

Philosophy of Technology 333

Professor Andrew Feenberg

Industrial society is an experiment with a brief past and an uncertain future. Other forms of human society--tribal and feudal societies--have proven their ability to survive over thousands of years. Our society is the first to base itself on artificial sources of power and mechanical means of production. In less than two centuries, this new form of society has transformed the globe and made the human race capable of realizing its highest ideals but also powerful enough to destroy itself.

What are the philosophical implications of these great transformations? To answer this question we must first of all investigate the nature of technology and attempt to understand how technological advance poses new dilemmas for the human race. This course will enter deeply into the social and technical background of the problems it considers to shed light on the nature of technological society.

Office hours are on Tuesday 5:00-6:00 in AH 4140. You might want to check to make sure. Tel. 858-459-0625 and during office hours, 619-594-2403. My email is feenberg@sdsu.edu and my web page address is www-rohan.sdsu.edu/faculty/feenberg. This syllabus will be posted on my web page.

TESTS: There will be four essay tests, a first test on Parts I-III, a second test on Parts IV-V, a third test Parts VI-VII, and a fourth test on the last regular day of class on Part VIII. There will be no final examination in this course.

Texts include: Volti, *Society and Technological Change*; Kipphardt, *In the Case of J. Robert Oppenheimer*, Feenberg, *Questioning Technology*;

Syllabus available in bookstore.

Assignments from the syllabus on the list below are followed by numbers in brackets that refer to page length. Note that assignments may not follow the exact order of the bookstore syllabus.

Reading Assignments

I. Introduction: What is philosophy of Technology? What are the different types of theories in this field? What is a "critical" approach to understanding technology?

Aug. 31, Sept. 5. Volti, chap. 1; *Questioning Technology*, preface, chap. 1.

II. Nuclear Weapons and the Social Role of Science: What responsibilities must technical experts assume for their creations? How well did the first generation of

nuclear experts handle their predicament? What is loyalty? Should the bomb have been dropped on Japan?

Sept. 7, 12. Volti, chaps. 13-14; Bernstein, "Four Physicists and the Bomb" [32]; Einstein Letter [2]; Szilard Petition [2]; *Science Panel Recommendations* [1]; *Franck Report* [12]; Stimson, "The Decision to Use the Atomic Bomb" [10].

Sept 14. Oppenheimer, "Atomic Explosives" [14]; *Report of the General Advisory Committee* [8]; *In the Case of J. Robert Oppenheimer*.

III. Technology and Ecology: What is the environmental crisis? Has it outdated traditional moral and political restraints on government? Must we now control population and/or plan industrial development to survive? How can we regulate industry to protect nature? What are the similarities and differences between nuclear and environmental politics?

Sept 19, 21. Volti, chap. 6; Hardin, "The Tragedy of the Commons" [13]; Commoner, "Science and the Sense of Humanity" [10]; Commoner, "Ending the War Against Earth" [5].

Sept. 26. *Questioning Technology*, chap. 3

IV. Technology and Culture: Is technology a neutral tool that any society can employ to further its ends, or does it involve specific cultural choices that may prove incompatible with the indigenous values of less developed countries? Can different and original paths of development emerge? Why has technological advance been accompanied by the deskilling of so many manual occupations in modern industrial societies? What does the history of deskilling show about the role of political power in determining technical development?

Sept. 28, Oct. 3. Volti, chap. 5; Sharp, "Steel Axes" [20]; Perrin, "Giving up the Gun" [5]
Oct. 5. Test 1 on classes through Sept. 26. (Does not include Sept. 28)

Oct. 10, 12. Volti, chaps. 2, 8-10; Hobsbawm, "The Machine Breakers" [10]; Ure, "The Philosophy of Manufactures" [9]; Taylor, "Scientific Management" [8]

V. Computers and Society: What social forces have influenced the evolution of computer applications? Does computer design reflect class power, bureaucratic rationality, the fantasies of users? Are technological advances determined by social causes? What is technological determinism?

Oct. 17. Volti, chap. 15-16

Oct. 19. Noble, "Social Choice in Machine Design" [32]

Oct. 24. "From Information to Communication" [28]

Oct. 26. Test 2 on classes from Sept. 28 to Oct. 24.

VI. Education and Medicine Today: What human dimensions of education and medical care are slighted in our technologized society? What are the rights of human subjects in medical experiments? Should more people participate in the latest medical advances, as some AIDS activists have recently claimed?

Oct. 31. "Online Education and the Choices of Modernity" [25]

Nov. 2, 7. Cousins, "Anatomy of an Illness (As Perceived by the Patient)" [5]; The Nuremberg Code [2]; Ramsey, "Judgment on Willowbrook" [4];

Nov. 9. Epstein, "Democratic Science? AIDS Activism and the Contested Construction of Knowledge" [29].

VII. Social Constructivism: What is the relation between the rational basis of modern technologies and their social background? Is design determined by technical or economic efficiency? How do social forces affect everyday devices? Can society control its technological future?

Nov. 14, 16. Pinch and Bijker, "The Social Construction of Technological Systems" [33]

Nov. 21. Volti, chap. 17

Nov. 28. *Questioning Technology*, chap. 4

Nov. 30. Test 3 on classes from Oct. 31 through Nov. 21. (Does not include Nov. 28)

VIII. Philosophy of Technology: Are technical decisions political? Can ordinary people usefully influence technical decisions? Is democratic control of technology possible?

Dec. 5. *Questioning Technology*, chap. 4

Dec. 7. *Questioning Technology*, chap. 5

Dec. 12. *Questioning Technology*, 6

Dec. 14. Test 4 on classes from Nov. 28 through Dec. 12.