Critical Theories for the Electric Society

Instructors

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INTRODUCTION

There is no single way to approach a spectrum of topics such as those we address in the following syllabus, so allow us to be distracted and creative. The goal of the course is simple: to examine, from the multiple perspectives of various "hard" (analytic) and "soft" (speculative) sciences, the implications of on-going revolutions in the technologies of communication on the organization of society. Three levels of analysis seem to mark our territory: the subject (human); the machine; and society. Subtopics include: Power, Knowledge, and Communication.

Since the seminal article written by Walter Benjamin on the coming age of mechanical reproduction—this was shortly after World War I—and its impact on the reception of works of art in their reproduced appearances, recording, storage, broadcasting, viewing, networking, and communication technologies have seen an explosive proliferation in the post-industrial world. Their effects have been studied in terms of the normative structures of societies; the increasing speed and capacity of data and information storage, communication, and retrieval; the rapidly shrinking "space" of the world into a "global village"; the economic shift from modes of production to modes of information; the decentering of the subject along the lines of its extensions (access to media); the linguistification and even codification (semiology) of the humanities; and much more. There is room in each of these topics for a deep specialization of academic disciplines and discourses, and on some campuses new academic programs (e.g. culture studies) have arisen to take advantage of the diverse range of univeristy expertise. Conservatives and Radicals (if those labels may be used) have both identified their points of entry and intervention, from the return to enlightenment in education (Bloom, Hirsch) to the deconstruction of divisions and established identities as critique (Jameson, Derrida).

In addition, science fiction (Cyberspace, the Net) and Hollywood (*The Six Million Dollar Man, Blade Runner, Robocop, Terminator,*) have both suggested interesting hybrids of the human and the machine and the world they would shape. We would like to include them in the analysis as well. As a whole, this course will emphasize the social dimensions of technologies and the issues they raise, drawing on the arguments and visions contained in the literature.

Over the course of our studies here at Stanford, both of us have noticed an interest on the part of many students (graduate and undergraduate) and faculty in a similar set of questions, which are covered in the topics comprising our syllabus. This seminar will allow us to bring together some of these students to begin a discussion of these issues centered on critical readings and questions. It is our hope that as a result, we will be able to identify ways in which different disciplines can make collaborative contributions to a richer understanding of what communication technology has done—and has yet to do—to our social fabric.

SOME EXAMPLES OF DISCIPLINES AND WHAT THEY HAVE AT STAKE

Art and Art History The impact of technologies on representation.

Sociology The roles played by technologies in the normative structures and the reproduction of society.

Political Science Relations of power and social differentiation maintained or subverted by communications technologies.

History The evolution of historical, political, economic, and social spheres alongside the advances made by technologies.

Comparative Literature The linguistification of critical discourses and the interest among literary critics in texts, discourses, language, speech, and representation as influenced by technologies.

Modern Thought and Literature The structuring of power relationships and questions concerning the emancipation or repression of the subject as represented in different philosophical and literary discourses.

Symbolic Systems The relationship between artificial and human symbol systems, between sociopsychological and logical models of how thinking is organized, and between the social and the rational description of action.

Computer Science The nature of the project to create 'artificial intelligence' and the viability of the computational model of human cognition.

Education The impact of technologies on access to information and the communication of meaningful content.

Communications The use of technologies to mediate and channel human communication.

Philosophy Questions concerning technology and its relationship to the human subject, its identity, and modes of experience.

Anthropology The implications for the study of the human in an environment increasingly characterized by the non-human and inorganic.

SYLLABUS

1. Towards a Post-organic Anthropology?

There is little doubt that communications technologies have extended the possibilities of human experience. The readings assigned for today suggest that their impact is nothing short of revolutionary. Is this "information age" indeed something entirely new in world history? Have our bodies ceased to be our homes, giving way to the much greater space and time it is possible to cover through networks, circuits, screens, radio waves, etc.? Do we continue to express the same human needs, desires, and hopes through our mediated forms of communication? Poster, Stone, and McLuhan do not all agree that we need a post-organic anthropology for a post-organic society. Their points of dispute establish essential guideposts for the remainder of the course.

