

T610: NETWORKED SOCIETY

Class # 25972

Spring 2007

Instructor: Harmeet Sawhney

Office Hours: by appointment

Office: Radio & TV Center, Rm. # 325

Phone: 855-0954

E-Mail: HSAWHNEY

Course Meetings: Thursdays, 5:45-8:30 p.m., Rm. TV 169

COURSE DESCRIPTION

In this seminar we will examine the rise of the networked society and the physical infrastructure that undergirds it. We will start by discussing the social, economic, and cultural forces that set into motion the movement towards the networked society. We will then analyze how large-scale networks, the physical infrastructure of a networked society, are conceptualized and created. How metaphors shape our thoughts? How are investment decisions made when there is so much uncertainty about future demand? Why are the hierarchical networks getting transformed into flatter structures? After examining the infrastructure development process, we will discuss the new modes of social organization made possible by large-scale networks. Why are we seeing the advent of networked organizations and other networked configurations? How are these configurations different from the earlier ones? What is their impact on our everyday lives? We will approach these issues via readings from diverse disciplines -- economics, political science, public affairs, cultural geography, regional planning, cultural studies, history, information science, education, and communications. You are most welcome to make your own contribution to the brew!

READINGS

The specific articles for each class are listed in the calendar section of the course syllabus. This reading list will be modified if the class discussions move in directions beyond the areas selected for this particular seminar.

COURSE GRADE

The relative weights of the different components of the final grade will be as follows:

| | |
|---------------------|-----|
| Synthesis Paper 1 | 20% |
| Synthesis Paper 2 | 20% |
| Synthesis Paper 3 | 20% |
| Synthesis Paper 4 | 20% |
| Class Participation | 20% |

Synthesis Papers: There will be 4 synthesis papers (5-8 pages) in which you are expected to identify and develop themes that cut across the different readings. You are encouraged to build one synthesis paper over another so that your thoughts develop in a cumulative way over the semester. The papers will be due on the dates mentioned on the calendar.

Class Participation: Class participation is an essential element of a seminar class. The success of this seminar to a very large degree depends on the quality of contributions you make. Therefore a significant component of the overall grade has been assigned to class participation.

CALENDAR

| <u>Date</u> | <u>Topic & Readings</u> |
|-------------|---|
| Jan 11 | Introduction |
| Jan 18 | <i>Culture, Consciousness, and Technological Development</i> John—"The Postal System as an Agent of Change" John—"The Communications Revolution" Mumford—"Cultural Preparation" |
| Jan 25 | <i>Systems and Control</i> Beniger—"Control Revolution" Thompson—"Time, Work-Discipline, and Industrial Capitalism" Mulgan—"Networks and Post-industrial Societies" Dandeker—"Surveillance, Power and Modernity" |
| Feb 1 | <i>Systems, Control, and Consciousness</i> Zuboff—"The Laboring Body" Zuboff—"The Abstraction of Industrial Work" Forster—"The Machine Stops" Gleick—"Addicted to Speed" Carey—"Technology and Ideology: The Case of Telegraph" |

SYNTHESIS PAPER # 1: Due Monday, February 5th

Feb 8

Systems as Artifacts

de Gournay— "Telephone Networks in France and Great Britain"

Attali and Stourdze— "The Birth of the Telephone and Economic Crisis: The Slow Death of Monologue in French Society"

Stephenson— "'No One is Here' Telecommunications in the Soviet Union"

Sawhney— "The Public Telephone Network: Stages in Infrastructure Development"

Sawhney— "Information Superhighway: Metaphors as Midwives"

Feb 15

Metaphors, Consciousness, and Artifacts

Black— "Metaphor"

Black— "Models and Archetypes"

Streeter— "The Cable Fable Revisited: Discourse, Policy, and the Making of Cable Television"

Nord— "The Ironies of Communication Technology"

Wofsey— "Back to the Future"

Feb 22

Gow— "Spatial Metaphor in the Work of Marshall McLuhan"

Parsons— "Defining Cable Television: Structuration and Public Policy"

Uncertainty and System Development

Sawhney— "Excess Capacity and the Innovation Imperative: The Case of Cable"

Sawhney— "Dynamics of Infrastructure development: Metaphors, Political Will, and Creative Error"

SYNTHESIS PAPER # 2: Due Monday, February 26th

Mar 1 *Hierarchy and System Design*

Mueller— "The Switchboard Problem: Scale, Signaling, and Organization in Manual Telephone Switching, 1977-1897"

Huber— "The Geodesic Network"

Noam— "The Future of the Public Network: From the Star to Matrix"

Gilder— "The Rise and Fall of Television"

Berners-Lee— "Information Management: A Proposal"

Mueller— "Competing DNS Roots: Creative Destruction or Just Plain Destruction?"

