

INFO 6210 / COMM 6211: Information, Technology, and Society

Department of Information Science
Cornell University

Thursdays, 1:25-4:25 pm
Fall 2012
IS Seminar Room, 301 College Ave

Instructor: Steven Jackson
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Office hours: Thursdays, 12-1 pm
301 College Ave, Rm 104

(ver 8nov12)

OVERVIEW:

This doctoral level research seminar, a core requirement of the IS doctoral program, explores key theoretical and methodological concerns in the qualitative, critical, and social theoretical analysis of information. Our tools, theories, and methods will be drawn from key analytic traditions in information science and the interpretive social sciences at large – sociology, anthropology, history, communication, science and technology studies, and a range of allied fields. Through readings, discussion, and assignments (short and long), students will explore major and emerging theoretical frameworks in the social study of information, and enhance their methodological skills as critical qualitative analysts of information. Our collective long-term goal is to build a more solid, rigorous, and creative foundation for the interpretive and humanistic study of information by calling out promising work (new and old) across information science and the interpretive social sciences at large.

LEARNING OBJECTIVES:

By the end of *Information, Technology, and Society*, students will be expected to be able to:

- *Understand* and *apply* relevant social science theories and methods to problems and issues in the information field;
- *Design* and *conduct* innovative and effective programs of research around topics of individual interest in the critical interpretive analysis of information;
- *Understand* and *contribute to* key theoretical and methodological debates in the qualitative and interpretive study of information; and
- *Write* concise and effective literature reviews and reports of original qualitative research.

These learning objectives will be met through a combination of readings, lectures, discussion, and individual and small group assignments, as described below.

COURSE REQUIREMENTS:

Weekly reading notes	-- 20%
Book report and presentation	-- 20%
Group preparation, seminar leadership and participation	-- 20%
Final project, paper, and presentation	-- 40%

Weekly reading notes: For each of the content weeks (i.e., apart from final project presentations), students will be expected to produce approximately 2 single-spaced pages of reading notes that engage key arguments, insights, and findings of the assigned weekly readings. There is room for considerable formal variation here. Some students will elect to use these to produce concise summaries of key points and arguments. Others may use these to explore thoughts, questions, and concerns raised by the assigned pieces. Each of these strategies (or some combination) and several more could be appropriate; the main goal here is to use the reading note process to engage the readings in a more sustained and incisive way, while beginning to accumulate a record of notes and responses that will hopefully be of some use beyond the immediate confines of the course itself. Reading notes should be posted to the appropriate section of the course management site by no later than 11:30 a.m. on the day of the seminar. You are also encouraged to review the reading notes of other students before the start of seminar.

Book report and presentation: Each student will be asked *once* during the semester to prepare a book report and presentation covering a book-length text related to the weekly reading notes and/or broader themes of the course. These books are to be selected from the list of relevant texts following each weekly reading set, each of which represents texts that are important to the development of theory, history, or method in the critical interpretive study of information. The written form of the **book report** should be 1500-2000 words in length (that's around 5-6 pages double-spaced in most standard word processing fonts), and should do each of the following: a)

succinctly summarize or convey the author's main arguments, and how they go about making them; b) engage critically with those arguments (including pointing to particular strengths and contributions, along with potential limits or weaknesses, of the author's main points); and c) point to particular contributions or connections between the book and critical interpretive approaches to information science or communications research today). In addition, you will be asked to prepare a 15 minute conference-quality **presentation** that addresses the same three points; by way of calibration, I'd encourage you to allot 10 minutes to presenting key arguments and findings (recall that your classmates won't generally have read the book), and 5 minutes discussing limits, problems, and implications for IS scholarship. We'll likely allow 5 additional minutes for questions and discussion by the class. Your written review should be posted to the discussion section of the class blackboard site by no later than 9 p.m. of the day before the seminar. Other students are encouraged to read the review before class and bring in any questions or comments they may have.

