

Computers, Information Ideology and American Culture since World War II

**Communication 320:
Topics in Media and Cultural History
Spring Quarter, 2006
Wednesdays, 2:15-5**

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Seminar Goals:

Over the last fifty years, computers and American society have undergone a mutual transformation. The huge machines that once lurked in the basements of government research laboratories have become the desktop models of home and school, and lately, gateways to the World Wide Web. The American economy has likewise become increasingly devoted to the production and circulation of information goods – and to the computerizing of industrial processes as well. According to scholars and pundits alike, these shifts in the technological and economic realms have spawned new forms of self and community, new ways of working and new, virtualized places in which to live and labor.

In this course, we will examine these claims with an eye to understanding the ways in which computers have become symbolic as well as material forces in American culture. We will begin with the assumption that there is no necessary relationship between information technologies and the social visions to which they have become attached. We will then explore the ways in which those relationships have been constructed within three distinct cultural paradigms: the “closed world” framework of the Cold War, the “open world” vision of the 1960s counterculture, and the “network society” paradigm of the Internet era we now inhabit. We will ask, how have shifts in our view of computing been related to shifts in our view of the ideal form of self and community, economy and government? What roles have computers and information played as symbols in American cultural life since World War II? How have those roles affected both American culture and digital technologies? And how have cultural shifts affected our vision of what digital technologies and an informed economy could become?

By the end of the course, you should have both an overview of the shifting politics of information technologies in American culture and a solid grasp of theories and methods for teasing out the complex relationships between technological and cultural change.

Readings:

We will frame our investigations by reading key scholarly accounts of the periods in question. Wherever possible after that, we will focus on original materials from the period. The recommended readings are designed to give you further resources for exploring the historical and/or theoretical dimensions of each week's work.

Required Texts:

Course Reader: Available at the bookstore.

Edwards, Paul N. The Closed World: Computers and the Politics of Discourse in Cold War America. Cambridge, MA: MIT Press, 1996

Wiener, Norbert. The Human Use of Human Beings: Cybernetics and Society. New York, N.Y.: Da Capo Press, 1988.

Theodore Roszak, The making of a counter culture: reflections on the technocratic society and its youthful opposition. Berkeley: University of California Press, 1969/1995

John Markoff, What the Dormouse Said. New York: Viking, 2005.

Fuller, R. Buckminster. Operating manual for spaceship earth. New York: Dutton, 1978.
(Out of Print: On Reserve or Order on line)

Wolfe, Tom. The electric kool-aid acid test. New York: Farrar Straus and Giroux, 1973.

Roszak, Theodore. From Satori to Silicon Valley: San Francisco and the American counterculture. San Francisco, Calif.: Don't Call It Frisco Press, 1986.

Castells, Manuel. The rise of the network society. Cambridge, Mass.: Blackwell Publishers, 2000.

Hakim, Bey. T.A.Z.: The Temporary Autonomous Zone, Ontological Anarchy, Poetic Terrorism. (Brooklyn, NY: Autonomedia, 1991).

Requirements and Expectations:

Class Discussion:

You'll need to come to class with the reading done and several questions in mind for discussion. Try to think of class meetings as a resource session in which you can get your questions answered and at the same time, learn what questions are driving your fellow students.

“Opening” a Text for Class Discussion: Due Date TBA

At some point in the course, you will be asked to “open” a text for class discussion. This is a more formal proposition than it may sound. To do it effectively, you will need to be able to summarize the key arguments of the text and suggest how they connect to themes in our ongoing discussion. You will also need to identify and propose key questions for subsequent discussion.

The Research Project:

Over the course of the quarter you will complete a research paper of 15-20 pages. The paper is designed to help you analyze core themes in the course, practice dealing with primary materials, and develop a background in the area that will allow you to pursue more in-depth research projects in the future. You may choose one of three models in building your project. All three require a mid-term proposal. One tip: it's always a good idea to check ideas you're thinking about with me or your classmates before developing a full proposal. It's also a very good idea to look ahead in the syllabus and get started early.

Model 1: Historical

Identify a group of people, texts or artifacts within any one of the three periods we've studied and analyze the roles played by information and/or information technology in organizing their perceptions of self, community, and work. Based on your analysis, how should we understand the relationship of information and information technology to processes of social and cultural change?

Model 2: Comparative

Choose a single concept that appears in each of the three periods under consideration (such as “virtuality” or “information”) and compare its deployment across the three periods. Based on your analysis, what accounts for the shifts in the meanings of this idea? What do these shifts tell you about the relationship of information and information technology to processes of social and cultural change?

Model 3: Your Call

I'm open to other questions and approaches for a final project. For your mid-term proposal, submit a detailed written proposal explaining the project, how it relates to the course, and why it is preferable to the other two options. As with the other models, be sure to include a literature review. (Note: This option is particularly appropriate for late-stage graduate students who may have substantial projects already under way and who may want to link issues in the course to those projects.)

