

The Anthropology of Information, Spring 2013

Anthropology 31928
Wednesday 2-5
SAC 4.116

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Abstract: This course is about semiotic technologies, with a focus on the digital and computational mediation of meaning. In some sense, it is about human-based significance in relation to machine-based sieving. We read classic works in media studies, cybernetics, computer science, semiotics, anthropology, and critical theory.

Requirements: Thirty percent of one's grade is dependent on class participation: students are expected to come to all classes, on time, having read the week's assignment, and being prepared to discuss it. Seventy percent of one's grade is dependent on a final essay. The topic of this essay will turn on the course readings, in relation to the student's particular interests, on a topic to be chosen in consultation with the professor.

Readings: While the course is grounded in classic readings on culture, communication, computation, media, and cognition, no prior expertise is required. And while a few of the texts make technical mathematical arguments, that will not be our focus. The starred readings (*) are mandatory; but lectures may make reference to the other readings; and students may draw on them for their own essays.

Some Background Readings: Condensed Histories of a few Relevant Semiotic Technologies (Basic and Classic)

Media in Ancient Empires (Innis)
Orality, Literacy, and Modern Media (Ong)
The Invention of Printing (Mumford)
The Rise of the Reading Public (Eisenstein)
The Optical Telegraph (Headrick)
Telegraphy—The Victorian Internet (Standage)
Time, Space, and the Telegraph (Carey)
The Control Revolution (Beniger)
How Media Became New (Manovich)
(See Communication in History, edited by Crowley and Heyer.)

Some Background Readings: Some Foundational Theories of Semiotics, Value, Desire, Reflexivity (Dense)

On a New List of Categories (Peirce)
Course in General Linguistics: Introduction (III-V), Part I (I-III), Part II (I-VI) (Saussure)
Genealogy of Morals: Books One and Two (Nietzsche)
Interpretation of Dreams (Freud)
Capital, Volume I: Part 1 (Marx)
(Assuming you have read parts of some of these texts at some point.)

1. Interaction, Communication, Meaning, Information, Language, Media, Techne

*Techniques of the Body (Mauss)
*On Alternating Sounds (Boas)
The Galaxy Reconfigured (McLuhan)
*Understanding Media: Part I (McLuhan)
*History of Communications Media (Kittler), www.ctheory.net/printer.aspx?id=45
*Gramophone, Film, Typewriter: Preface, Introduction, Typewriter (Kittler)

2. Friend/Enemy, Signal/Noise, Order/Disorder, Host/Parasite, Actor/Network, Entropy/Information (x2)

*Recent Contributions to the Mathematical Theory of Communication (Weaver)
*The Parasite: 1, 3, 7, 8, 10, 11, 12, 13, 14, 16, 17, 19, 21, 22, 23, 25, 27, 28, 29, 30, 31, 32, 34, 35 (Serres)
Form of Life (Agamben)
The Open: *Umwelt, *Tick, Poverty in World, The Open, Profound Boredom (Agamben)
The Concept of the Political: Sections 2-3 (Schmidt)
*Laboratory Life: The Creation of Order Out of Disorder (Latour and Woolgar)
Some Elements of a Sociology of Translation (Callon)
*Steps to an Ecology of Mind: Cybernetic Explanation, Form-Substance-Difference (Bateson)
*Purity and Danger: Secular Defilement (Douglas)

Feynman Lectures on Physics: Thermodynamics (Feynman)

3. Meaning and Information, Enclosure and Disclosure, Topic and Focus, Code and Channel (x2)

Certain Factors Affecting Telegraph Speed (Nyquist)

Transmission of Information (Hartley)

*Mathematical Theory of Communication: Introduction, Discrete System, Discrete Channel w/Noise (Shannon)

*Information, Mechanism and Meaning: 1-4, 6-7 (MacKay)

Cybernetics and the Origins of Information: Selections (Ruyer)

System of Logic: Book I, Chapter 2, Section 5 (Mill)

*New List of Categories and New Elements: Sections on Denotation, Connotation, Information (Peirce)

*Pragmatism in Retrospect, The Essentials of Pragmatism (Peirce)

*Syntax: Information Structure (5.0-5.2) (Van Valin and LaPolla)

Language and the Flow of Thought (Chafe)

Enclosure and Disclosure (Kockelman)

3.5 Cybernetics, Cyborgs, and So Forth: Some Background Reading

Machine Dreams: Cyborg Agonists, Some Cyborg Genealogies (Mirowski)

Post-Human: Prologue, Toward Embodied Virtuality, Contesting the Body of Information (Hayles)

New Philosophy for New Media: Introduction Between Body and Image, Framing the Digital Image (Hansen)

Influential Essays on Life, Information, and Thermodynamics (Slizard, Maxwell, Gibbs, Boltzman, Schrodinger)