Group preparation and seminar leadership: Each student (working in groups of 2-3) will be responsible for introducing and opening discussion of *two* of the weekly reading sets (i.e., twice during the term). Groups will have three primary responsibilities:

1. posting to the discussion section of the class courseware site a set of questions and keywords around the weekly readings that will help guide our discussions;
2. producing a 2-3 page (single-spaced) thought piece that pulls out what you as a group find most interesting, useful, noteworthy, or provocative about the readings in question. These shouldn't be a simple summary (though you can do some summarizing); rather, there should be some organizing principle(s) or question(s) that can ground, guide, and provoke our group discussions. The thought piece should be posted, along with your questions, to the courseware site by no later than 9 pm on the day immediately preceding the seminar. (Nb: during weeks you are leading seminar discussions, you are NOT required to produce individual reading notes in addition).
3. introducing the readings and topics in class (you may draw on the questions and thought piece in doing so). Groups will be *strictly limited* to 15 minutes max for this. The goal here is to prime the pump for discussion, not give an exhaustive blow-by-blow account of the readings we've all just completed (though some reference back to key themes and passages may be helpful).

Final paper: Each student will be required to produce a 15-20 page (double-spaced) final paper connecting to the theoretical and/or methodological interests of the course. There is obviously (and intentionally!) considerable room for choice here, and students are strongly encouraged to consult with me as early as possible in developing a topic. By no later than the Nov 8th class, I'd like to see a formal proposal for the final paper which includes: a 1-2 paragraph description of the main argument or question of the paper; an outline of the anticipated structure and sequence of the paper; a description of the empirical evidence (if any) you plan to use; and a list of 5-10 published sources you plan to cite or draw on in making your argument. In addition to my comments, you'll be asked to submit your proposal to three other students for additional peer feedback. You'll get (and give) feedback on the proposals in a class workshop during the Nov 15th class.

Finally, you will be *invited* to precirculate a draft of your paper and *required* to prepare a 10-15

minute presentation of the project sometime in the final two class meetings of the term (at which time you'll receive additional feedback both from students and from me). The in-class presentation should be conference-quality, outline key arguments of the paper, main theoretical or empirical materials you're engaging, the motivation or core interest of the paper (why do you care about this topic?) and can include acknowledgement of any limits, problems, or open questions still facing your work on the topic. Final papers will be due, in both paper and electronic form, by 5 pm on Monday, Dec 17th. Per standard university guidelines governing plagiarism and academic honesty, all work for the course is expected to be original or appropriately acknowledged.

General seminar participation: This is a serious and demanding graduate research seminar, and all students are expected to arrive on time and thoroughly prepared. Per conventions of work in the qualitative social sciences, there is also a significant reading load, which you should be prepared for (for those struggling, I'll try to provide some reading tips and strategies that may help). Failure to keep up with readings, missed classes, routine lateness, or lack of preparation undermines the quality of the seminar in general – that's unfair to your colleagues, and may negatively impact your grade. If you know in advance that you won't be able to attend a session, please let me know via email or in person. If you're struggling with the course in any way (beyond the normal and healthy struggles that come naturally with graduate level materials), please come see me as early as possible in the term and we'll talk about strategies, workarounds, and possible accommodations to help you.

On method: You'll note that there are no separate methods assignments listed as part of the course, nor are there any stand-alone texts discussing methods and methodology in a separate way. But that doesn't make this a 'pure theory' class (in the sense that we somehow don't care about the manner in which the arguments, concerns and empirical cases that frame the class have been arrived at and supported). Methods come into the course in at least four specific ways that we'll pay careful attention to. The first is that several of the key readings in the class (at least one per week and often more) represent leading empirical studies in the critical/interpretive IS space, many of them produced by some of the field's most careful and thoughtful methodologists. The second is that in engaging the readings each week, both in discussion and in the reading notes, we'll be asking ourselves (and each other) the question: "How is it possible to know that?" (I get this from Michel Foucault, but any serious scholar from any tradition of IS work will ask some version of this question about their own work and that of their colleagues). What are the "conditions of possibility" that support and give meaning to the claims of the author(s)? How do they go about building evidence and support for their ideas? Every reading note you produce for the class should include at least some attention to this question (though you should note that not all traditions of IS scholarship wear their methods on their sleeves in the form of stand-alone methods sections). Third, in at least a couple of instances, we'll spend some time reverse engineering completed papers, connecting back from published form to the original study designs, basic data, insights, mistakes (!), and field experiences that produced them; it's easiest to do this with paper's I've been intimately connected with, which is one of the main reasons I include a couple of my own papers on the syllabus). Finally, in your final paper for the class, you are encouraged to bring at least some elements of original empirical fieldwork into your argument (though given competing demands on your time in this and other courses, you are NOT required to conduct a full-blown ethnographic or historiographic case study). I'll talk more

about this as the class goes on, and work one-on-one with each of you on a case-by-case basis to provide methodological advice more tailored to individual research interests and problems. I'll also share some general methods sources that I find helpful (though in general I find separate 'methods texts' a bad and suboptimal way to learn how to *really* do research (if you'd like the rant, ask me sometime about the problem of 'method as a second language' as opposed to more naturalistic or apprentice-based modes of learning).