LITERATURE

- McLuhan, Marshall. *Understanding Media*. pp. 45-56. ("Reversal of the overheated medium", "The Gadget Lover)
  In this article McLuhan suggests that a threshold has been crossed. The electrification of society marks for him a new era, one in which the medium is the message. He gives us the notion of the "break boundary," the point at which "the system suddenly changes into another or passes some point of no return in its dynamic processes." For McLuhan the "global village" we now live in is characterized by "the fact that everybody in the world has to live in the utmost proximity created by our electric involvement in one another's lives." It is suddenly a case not of exploding (i.e. colonial, expansionist, imperial) forms of society, but imploding (shrinking, accelerating) forms. McLuhan's argument is formidable.

- Poster, Mark. *The Mode of Information*. pp. 1-42. (Introduction, "The Concept of Postindustrial Society")
  Poster's introduction challenges views laid forth elsewhere by cultural critics that the information age demands an entirely new approach to the human subject and society. He agrees that there has been a significant shift towards the value of information (as power) since Marx's critiques of the uses of labor, but dismisses "totalizing" theories that otherwise disregard many other modes of social organization. His argument is important for us because it gives us room to draw on the contributions of university disciplines that don't agree with new totalizing theories.

- Haraway, Donna. *A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s*. in <u>Socialist Review</u>. 80: 65-107. 1985.
  Haraway's provocative analysis of the relationship between the social construction of the individual, the seductive power of the machine and the growing pervasiveness of technology brings her to posit that the definition of the

self is undergoing a radical transformation. The driving question is no longer what the difference is between human and computer; rather, the critical point inquiry is examining what constitutes the 'new', cyborg (cybernetic organism) self. The collapse of rigid walls between our conceptions of the organic and inorganic has given rise to a subject who/that exists in a bio-technological continuum void of comforting delineations between human and machine.

2. The Information Age

Information, as opposed to meaning, symbolic exchange, knowledge. These are the oppositions that appear and reappear in much of the literature. What is genuinely different about digital information? What prohibits us from granting information the possibility to serve as a means of exercising power and generating meaningful knowledge? Is there more to these arguments than nostalgia for the analogical society, or even for the mythical, primitive, and tribal? Why were the above authors, though they disagree over several fundamental points, place so much emphasis on this "new" age? Certainly information creates wealth, can serve as a means of exchange, is required to legitimate political power, etc. These questions must be addressed if we are to think about information as a conversion of the processes of speech and writing through networks, computers, screens, etc. Today's authors supply the course and situate some of the arguments concerning the relationships between power, information, language, the human subject, and society that we will encounter further on.

LITERATURE

- Baudrillard, Jean. *Selected Writings*. pp. 119-148; "Symbolic Exchange and Death".
  Welcome to the simulacrum. Baudrillard's brilliant theoretical construct provides a compelling focus for his critique of Marxist theory on the basis that contemporary culture can no longer be defined via the relations between modes of production; that relation has been overtaken by the relationship between signs and their lack of referential validity. This shift results from the ease and speed with which electronic technologies enables making and dissemination of reproductions, to the point that any concept of the original becomes lost and meaningless and the reproductions refer only to themselves. Materiality and referentiallity have become empty terms in a world where the image and the soundbite, and not objects or the individual subject, are primary, and where the logic of the computerized, digital code supersedes all other rationalizing structures. The essay, in its fatalistic stance towards authenticity and originality, challenges Walter Benjamin's notion of the uniqueness of the work of art; taken together, Benjamin and Baudrillard represent the beginning and one possible end of the examination of the reproductive capabilities of technology.

- Gibson, William. *Mona Lisa Overdrive*.
  An unwitting pioneer of the cyberpunk movement, Gibson's third novel explores several highly suggestive futuristic technologies. The novel's characters are able to communicate and "virtually move" inside "the Net," a matrix of computer programs containing the world's data. They record their experiences and save them as "simstims" (simulated stimulation). A hybrid of human and machine called biosoft is used as a medium of data storage; an individual's entire personality can be "uploaded" from storage and presented as a personality construction. This novel is a quick and very enjoyable read, and illustrates some of the more fantastic manifestations of our course topics.

- Benedikt, Michael (ed.). *Cyberspace: First Steps*. (Introduction) In introducing this anthology of essays related to cyberspace, Benedikt sets a provacative stage. He weaves together discussions of the nature of myth-making, the linguistic construction of reality, the mathemiticization of nature, and Karl Popper's objectivism to provide a socio-cultural framework within which to situate this new technology. Though Benedikt does not attempt to be a critic, his historical perspective and grasp of the various influences on the makers of virtual realities provides a valuable ingredient in understanding the field.

