lends itself to the kind of probing critical analysis required by the assignment. What is **imperative** for this assignment is that the student adroitly “unpack” the chosen ethical issue and persuade the class that the probing critical analysis he/she carried out on it contributes to reaching a compelling ethical position on the issue in question.

#### IV. Grading

- |                           |     |
|---------------------------|-----|
| 1. Two short papers:      | 20% |
| 2. In-class presentation: | 40% |
| 3. Class participation:   | 40% |

#### V. Calendar of Reading Assignments

Day   Date   Topic

Tu    4/04    Introduction to the Course

1. McGinn, “Ethics, Science, and Technology”
2. McGinn, “Ethical Issues Faced by Water Professionals: Some Tools For Analysis”
3. Stanford Daily, “Special Egg Donor Needed”
4. Pollack, “Biological Products Raise Genetic Ownership Issues”

Tu    4/11    Ethics and Information Technology I (Free Speech, Multi-Tasking, Societal Goods)

1. Spinello, “Ethical Reflections on the Problem of Spam”
2. Rosenbaum, “In Defense of the Delete Key”
3. Stockwell, “Phone Use Faulted in Collision”
4. McKinley, “New York Votes to Ban Phones Held by Drivers”
5. Cave, “Note to Drivers: Lose the Phone (and Lipstick)”
6. Verhovek, “Free Speech Debated in Suit Over Anti-Abortion Web Site”
7. Akdeniz, Case Analysis of *League Against Racism and Antisemitism (LICRA), French Union of Jewish Students, v. Yahoo! Inc. (USA) Yahoo France*, Tribunal de Grand Instance de Paris
8. Lessig, “The Internet Under Siege”

- Tu 4/18 Ethics and Information Technology II (Privacy)
1. Safire, "Stop Cookie Pushers"
  2. Piller, "Web Firms Have Sorry Record on Public's Privacy"
  3. Seglin, "Who Is Minding Your Own Business?"
  4. Rosen, "Silicon Valley's Spy Game"
  5. Saphir, "Ethics and Technology"
  6. Guernsey, "You've Got Inappropriate E-Mail; Monitoring of Office E-Mail Is Increasing"
  7. Rosenbaum, "In Defense of the Hard Drive"
  8. Lessig, "The Architecture of Privacy"
- Tu 4/25 Ethics and Biotechnology I (Human Reproductive Cloning)  
Special Guest: Professor John Harris, Manchester University, UK
1. Kass, "The Wisdom of Repugnance"
  2. Harris, *On Cloning*, ix-xii; 1-112; 143-145.
  3. S 790 IS: "Human Cloning Prohibition Act of 2001"
  4. HR 1644 IH: "Human Cloning Prohibition Act of 2001"
- Tu 5/02 Ethics and Biotechnology II (Human Embryonic Stem Cell Research)
1. Allen, "God and Science"
  2. Bush, "Remarks by the President on Stem Cell Research"
  3. Hurlbut, "'Implicit Moral Dignity' For the Embryo"
  4. Berg, "Use Cloned Embryonic Stem Cells to Cure Disease"
  5. Fletcher, "NBAC's Arguments on Embryo Research: Strengths and Weaknesses"
  6. Brock, "Is A Consensus Possible On Stem Cell Research? Moral and Political Obstacles"
- Tu 5/9 Ethics in Science:
1. Parnas, "SDI: A Violation of Professional Responsibility"
  2. Weiss, "Blood Test"
  3. Cohen, "Designer Bugs"
  4. Pollack, "Scientists Ponder Limits On Access to Germ Research"
  5. Johnson, "At Lawrence Berkeley, Physicists Say a Colleague Took Them For a Ride"
  6. Farah, "Emerging Ethical Issues in Neuroscience"
  7. Ritter, "Brain Scans May Be Used as Lie Detectors"

Tu 5/16 Ethics in Engineering

1. Morgenstern, "The Fifty Nine Story Crisis"
2. Brown, "[The Case of the Composite-Material Bicycle](#)"
3. Gleick and Lipton, "The Height of Ambition,"
4. Diamond, "The Disaster in Bhopal: Lessons for the Future"
5. McGinn, "Moral Responsibilities of Engineering Professionals"
6. McGinn, "Ethical Issues in Nanoscience and Nanotechnology: Reflections and Suggestions"
7. McGinn, "SEI Ethics and Nanotechnology Survey,"