Cybernetics (Wiener)

Man, Machine, and the World About, in NMR (Wiener)

From Newspeak to Cyberspeak: Cyberspeak (Gerovitch)

From Counterculture to Cyberculture (Turner)

The Nature and Plausibility of Cognitivism, in Having Thought (Haugeland)

4. Analog/Digital, Token/Type, Singularity/Replica, Real/Virtual, Mechanical/Non-Mechanical

*Language of New Media: What is New Media (Manovich)

*Parables for the Virtual: Introduction, On the Superiority of the Analog (Massumi)

*The Work of Art in the Age of Mechanical Reproduction (Benjamin)

Difference and Repetition: Chapter I (Deleuze)

New Philosophy for New Media: Introduction, On the Newness of New Media (Hansen)

*Peirce On Virtuality (Skagestad)

Interpretation of Dreams: Swatch on Virtuality (Freud)

Natural Histories of Discourse: Introduction and Chapter I (Silverstein and Urban)

*Having Thought: Analog and Analog (Haugeland)

5. Bridges, Code, Infrastructure, Channel, Institution, Network

Computer Networks: Chapter 1 (Tanenbaum)

*Speech Event (Jakobson)

*Duplex Categories (Jakobson)

*Infrastructure (Star)

*The Parasite: See Week 2 for Chapters (Serres)

Capital, volume II: Selections on Infrastructure (Marx)

Building, Dwelling, Thinking (Heidegger)

The Network Society: Introduction (Castell)

*Do Artifacts Have Politics (Winner)

Exploit: Section on Protocols (Galloway)

6. Selection and Significance, Sieving and Serendipity, Natural and Non-Natural Meaning

The Expression of Emotion in Man and Animals: Introduction, General Principles of Expression (Darwin)

*What Emotions Really Are: The Psychoevolutionary Approach (Griffiths)

Theory of the Leisure Class: Selections (Veblen)

Wonderful Life: Iconography of Expectation (Gould)

The Selfish Gene: Something on Natural Selection, Memes (Dawkins)

Theoretical Biology: Selections (Uexkull)

On Meaning-NN (Grice)

*Varieties of Meaning: Chapters 1-5 (Milligan)

Being and Time: Worldliness of World (Heidegger)

Ecology of Perception: Affordances (Gibson)
Silicon Second Nature: Introduction (Helmreich)
The Concept of Life (Canguilhem)

7. **Autonomy and Automata, Meaning and Mechanism, Interpretation and Computation (x2)**

Theory of Computation: Regular Languages (Sipser)
Theory of Computation: Context Free Grammars (Sipser)
Syntactic Structures (Chomsky)
*On Computable Numbers (Turing)
*On Computable Numbers: A Guide (Copeland)
*Code (Petzold)
Logic Machines (Peirce)
The Laws of Thought: Selections (Boole)
A Symbolic Analysis of Relays and Switching (Shannon)
8. **Natural and Artificial Languages, Interpretation and Compilation, Assembly and LISP (x2)**

*Recursive Functions of Symbolic Expression and Their Computation by Machine (McCarthy)
*Structure and Interpretation of Computer Programs: 1 (Abelson, Sussman, Sussman)
9. **Mediate and Immediate, Displacement and Distance, Symbol and Tool (x2)**

*Mind in Society: Tool and Symbol, Perception and Attention, Memory and Thinking, Internalization (Vygotsky)
Mind, Self, Society: Selections on Me and I, Symbol and Gesture (Mead)
Being and Time: Worldliness of World (Heidegger)
*The Relation of Habitual Thought and Behavior to Language (Whorf)
Theory of Affordances (Gibson)
*Design of Everyday Things: 1, 3, 4, 5, 6, 7 (Norman)
Footing (Goffman)
Metaphors We Live By: Selections (Lakoff and Johnson)
Understanding Natural and Artificial Worlds, The Psychology of Thinking, The Science of Design (Simon)
*Mind Embodied and Embedded, in Having Thought (Haugeland)
10. **Face, Interface, Metaphor, Persona, Action/Thought/Perception at a Distance (x2)**

*Language of New Media: Intro, Interface, Operations, Forms (Manovich)
New Media from Borges to HTML (Manovich)
*As We May Think (Bush)
Man-Computer Symbiosis (Licklider)
*Augmenting Human Intellect (Engelbart)
A File Structure for the Complex, Changing, Indeterminate (Nelson)
*A Conceptual Framework for Man-Machine Everything (Nelson)
*Computer Lib/Dream Machines: Selections (Nelson)
*Personal Dynamic Media, New Media Reader (Kay and Goldberg)
Alan Kay's Universal Media Machine (Manovich)
*Sketchpad (Sutherland)
In the Beginning Was the Command Line (Stephenson)