Mar 8 *Collapse of Hierarchy*

Cleveland— "The Twilight of Hierarchy"

Bridges— "The End of the Job"

Reich— "From High Volume to High Value"

Reich— "The New Web of Enterprise"

Reich— "The Three Jobs of the Future"

Zuboff— "Managing the Informed Organization"

Schrage— "A Spreadsheet Way of Knowledge"

SPRING BREAK

Mar 22

Anarchy as an Organizing Principle 1

Giese— "From ARPAnet to the Internet: A Cultural Clash and Its Implications in Framing the Debate on the Information Superhighway"

Douglas— "Amateur Operators and American Broadcasting: Shaping the Future of Radio"

Sawhney— "Circumventing the Center: The Realities of Creating a Telecommunications Infrastructure in the USA."

von Auw— "Engineers and Economists"

Dober— "Circulation"

David— "The Evolving Accidental Information Super-Highway"

Mar 29

Anarchy as an Organizing Principle 2

Cats-Baril and Jelassi— "The French Videotex System Minitel: A Successful Implementation of a National Information Technology Infrastructure"

Schneider— "Evolution in Cyberspace: The Adaptation of National Videotex Systems to the Internet"

Brousseau— "E-Commerce in France: Did Early Adoption Prevent its Development?"

Danyi and Sukosd— "Who's in Control?: Viral Politics and Control Crisis in Mobile Election Campaign"

Sawhney— "The Slide Towards Decentralization: Clock and Computer"

SYNTHESIS PAPER # 3: Due Monday, April 2nd

Apr 5

Anarchy as an Organizing Principle 3

Lehr & McKnight— "Wireless Internet Access: 3G vs. WiFi"

Sawhney— "Wi-Fi Networks and the Reorganization of Wireline-Wireless relationship"

Johnstone—“Wiring Japan”

Associated Press—“Japan Reveals Plan to Catch Up with West in Technology”

Washington Post—“Steep Phone Fees Add Up for Internet Users in Japan”

Pollack—“Now its Japan’s Turn to Play Catch-Up”

Baker and Capell—“The Race to Rule Mobile”

Kunii and Baker—“Japan’s Mobile Marvel”

Tanikawa—“Phone Surfing for a Few Yen”

Barzilai-Nahon and Barzilai—“Cultured Technology: Internet and Religious Fundamentalism”

Agre—“Peer-to-Peer and the Promise of Internet Equality”

Lee—“‘No Artificial Death, Only Natural Death’: The Dynamics of Centralization and Decentralization of Usenet Newsgroups”

Apr 12

Networked Configuration: Organizations

Mintzberg—“The Essence of Structure”

Staw and Cummings—“Neither Market nor Hierarchy: Network Forms of Organization”

Leavitt—“Unhuman Organizations”

Sawyer, Crowston, Wigand, and Allbritton—“The Social Embeddedness of Transactions: Evidence from the Residential Real-Estate Industry”

Prakken—“Uncertainty, Information, and (Re)Organization”

Apr 19

Networked Configuration: Cities

Tarr, Finholt, and Goodman—“The City and the Telegraph: Urban Telecommunications in the Pre-Telephone Era”

Graham and Marvin—“Prologue” (Splintering Urbanism)

Graham and Marvin—"Introduction" (Splintering Urbanism)

Networked Configuration: Societies

Castells—"Prologue: The Net and the Self"

Castells—"Conclusion: the Network Society"

Agre—"Real-Time Politics: The Internet and the Political Process"

Apr 26

Values and System Design

Pool—"Communications for the less Developed Countries"

Samarajiva and Shields—"Telecommunications in the Third World: Value Choices in Resource Allocation"

Mumford—"The Highway and the City"

Carey — "Space, Time, and Communications: A Tribute to Harold Innis."

Mumford—"Authoritarian and Democratic Technics"

SYNTHESIS PAPER # 4: Due Monday, April 30th