Tu 5/23 Ethics and the Built Environment

1. McGinn, "Ethical Issues of the Built Environment"
2. NAACP et al., "Route 710 Environmental Justice Complaint"
3. Kozinski, CalTrans Rebuttal to Route 710 Environmental Justice Complaint
4. Richard Serra's 'Tilted Arc': excerpts from GSA Hearings
5. Goleman, "A High-Rise Is Not a Home For Children"
6. Egan, "Jet Skis vs. Peace on Islands in Battle of San Juan County"
7. McGinn, "Technology, Demography, and the Anachronism of Traditional Rights"

Tu 5/30 Student Presentations I

Tu 6/06 Student Presentations II

## VI. Publishing Particulars on Required Course Readings

### Session I

- McGinn, "Ethics, Science, and Technology" (no copyright)
- McGinn, "Ethical Issues Faced by Water Professionals: Some Tools For Analysis" (no copyright)
- Anonymous, "Special Egg Donor Needed," advertisement in STANFORD DAILY, 5/22/00, A8
- Pollack, "Patenting Life: Biological Products Raise Genetic Ownership Issues," *NYT*, 11/26/99, A1ff

## Session II

- Spinello, "Ethical Reflections on the Problem of Spam," *Ethics and Information Technology*, Vol. 1, 1999, 185-191
- Rosenbaum, "In Defense of the Delete Key," *The Green Bag*, 2D Series, Vol. 3, No. 4, Summer 2000, Internet reference: [www.greenbag.org/rosenbaum\\_deletekey.pdf](http://www.greenbag.org/rosenbaum_deletekey.pdf)
- Stockwell, "Phone Use Faulted in Collision," *Washington Post*, 12/6/00, B1
- McKinley, "New York Votes to Ban Phones Held by Drivers," *NYT*, 6/26/01.
- Cave, "Note to Drivers: Lose the Phone (and Lipstick)," *NYT*, 10/1/2005.
- Akdeniz, Case Analysis of *League Against Racism and Antisemitism (LICRA), French Union of Jewish Students, v. Yahoo! Inc. (USA) Yahoo France*, Tribunal de Grand Instance de Paris (The County Court of Paris), Interim Court Order, 20 November, 2000.
- Verhovek, "Free Speech Debated in Suit Over Anti-Abortion Web Site," *NYT*, 1/13/99, A1ff
- Lessig, "The Internet Under Siege," *Foreign Policy Magazine*, Nov./Dec. 2001.

## Session III

- Safire, "Stop Cookie Pushers," *NYT*, 6/15/00, A27
- Piller, "Web Firms Have Sorry Record on Public's Privacy," *LAT*, 3/20/00, C1
- Seglin, "Who Is Minding Your Own Business?" *NYT*, 3/19/00, § 3, p. 4
- Guernsey, "You've Got Inappropriate E-Mail; Monitoring of Office E-Mail Is Increasing," *NYT*, 4/5/00, C1
- Rosenbaum, "In Defense of the Hard Drive," *The Green Bag*, 2D Series, Vol. 4, No. 2, Winter 2001. Internet reference: [www.greenbag.org/rosenbaum\\_harddrive.pdf](http://www.greenbag.org/rosenbaum_harddrive.pdf)
- Saphir, "Ethics and Technology," Letter to Editor, *NYT*, 3/16/00, §G, 10
- Rosen, "Silicon Valley's Spy Game," *NYT Magazine*, 4/14/02, Sect. 6, 46ff
- Lessig, "The Architecture of Privacy," 2<sup>nd</sup> draft, 1998, © Lawrence Lessig, ref: [http://cyberlaw.stanford.edu/lessig/content/articles/works/architecture\\_priv.pdf](http://cyberlaw.stanford.edu/lessig/content/articles/works/architecture_priv.pdf)