Academic integrity: As Cornell graduate students, you should be aware of and careful about issues of academic integrity. Most such issues I've encountered in past come from students being unaware of the specific requirements of academic integrity at Cornell. Some examples of this include:

- Not knowing how to properly cite or use non-academic on-line sources (blogs, list-servs, etc.), informal sources such as another student's comments in class, or another person's ideas (as opposed to their words);
- Not being aware that when doing literature reviews that close paraphrasing of someone else's text (without attribution) is considered a form of plagiarism;
- Coming from cultural or disciplinary contexts where it is considered more appropriate to use an expert's words to express an idea than one's own.
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I'm required by the university to prosecute such violations when they come up. I'd therefore strongly encourage you to take Cornell's (brief) on-line tutorial on how to avoid unintentional plagiarism if you have not done so already. I'd particularly encourage this for students whose primary education was at a non-US institution, as well as students who come from a substantially different disciplinary background than the social sciences and humanities (art, law, journalism, computer science, etc.) You are responsible for understanding what constitutes a violation of academic integrity at Cornell. If you have any questions, ask me! And when in doubt, cite!

WEEKLY SCHEDULE

WK 1: INTRODUCTION and OVERVIEW (Aug 23rd)

No assigned readings. Introduction and overview of the course.

WK 2: INFORMATION AND SOCIAL CHANGE: CULTURE, COGNITION, LITERACY (Aug 30th)

Michael Tomasello, *The Cultural Origins of Human Cognition* (Harvard University Press: Cambridge MA, 1999), pp 1-93.

Walter Ong, "Some Psychodynamics of Orality," and "Writing Restructures Consciousness," in *Orality and Literacy* (Routledge: New York, 1982), pp 31-114.

WK 3: INFORMATION AND SOCIAL CHANGE: PRINTING AND PRINT CULTURE (Sep 6th)

Elizabeth Eisenstein, "Defining the Initial Shift: Some Features of Print Culture," in *The Printing Press as an Agent of Change: Communications and Cultural Transformation in Early-Modern Europe* (Cambridge University Press: Cambridge, 1979), pp 43-159.

WK 4: INFORMATION AND SOCIAL CHANGE: COMPUTING AND COMPUTERIZATION (Sep 13th)

Paul Edwards, "The Closed World: Systems Discourse, Military Policy and Post-World War II US Historical Consciousness," in Les Levidow and Kevin Robins, eds. *Cyborg Worlds: The Military Information Society* (Free Association Books: London, 1989), pp 135-158.

Rob Kling, "Computerization and Social Transformations," *Science, Technology and Human Values* 16:3 (1991), pp 342-367.

Plus one of:

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

Fred Turner, "Burning Man at Google: A Cultural Infrastructure for New Media Production," *New Media & Society* 11:1-2 (2009), pp 73-94.

** nb: no class Thursday, Sept 20th (Steve in DC) – class will be made up later in term) **

WK 5: NETWORKS AND INFRASTRUCTURE (Sep 27th)

Bruno Latour, "Technology is Society Made Durable," in John Law, ed. *A Sociology of Monsters: Essays on Power, Technology, and Domination* (Routledge: London, 1991), pp 103-131.

Madeleine Akrich, "The De-description of Technical Objects," in Wiebe Bijker and John Law, eds. *Shaping Technology / Building Society: Studies in Sociotechnical Change* (MIT Press: 1992), pp 205-224.

Susan Leigh Star and Karen Ruhleder, "Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces," *Information Systems Research* 7:1 (1996), 111-134.

Additional texts:

Geof Bowker and Leigh Star, *Sorting Things Out: Classification and its Consequences* (MIT Press: Cambridge MA, 1999).