- McLuhan, Marshall. <u>Understanding Media</u>. pp. 1- 44 (cont.)

- DeLillo, Don. excerpt from <u>White Noise</u>, in <u>Storming the Reality Studio</u>, Larry McCaffery (ed.)
  A more elegant realization of Baudrillard's concept of the simulacrum would be hard to find.

3. The Human and the Machine

When the Turing Test was invented at mid-century, it was intended to allow humans to distinguish whether or not they were communicating with a machine or a human. Machines have improved significantly since the first days of the test, and it may not be long before the test is applied by machines to humans. Some argue that this day has already past. The distinction between human and machine is a prerequisite to determining how machines affect human communication. We tend to assume that there is a core to the human subject that is left untouched by the machine. Machines are under our control and do not reverse their influence upon us (as did HAL in 2001). Is this a safe assumption?

LITERATURE
- Baudrillard, Jean. *The Ecstasy of Communication* pp. 11-27
  This text describes the disappearance of the human subject in advanced capitalist societies. Wired to networks and cable television, the subject's "real" reality has disappeared under a glittery surface of incessant electric chatter, seduction, and

pornography. The author challenges us to find a subject capable of thought, of revolution, of love. Baudrillard goes beyond McLuhan, suggesting that "each individual sees himself promoted to the controls of a hypothetical machine, isolated in a position of perfect sovereignty, at an infinite distance from his original universe; that is to say, in the same postiion as the astronaut in his bubble. . ."

- Winograd, Terry, and Flores, Fernando. *Understanding Computers and Cognition.* pp. 83 - 106 ("Computers and Representation", "Computation and Intelligence")
  A pioneering effort at informing the computational study of ingelligence with the phenomenological approach towards being (as well as with the hypotheses of 'radical' biology), Winograd and Flores' book is a sober but powerful critique of current trends in computer design. Drawing on Heidegger, Gadamer, Maturana and others, they make the claim that 'intelligence', as it has been conceived by those trying to artificially create it, has been far too narrowly defined. The result is a concept of design that emphasizes only a small sphere of intelligent human activity (rational decision making and pattern recognition) at the expense of a many other spheres (community membership, contextual sense-making, linguistic game-playing, etc.). This work is important not only for its cogent analysis, but also as an example of the fruitfulness of interdisciplinary scholarship and the feasability of possessing a social conscience while on the cutting edge of technology.

- Bolter, Jay David. *Writing Spaces: The Computer, Hypertext, and the History of Writing.* pp. 171-193 ("Artificial Intelligence")
  Bolter's book, as a whole, deals with the new forms of representation and signing that the electronic machine affords us. This chapter provides a critical discussion about the analogy that is drawn between the symbol manipulation done by machines and the symbol manipulation done by humans. Bolter argues that there has been a fundamental conflation of the model (artificial intelligence) with what is being modeled (human intelligence), leading to mistaken claims about machine autonomy and the ontological status of symbols. His argument provides a sobering criticism of those who wish to understand the human through the computer.

4. Machine and Society

We saw above that machines and human subjects are possibly on converging paths. What of machines and society? Bourdieu provided us with one way of bringing together power and language in social contexts. Now we need to look more closely at society, and where we might fit the technologies we are interested in. At the social level our discussion branches out to include the ways in which technology changes the reproduction of social relations. In this, of course, communications technologies play a significant role. Historians have identified the stirrup,

gunpowder, and the steam engine as technologies that revolutionized the societies that gave rise to them. The telephone, television, and computer, would certainly command similar status. Will virtual reality be next? How do we know when a revolution is occurring? Does it even appear as a revolution?

LITERATURE

- Giddens, Anthony. *Constitution of Society*. pp. 162-185 ("Structure, System, Social Reproduction")
  This text lays out in extreme clarity the relationships between a society's various components. Giddens, a "structuralist" of sorts, likes to show how human subjects are always involved in the reproduction of their society. For this reason, his approach is particularly suitable to a study of how the uses of technology by people reflect the changing shape of society. Giddens develops two concepts in particular in this chapter: the enabling and constraining aspects of structure. These are important to our discussion in so far as we are concerned with changes occurring in society related to technologies of communication. Do these technologies expand or confine the possibilities of free human existence?