## Session IV

- Kass, "The Wisdom of Repugnance," *The New Republic*, 6/2/1997
- Harris, *On Cloning* (Routledge, London and New York: 2004), ix-xii, 1-112;
- U.S. Senate Bill S. 790 IS: "Human Cloning Prohibition Act of 2001" (no copyright) <http://thomas.loc.gov/cgi-bin/query/z?c107:S.790>:
- U.S. House of Representatives Bill HR 1644 IH: "Human Cloning Prohibition Act of 2001" (no copyright) <http://thomas.loc.gov/cgi-bin/query/z?c107:H.R.1644>:

## Session V

- Allen, "God and Science," *Washington Post Magazine*, 10/15/2000, W08ff
- Bush, "Remarks by the President on Stem Cell Research," White House Press Release, August 9, 2001. [www.whitehouse.gov/news/releases/2001/08/print/20010809-2.html](http://www.whitehouse.gov/news/releases/2001/08/print/20010809-2.html)
- Hurlbut, "'Implicit Moral Dignity' For the Embryo," *Stanford Report*, October 2, 2002.
- Berg, "Use Cloned Embryonic Stem Cells to Cure Disease," *Stanford Report*, October 2, 2002.

- Fletcher, "NBAC's Arguments on Embryo Research: Strengths and Weaknesses," in Holland S, Lebacqz K, and Zoloth, L., (eds) *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy* (MIT Press: Cambridge, MA, 2001), 61-72.
- Brock, "Is a Consensus Possible on Stem Cell Research? Moral and Political Obstacles," *Journal of Medical Ethics*, Vol. 32, 2006, pp. 36-42.

#### Session VI

- Parnas, "SDI: A Violation of Professional Responsibility," *Abacus*, 4/2, 1987, 46-52
- Cohen, "Designer Bugs," *The Atlantic Magazine*, July/August 2002
- Pollack, "Scientists Ponder Limits on Access to Germ Research," NYT, 11/27/01
- Weiss, "Blood Test," *West Magazine (San Jose Mercury News)*, 10/15/95, 8ff
- Safire, "The But-What-If Factor," NYT, 5/16/2002 (OpEd piece)
- Johnson, "At Lawrence Berkeley, Physicists Say a Colleague Took Them For a Ride," NYT, 10/15/2002
- Chang, "On Scientific Fakery and the Systems to Catch It," NYT, 10/15/02
- Farah, "Emerging Ethical Issues in Neuroscience," *Neuroscience*, Vol. 5, No. 11, November 2002, 1123-1129.

#### Session VII

- Morgenstern, "The Fifty-Nine Story Crisis," *Journal of Professional Issues in Engineering Education and Practice*, Vol. 123, No. 1, Jan. 1997, 23-29, originally printed in *The New Yorker*, May, 1995.
- Anonymous, composite bicycle case (no copyright)
- Diamond, "The Disaster in Bhopal: Lessons for the Future," NYT,
- Gleick and Lipton, "The Height of Ambition," NYT, 9/8/02
- McGinn, "Moral Responsibilities of Professional Engineers: Empirical and Theoretical Approaches," unpublished ms. (no copyright)
- McGinn, "Ethical Issues in Nanoscience and Nanotechnology: Reflections and Suggestions," *Proceedings of NSF Workshop on Social and Ethical Implications of Nanoscience and Nanotechnology*, December 3-5, 2003" (no copyright)
- McGinn, "Ethics, Nanoscience, and Nanotechnology: Views of NNIN Users and Students" (no copyright)

#### Session VIII

- McGinn, "Ethical Issues of the Built Environment" (unpublished; no copyright)
- El Sereno Neighborhood Action Committee and El Sereno Organizing Committee, "Route 710 Gap Closure Project Environmental Justice Complaint against CalTrans" (3/31/95) (no copyright)
- R. Kozinski, CalTrans rebuttal letter to FHA re "Route 710 Gap Closure Project Environmental Justice Complaint against CalTrans," (7/14/95) (no copyright)
- Hitt, "The Storm in the Plaza," *Harpers*, July 1985, 27-33
- Goleman, "A High-Rise Is Not a Home For Children, the Experts Say," NYT, 9/10/1987
- Egan, "Jet Skis vs. Peace on Islands in Battle of San Juan County," NYT, 3/16/1996
- McGinn, "Technology, Demography, and the Anachronism of Rights," *Journal of Applied Philosophy*, Vol. 11, No. 1, Spring 1994, 57-70