Thomas Hughes, *Networks of Power: Electrification in Western Society 1880-1930* (Johns Hopkins University Press: Baltimore MD, 1993).

Paul Edwards, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming* (MIT Press: Cambridge MA, 2010).

WK 6: WORK AND COLLABORATION (Oct 4th)

Christian Heath and Paul Luff, "Collaboration and Control: Crisis Management and Multimedia Technology in London Underground Line Control Rooms," *Journal of Computer Supported Cooperative Work* 1:1 (1992), pp 24-48

Susan Leigh Star and Anselm Strauss, "Layers of Silence, Arenas of Voice: The Ecology of Visible and Invisible Work," *Computer Supported Cooperative Work* 8 (1999), 9-30.

Gina Neff, "The Changing Place of Cultural Production: The Location of Social Networks in a Digital Media Industry," *Annals of the American Academy of Political and Social Science* 597 (2005), pp 134-152.

Additional texts:

Shoshana Zuboff, *In the Age of the Smart Machine: The Future of Work and Power* (Basic Books: New York, 1988).

David Stark, *The Sense of Dissonance: Accounts of Worth in Economic Life* (Princeton University Press: Princeton NJ, 2011).

Stephen Barley and Gideon Kunda, *Gurus, Hired Guns, and Warm Bodies: Itinerant Experts in a Knowledge Economy* (Princeton University Press: Princeton NJ, 2006).

WK 7: ARTIFACT, SYSTEM, AND ACTIVITY (Oct 11th)

Edwin Hutchins, "How a Cockpit Remembers Its Speeds," *Cognitive Science* 19: 265-288 (1995).

Yrjo Engestrom, "When is a Tool? Multiple Meanings of Artifacts in Human Activity," in *Learning, Working and Imagining: Twelve Studies in Activity Theory* (Orienta-Knosultit Oy: Helsinki, 1990).

George Furnas, "Design in the MoRAS," in John Carroll, ed. *Human-Computer Interaction in the New Millennium* (Addison Wesley / ACM Books, 2001).

Additional texts:

Lev Vygotsky, *Thought and Language* (MIT Press: Cambridge MA, 1986 (orig. 1934)).

James Wertsch, *Mind as Action* (Oxford University Press: New York, 1998).

Victor Kaptelinin and Bonnie Nardi, *Acting With Technology: Activity Theory and Interaction Design* (MIT Press: Cambridge MA, 2006).

WK 8: ETHNOGRAPHIES OF/FOR DESIGN (Oct 18th)

Mark Ackerman, "The Intellectual Challenge of CSCW: The Gap Between Social Requirements and Technical Feasibility," *Proceedings of the Computer-Human Interaction (CHI) Conference*, 2000.

Paul Dourish, "Implications for Design," *Proceedings of the Computer-Human Interaction (CHI) Conference*, 2006.

Katy Boehner Janet Vertesi, Phoebe Sengers and Paul Dourish, "How HCI Interprets the Probes," *Proceedings of the Computer-Human Interaction (CHI) Conference 2007*, pp 1077-1086.

Andy Crabtree, Tom Rodden, Peter Tolmie and Graham Button, "Ethnography Considered Harmful," *Proceedings of the Computer-Human Interaction (CHI) Conference 2009*, pp 879-888.

Additional texts:

Carl DiSalvo, *Adversarial Design* (MIT Press: Cambridge MA, 2012).

Paul Dourish and Genevieve Bell, *Divining a Digital Future: Mess and Mythology in Ubiquitous Computing* (MIT Press: Cambridge MA, 2011).

WK 9: SELF AND SOCIAL ORDER: ROLES, PERFORMANCE, AND DISCIPLINE (Oct 25th)

Erving Goffman, "Self-Presentation," "The Self and Social Roles," "The Mortified Self," and "Social Life as Drama," in *The Goffman Reader*, eds. Charles Lemert and Ann Branaman (Blackwell: Oxford, 1997), pp 21-26, 35-44, 55-72, and 95-108.

Michel Foucault, "The Means of Correct Training," and "Panopticism," from *The Foucault Reader*, ed. Paul Rabinow (Pantheon Books: New York, 1984), pp 188-213.

Sonia Livingstone, "Taking Risky Opportunities in Youthful Content Creation: Teenagers' Use of Social Networking Sites for Intimacy, Privacy, and Self-Expression," *New Media & Society* 10:3 (2008), pp 393-411.