- Stone, Allucquere Rosanne. *Will the Real Body Please Stand Up?: Boundary Stories about Virtual Cultures*.
  At the same time that she traces the growth of cyberspace from email networks to virtual realities, Stone delineates the transformation of the social character of the subject as it exists in these new spaces. Concentrating on the fading boundaries between the self and the machine, hers is a critical project aimed at calling into question the assumptions which those who are constructing these spaces - mainly young, white males - are embedding in the new worlds they create.

- Shirley, John. "Wolves of the Plateau", in <u>Storming the Reality Studio</u>, Larry McCaffery, (ed.)
  If you are jacked into the Net, then the Net is jacked into you - and so our all the other Netriders. So much for personal space.

- Serre, Michael. <u>Hermes</u>

5. Technologies of Communication

The effect of changing technology on the nature of the communicative act are well documented in studies of the change-over from the manuscript to the printing press, the introduction of telephone and television, etc. The prospect of a closely networked world, wherein most communication takes place via the flow of electrons rather than the reading of printed paper, could be another such juncture. Crucial to understanding and speculating as to what would characterize this transformation, we need to examine the basis of human communication and its

relationship to machine communication, and determine which methods of analysis would be appropriate for grasping the nature of electronically mediated human communication. How will the electronic 'wrapping' (Poster) of a message effect its content? Does the plasticity of modern modes of communication and representation destroy all sense of originality? Do these technologies simply encourage talk about talk about more talk about more talk, or do they better our ability to talk about matters of 'substance'? Or, as Ulmer and Baudrillard would suggest, though in significantly different forms, is it indeed possible to engage in new modes of human communication through modern technologies?

LITERATURE

- Benjamin, Walther. "The Work of Art in the Age of Mechanical Reproduction." Written just as film was beginning to make a major impact on society, Benjamin's essay is a scathing condemnation of reproductive technologies (photography, film) and their impact on art. Moving out from a description of the 'aura' which the original of any piece of art posseses, and which any copies lack, he proceeds to show how reproductive technologies confuse quantity with quality, use with contemplation, image with presence. Worse yet, he argues, they encourage the abandoment of any useful conception of art and originality. The outcome is the substitution of politics for ritual, which in turn leads to the ultimate debased aesthetic - Fascism. Almost sixty years later, this essay continues to be pertinent to exploring questions of the interaction between art, technology and politics.

- Ulmer, Gregory. *Teletheory*. Introduction.
  In stark contrast to Baudrillard and Benjamin as well as most postmodern obsrvers of technology, Ulmer insists with fresh vision that the rise of new media technologies, particularly video and hypermedia, holds the key to a much needed revision in the nature of academic discourse. He argues that academia must acknowledge the pervasiveness of electronic media in our culture, its increasingly primary role in communication and formation of opinion, and join the rest of the world in the age of television. Relying on poststructuralists such as Derrida, on Freudian psychoanalysis and on the language of film and video, Ulmer makes a convincing case for the notion that video and other electronic technologies have already substantially altered the way in which the human mind perceive and understands reality. As one who believes the teacher must ground themselves in the discourse of the student, Ulmer constructs a videotext of his own.

6. **Electric Speech and Writing**

The previous week we surveyed the entire field of modern communication technologies and their general characteristics. This week we will focus down on electric speech and writing, asking whether the status of the printed and manually distributed word and the status of the electronically displayed and disseminated

word are two different things. Modern critiques of the text, the relationship between author and reader, and the legitimation of expression must be reconfigured to deal with texts which can be added to and subracted from by any number of readers, which exist as substantially different documents from one consumer to the next, and which no longer have the authority of a printed document. As we saw above, this shift in the technologies used causes further ruptures in the relationships between the subject and his/her communication, the author and the text, relations of power, etc.. We deepen our investigations here in a closer examination of specific communications technologies.

- Bolter, Jay David. *Writing Spaces: The Computer, Hypertext, and the History of Writing*. pp. 1-11, 147-168; Introduction and "Critical Theory and the New Writing Space." Bolter's introduction posits that the jump from the primacy of print in communication to the primacy of electronic texts will rival that of the jump from the handwritten manuscript to the printing press. He believes that the new technology will not only allow new forms of representation to come into being, but it will also catalyze new forms of community. In the chapter "Critical Theory and the New Writing Space", Bolter argues that the new electronic writing space embodies Derrida, Barthe, et al's project to deconstruct the text and question the role of the author, moving us beyond their critiques and generating a need for a new literary theory.