The Midterm Proposal: Due May 10

Write a 4 to 5-page proposal for your project. The proposal should include:

1. A description of your object of study, its significance, and the fundamental issues or questions you want to address in your research. Do you have a novel approach or hypothesis? What is it?
2. A brief, tightly-focused review of the scholarly literature on your topic. This review should deal with the key works in your own narrow area, but should also deal with any important research on your topic carried out in other fields. You should explain how your work will relate to the works you cite.
3. A brief discussion of research methods. What kind of research methods will you use to answer the questions you've posed or to test your hypothesis? Textual analysis? Archival research? Interviews? Why are those the best methods for this case? What will they allow you to see? Do you need any special resources to complete your research? And are they available locally?
4. A timetable. What are the key parts of your project (research, writing, etc.) and by when will you have them completed?

The Final Paper: Due by 5 PM June 14

Due in hard copy in my mailbox in the Communication Department office.

Grading:

Class Participation (including opening a text): 30%

Midterm proposal: 20%

Final Project: 50%

PART 1: THE CLOSED WORLD: INFORMATION, TECHNOLOGY AND THE COLD WAR

Week 1 – April 5: Introductions

How has the symbolic identity of computers changed over the last fifty years? And how does that shift help us think about how technology and culture shape one another?

Week 2: April 12: Computing and the Cold War

Williams, Raymond. “Base and superstructure in Marxist cultural theory (rpt. from Williams, Raymond, Problems in materialism and culture. London:Verso, 1980, 31-49).” Rethinking popular culture: contemporary perspectives in cultural studies. Eds. Chandra Mukerji and Michael Schudson. Berkeley: University of California Press, 1991. 407-423.

Edwards The Closed World, Chapters 1-5

Recommended:

Carey, James W. “Technology and Ideology: The Case of the Telegraph,” Communication as culture : essays on media and society (New York: Routledge, 1992): 201-230

Thompson, John B. Ideology and modern culture: critical social theory in the era of mass communication. Stanford, Calif.: Stanford University Press, 1990.

Foucault, Michel. “Two lectures.” Culture/power/history: a reader in contemporary social theory. Eds. Nicholas B. Dirks, Geoff Eley and Sherry B. Ortner. Princeton: Princeton University Press, 1994: 200-221.

Week 3 – April 19: Cybernetics: Linking Machine Culture and Research Culture

Required Readings:

Langdon Winner, “Technologies as Forms of Life” in The Whale and the Reactor, pp. 3-18

Norbert Wiener, *The Human Use of Human Beings*. Ch’s 1-3, 5

Bowker, Geoff. “How to Be Universal: Some Cybernetic Strategies, 1943-1970.” *Social Studies of Science* 23 (1993): 107-27.

Galison, Peter. “The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision.” *Critical Inquiry* 21, no. Autumn (1994): 228-266.

Recommended Reading:

Hayles, *How We Became Post-Human* (esp. ch. 4 “Liberal Subjectivity Imperiled: Norbert Wiener and Cybernetic Anxiety”)

Peter Galison, “Trading zone: coordinating action and belief.” The science studies reader. Ed. Mario Biagioli. New York and London: Routledge, 1999. 137-160

Edwards, “The Machine in the Middle,” ch. 6 of The Closed World

Berkeley, Edmund Callis. *Giant Brains; or, Machines That Think*. New York,: Wiley, 1949.

PART 2: THE OPEN WORLD: INFORMATION, TECHNOLOGY AND THE COUNTERCULTURE

Week 4 – April 26: The Information Society Paradigm and the Informational Critique of Technocracy

Todd Gitlin, The Sixties, Preface and Introduction, pp.1-30.

Daniel Bell, “The social framework of the information society.” The computer age: a twenty-year view. Eds. Michael Dertouzos and Joel Moses. Cambridge, MA: MIT Press, 1979: 163-211

Theodore Roszak, The making of a counter culture: reflections on the technocratic society and its youthful opposition. Berkeley: University of California Press, 1969/1995

- Introduction, Preface, Chapters 1, 2, 7, 8

Recommended:

Herbert Marcuse, One dimensional man: studies in the ideology of advanced industrial society. Boston,: Beacon Press, 1964 (esp. chapters 1 & 2).

Reich, Charles A. The Greening of America New York: Random House, 1970. Chapters 1, 2, 4, 6, 9, 11

Daniel Bell, The Cultural Contradictions of Capitalism New York: Basic Books, 1976.

Gouldner, Alvin Ward. The future of intellectuals and the rise of the new class: a frame of reference, theses, conjectures, arguments, and an historical perspective on the role of intellectuals and intelligentsia in the international class contest of the modern era. New York: Oxford University Press, 1982.

Week 5 – May 3: Countercultural Cybernetics: Visions of Media and Technology

Roszak, Theodore. From Satori to Silicon Valley: San Francisco and the American counterculture. San Francisco, Calif.: Don't Call It Frisco Press, 1986.

Buckminster Fuller, Operating Manual for Spaceship Earth

Fred Turner, "Buckminster Fuller: A Technocrat for the Counterculture," forthcoming in *New Views on R. Buckminster Fuller*, edited by Hsiao-Yun Chu and Roberto Trujillo, Stanford University Press, 2006.