Additional texts:

Tom Boellstorff, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* (Princeton University Press: Princeton NJ, 2008).

Ian Bogost, *How to Do Things With Videogames* (University of Minnesota Press: Minneapolis, 2011).

Sherry Turkle, *Alone Together: Why We Expect More From Technology and Less From Each Other* (Basic Books: New York, 2010).

WK 10: ENGAGING OBJECTS: MAKING, USING, FIXING (Nov 1st)

Matt Ratto, "Critical Making: Conceptual and Material Studies in Technology and Social Life," *The Information Society* 27:4 (2011), pp 252-260.

Daniela Rosner, "The Material Practices of Collaboration," *Proceedings of the Conference on Computer-Supported Cooperative Work* 2012.

Steven J. Jackson, "Rethinking Repair" (MS: forthcoming, MIT Press, 2013).

Steven J. Jackson, Alex Pompe, and Gabriel Krieshok, "Repair Worlds: Maintenance, Repair, and ICT for Development in Rural Namibia," *Proceedings of the Conference on Computer-Supported Cooperative Work* 2012.

Additional texts:

N. Katherine Hayles, *How We Became Post-Human: Virtual Bodies in Cybernetics, Literature, and Informatics* (University of Chicago Press: Chicago, 1999).

Ian Bogost, *Alien Phenomenology, or What It's Like to Be a Thing* (University of Minnesota Press: Minneapolis, 2012).

Steve Benford and Gabriella Giannachi, *Performing Mixed Reality* (MIT Press: Cambridge MA, 2011).

WK 11: TECHNOLOGY AND PRIVACY: THEORY, PRACTICE AND POLICY (Nov 8th)

Helen Nissenbaum, *Privacy in Context: Technology, Policy, and the Integrity of Social Life* (Stanford University Press: Stanford, 2010), pp 129-185.

Federal Trade Commission, *Protecting Consumer Privacy in an Era of Rapid Change: Recommendations for Businesses and Policymakers*. March 2012.

Additional texts:

Daniel Solove, *Understanding Privacy* (Harvard University Press: Cambridge MA, 2008).

Joseph Turow, *The Daily You: How the New Advertising Industry is Defining Your Identity and Your Worth* (Yale University Press: New Haven, 2011).

David Lyon, *The Electronic Eye: The Rise of Surveillance Society* (University of Minnesota Press: Minneapolis, 1994).

WK 12: COLLABORATION, INNOVATION, AND PROPERTY: THEORY, PRACTICE AND POLICY (Nov 15th)

Please read ONE of the following:

Jonathan Zittrain, “Tethered Appliances, Software as Service, and Perfect Enforcement,” and “Strategies for a Generative Future,” in *The Future of the Internet and How to Stop It* (Yale University Press: New Haven, 2008), pp 101-126 and 175-199.

OR

Yochai Benkler, “Some Basic Economics of Information Production and Innovation,” and “The Economics of Social Production,” in *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale University Press: New Haven, 2006), pp 35-58 and 91-127.

And view the following TED talks:

http://www.ted.com/talks/howard_rheingold_on_collaboration.html

http://www.ted.com/talks/charles_leadbeater_on_innovation.html

http://www.ted.com/talks/lang/en/larry_lessig_says_the_law_is_strangling_creativity.html

Additional texts:

Tarleton Gillespie, *Wired Shut: Copyright and the Shape of Digital Culture* (MIT Press: Cambridge MA, 2007).

Jonathan Zittrain, *The Future of the Internet – and How to Stop It* (Yale University Press: New Haven CT, 2008).

James Boyle, *The Public Domain: Enclosing the Commons of the Mind* (Yale University Press: New Haven CT, 2008).

**** nb: no class Thursday, Nov 23rd (Thanksgiving holiday) ****

WK 13: PROJECT PRESENTATIONS (Nov 29th)

No assigned readings; students are invited to pre-circulate drafts for instructor and peer feedback.

WK 14: PROJECT PRESENTATIONS (date TBD – we will look to schedule an additional presentation session during the final week of classes)

No assigned readings; students are invited to pre-circulate drafts for instructor and peer feedback.

**** *final papers due (in paper and email form) by 5 pm on Monday, Dec 17th *****