- Ong, Walther J. *Orality and Literacy*. pp. 1-15; "The Orality of Language". Since Heidegger's description of the language as the "house of being" it has been common to consider different languages as expressive of different ways of life. Ong takes the argument in a different direction, saying that substantially different technologies which form the medium for the transmission of language have a much more profound effect on one's mode of being. His discussion of the differences between orality and literatacy provide fertile ground on which to envision the differences between literacy and videocy (fluency in the language of dislocated, atemporal electronic communication.)

- Laidlaw, Marc. "Office of the Future (from <u>Dad's Nuke</u>)", in <u>Storming the Reality Studio</u>, Larry McCaffery, (ed.)
  In cyberspace, no one can hear you sceam.

- Descombes, Vincent. <u>Modern French Philosophy.</u> pp. 92-103

- Landow, George P. <u>Hypertext : The Convergence of Contemporary Critical Theory and Technology</u>, pp. 35-41, 162-175, 190-196.

7. Global Technologies: Betweeen Discipline and Emancipation

Since Orwell's *1984* we have been acutely aware that the power of technology can cut both ways: while it broadens one's ability to 'reach out and touch someone,' it also

makes it far easier to be touched, controlled and restricted. These are the notions of structure as "enbling" and "constraining" raised by Giddens in the fourth topic. Electronic mail, hypermedia, the establishment of a cyberspace—all increase both capabilities. But will the exposure to inspection outweigh the freedom to roam the networks? Problematic, too, is that these technologies have fallen into place in some areas of the world already, whereas other areas have no access to them. How will the "developed" nations use these technologies to regulate relations with "developing" nations? The need to homogenize information/communication/ media products in order to reach audiences in the millions leads to the weeding out of anything which is not mainstream, Western. How will other cultures fair against the increased pressure to appropriate the media orientation of those cultures which produce 75% of what is seen and heard? At stake is not simply the shape of technology, but the freedom of the subject and society.

LITERATURE

- Baudrillard, Jean. "The Masses" in <u>Selected Writings</u>, Mark Poster (ed.)

- Laurel, Brenda. "Art and Activism in VR", in *Verbum 5.2: Journal of Personal Computer Aesthetics.*
  As one of the pioneers responsible for bringing a sense of artistic design and aesthetics into the design of user-interfaces, Laurel has begun to have a deep impact on what sort of worlds software designers see themselves as making. In this article, she sharply criticizes male-centered, action-oriented visions which tend to regard improvement only in terms of increased sensory input, as not only reprehensibly narrow-visioned but also as depressingly unimaginative. She would like to see virtual reality (VR) and its related technologies used to "forge new connections between mind, body and spirit", to act as creative means of exploring reality rather than as a myopic tool for escaping it. The combination of her knowledge of the industry and her committment to taking artistic ownership of technology makes this article a vibrant exposition on how technology can be both constraining and liberating.

- Habermas, Jürgen. <u>The Philosophical Discourses of Modernity</u>. pp. 294-301, 309-326.

- Csicery-Ronay, Istvan Jr. "Cyberpunk and the Neuromanticism", in <u>Storming the Reality Studio</u>, Larry McCaffery, (ed.)
  Takes a little wind out of cyberpunks' sails, pointing out some of the inherent contradictions in the pontifications of the genre's leading lights.

- Burroughs, William S. "Mother and I Would Like to Know (from <u>The Wild Boys</u>)", in <u>Storming the Reality Studio</u>, Larry McCaffery, (ed.)
  What can you say about ol' Bill? Must be read to be believed.

8. Interdisciplinary Projects

This session will be dedicated to examining what we have learned about which disciplines have a stake in the subject and why. At the beginning of this proposal, we have created a list of the subjects that we believe are pertinent, and in what ways, as a starting point; hopefully, by this point we will have implicitly broadened that list and sharpened the hooks between the different discourses. Now will be the time to make those connections explicit, to generate ideas for supporting collaboration between members of the different disciplines and for discussing how the present parameters of academic disciplines may be affected by the proliferation of technologies throughout society.

LITERATURE

- Note: We expect to have a selection of readings provided by students for this topic. Their selections should highlight their own disciplines' approaches to the course's topics.