Recommended reading:

David Farber, "The intoxicated state/illegal nation: drugs in the sixties counterculture." Imagine Nation. Eds. Peter Braunstein and Michael William Doyle. New York: Routledge, 2002. 17-40

Braunstein, Peter, and Michael William Doyle. "Introduction: historicizing the American counterculture of the 1960s and '70s." Imagine Nation. Eds. Peter Braunstein and Michael William Doyle. New York: Routledge, 2002. 5-14.

Week 6 – May 10: Virtuality, Community and Technology in the Counterculture

Wolfe, Tom. The electric kool-aid acid test. New York: Farrar Straus and Giroux, 1973.

Recommended:

Hugh Gardner, The children of prosperity: thirteen modern American communes. New York: St. Martin's Press, 1978.

Jerome, Judson. Families of Eden: communes and the new anarchism. New York: Seabury Press, 1974.

Rabbit, Peter. Drop city. New York: Olympia Press, 1971.

Miller, Timothy. The 60s communes: hippies and beyond. Syracuse, NY: Syracuse University Press, 1999.

Week 7 – May 17: Making the Computer “Personal” and Computerization, Revolutionary:

Langdon Winner, "Do Artifacts Have Politics?" The Whale and the Reactor, pp. 19-39

Lawrence Grossberg, "Articulation and Culture," We Gotta Get Out of This Place, pp. 37-67.

John Markoff, What the Dormouse Said, selections.

Paul Ceruzzi, "The Personal Computer, 1972-1977," A History of Modern Computing, pp. 207-241

Recommended Readings:

Fred Turner, "How Digital Media Found Utopian Ideology: Lessons from the First Hackers' Conference" in David Silver, ed., *Critical Cyberculture Studies* (New York University Press, 2006)

Steven Levy, Hackers, Ch's 8-13, pp. 147-276

Nelson, Theodor H. Computer lib: you can and must understand computers now. Chicago: Nelson : available from Hugo's Book Service, 1974.

Bijker, Wiebe E., Thomas Parke Hughes, and T. J. Pinch. The Social construction of technological systems: new directions in the sociology and history of technology. Cambridge, Mass.: MIT Press, 1987.

Zuboff, Shoshana. In the age of the smart machine: the future of work and power. New York: Basic Books, 1988.

PART 3: THE NETWORKED WORLD

Week 8 – May 24: The Network Society

Manuel Castells, The Rise of the Network Society, Second Edition, Selections:

- Prologue – all (pp.1-27)
- Ch. 1 – pp. 28-100 (skim)
- Ch. 3 – pp. 163-188, 206-215
- Ch.4 – 216-223, 255-267
- Ch. 6 -- 407-429, 440-459
- Conclusion & Summary: 500-512

Recommended:

Abbate, Janet. Inventing the Internet. Cambridge, Mass: MIT Press, 1999.

Saxenian, AnnaLee. Regional advantage: culture and competition in Silicon Valley and Route 128. Cambridge, Mass.: Harvard University Press, 1994.

Frank Webster, "Information, Restructuring and Globalization" pp. 59-96 and "Informational Capitalism," in Theories of the Information Society (2nd ed.), pp. 97-123

Week 9 – May 31: Digital Commune or Digital Factory?

Manuel Castells, "Conclusion," The Power of Identity (1997 edition), pp. 354-362.

Howard Rheingold, "A Slice of Life in My Virtual Community," Whole Earth Review (1992); online at: <http://interact.uoregon.edu/MediaLit/mlr/readings/articles/aslice.html>

Fred Turner, "Where the Counterculture Met the New Economy: The Well and the Origins of Virtual Community," *Technology and Culture*, 2005 46:3, pp.485-512.

Recommended:

Tiziana Terranova, "Free labor: producing culture for the digital economy." Social Text 18.2 (2000): 33-58.

Kollock, Peter, and Marc A. Smith. Communities in cyberspace. London ; New York: Routledge, 1999.

Walter Powell, "Neither market nor hierarchy: network forms of organization." Research in Organizational Behavior 12 (1990): 295-336.

Week 10 – June 7: The Temporary Autonomous Zone

Hakim Bey, T.A.Z.: the temporary autonomous zone, ontological anarchy, poetic terrorism (Brooklyn, NY: Autonomedia, 1991).

- "Communiqués of the Association for Ontological Anarchy," *Communique* #7, pp. 43-46.
- "The Temporary Autonomous Zone," pp. 93-132.

F. Gregory Landowska and Dan Hunter, "The Laws of the Virtual Worlds," University of Pennsylvania Law School, Public Law and Legal Theory Research Series, Research Paper No.26, and Institute for Law and Economics, Research Paper No. 03-10, Version 1.12, May, 2, 2003. Available: Social Science Research Network, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=402860.

Recommended:

Liu, Alan. *The Laws of Cool: Knowledge Work and the Culture of Information*. (Chicago: University of Chicago Press, 2004).

Terranova, Tiziana. *Network Culture: Politics for the Information Age*. (London ; Ann Arbor, MI: Pluto Press, 2004).