

CCTP-781-01, Spring 2010
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Culture, Communication and Technology

Technology and Human Action: Qualitative Methodologies

This course will focus on qualitative research approaches to the study of use, design and consequences of technologies. Topics will include: How to study technology and materiality? How do we research action, conversation and discourse around technology? And how do we qualitatively study large-scale technologies such as infrastructure? Qualitative research, as defined in this course, will be based primarily on ethnography, interviews and document analysis; however, this will not be a hands-on methods course. Rather, our goal in this course will be to learn how to use such approaches to generate researchable objects. We will explore mundane everyday technologies like the photocopier, and monumental technologies like the space shuttle; 'hard technologies' such as automobiles and 'soft technologies' such as software. To address these topics we will closely read 'canonical qualitative studies' (primarily in grounded theory, ethnomethodology and actor-network theory), and ask: how have we made technology in action empirically researchable?

Credits: 3

Prerequisites: None

Book List (articles available on Blackboard)

Vaughan, D. (1996). *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA*. Chicago, University of Chicago Press.

Latour, B. and S. Woolgar (1979 [1986 paperback]). *Laboratory life: the construction of scientific facts*. Beverly Hills, Sage Publications.

Suchman, L. (2006). *Human-Machine Reconfigurations: Plans and Situated Actions*, 2nd Expanded Edition. *Plans and Situated Actions II*. Cambridge, MA, Cambridge University Press.

Orr, J. E. (1996). *Talking About Machines: An Ethnography of a Modern Job*. Ithaca, Cornell University Press.

Thompson, C. (2005). *Making parents: the ontological choreography of reproductive technologies*. Cambridge, MA, The MIT Press.

Expectations

All students are expected to:

- come to class having finished the assigned readings;
- come to class with questions, argument and viewpoints to contribute to the discussion of those readings;

- participate fully in group discussions, neither dominating nor allowing others to carry the intellectual load;

Requirements for all students:

- At least one in-class presentation of course readings.
- A two page summary paper for each of the four first primary texts in this class. The electronic version of this response is due no later than 8 a.m. on the day of the seminar, submitted to the course Blackboard site. Please also bring a printed copy to class.
- A ~750 word proposal for the final paper. The paper should identify the sphere of influence and literatures for one of our primary texts. **Due Mon. April 10th.**
- A brief presentation of the final project, at the last class meeting.
- A 2500-3500 word essay on a seminal text of your choice tracing the influences it has had in research, scholarship, technology and/or the public sphere. **Due Fri. April 15th.**

Evaluation

Discussion and Participation	10%
Short Papers (4)	10%
Discussion Presentation	10%
Final Presentation	10%
Proposal and Literature Review	20%
Term Paper	40 %

Please note that no late assignments are accepted, unless you have a serious reason.

Week One Introduction (1.13.10)

This course is about careful reading of seminal books. The key to success in this class will be close readings and careful discussion. Read this guide by Paul Edwards to understand how to get the most out of 'reading a book':

<http://www.si.umich.edu/~pne/PDF/howtoread.pdf>

Week Two Practice and Action (1.25.10)

Readings

Gasser, L. (1986). "The Integration of Computing and Routine Work." ACM Transactions on Office Information Systems 4: 205-225.

Downey, G. L. (1998). The Machine in Me: An Anthropologist Sits Among Computer Engineers. New York, Routledge. (Ch.1, Ch.5-6)

Dourish, P. (2001). Where the Action Is: The Foundations of Embodied Interaction. Cambridge, MIT Press. (Preface, Ch.1-4)

Week Three What are Ethnographies of Technology For? (2.1.10)

Readings

Heath, C., H. Knoblauch, et al. (2000). "Technology and social interaction: the emergence of 'workplace studies'." *British Journal of Sociology* 51(2): 299-320.

Dourish, P. (2006). Implications for Design. CHI 2006, Montreal, Que. Can., ACM.

Crabtree, A., T. Rodden, et al. (2009). Ethnography considered harmful. In CHI '09: Proceedings of the 27th international conference on Human factors in computing systems, April 4-9, 2009, Boston, MA, ACM.

Star, S. L. and A. Strauss (1999). "Layers of Silence, Arenas of Voice: The Ecology of Visible and Invisible Work." *Computer Supported Cooperative Work* 8(1-2): 9-30.

Week Four Formal & Informal Work (2.8.10)

Readings

Orr, J. E. (1996). *Talking About Machines: An Ethnography of a Modern Job*. Ithaca, Cornell University Press.(all)

First summary paper due.

Week Five Objects and Order (2.22.10)

Readings

Latour, B. (1992). Where are the Missing Masses? The Sociology of a Few Mundane Artifacts. Shaping Technology/Building Society: Studies in Sociotechnical Change. W. E. Bijker and J. Law. Cambridge, MA, The MIT Press.

Berg, M. (1996). "Practices of reading and writing: the constitutive role of the patient record in medical work." *Sociology of Health & Illness* 18(4): 499-524.

Geiger, R. S. and D. Ribes (2010). "The work of sustaining order in wikipedia." Proceedings of the 2010 ACM Conference on Computer Supported Cooperative Work (CSCW).

Week Six Action And Planning (3.1.10)

Readings

Suchman, L. (2006). *Human-Machine Reconfigurations: Plans and Situated Actions*, 2nd Expanded Edition. *Plans and Situated Actions II*. Cambridge, MA, Cambridge University Press. (you may read the whole book, but we will focus in class on chapters 3-10, the first edition of the book)

Second summary paper due.

Week Seven Subjectivity and Cognition (3.15.10)

Readings

Preda, A. (2006). "Socio-Technical Agency in Financial Markets: The Case of the Stock Ticker." Social Studies of Science **36**(5): 753-782.

Latour, B. (1986). "Visualization and Cognition: Thinking with Eyes and Hands." *Knowledge and Society: Studies in the Sociology of Culture Past and Present* 6: 1-40.

3rd Reading TBD

Week Eight Science and the Laboratory (3.22.10)

Readings

Knorr-Cetina, K. (1995). *Laboratory Studies: The Cultural Approach to the Study of Science*. *Handbook of Science, Technology and Society*. S. Jasanoff, G. E. Markle, J. C. Petersen and T. J. Pinch. Los Angeles, Sage.

Latour, B. and S. Woolgar (1979 [1986 paperback]). *Laboratory life: the construction of scientific facts*. Beverly Hills, Sage Publications. (preface, introduction, Chap 1-3, 6, Postscript)

Second summary paper due.

Week Nine From the Lab to the World (3.29.10)

Readings

Goodwin, C. (1994). "Professional Vision." *American Anthropologist* **96**(3): 606-615. (note: this is intentionally not the complete article).

Latour, B. (1999). "Chapter 2: 'Circulating Reference'." In *Pandora's hope : essays on the reality of science studies*. Cambridge, Mass., Harvard University Press.

Timothy Mitchell, "The Character of Calculability," in *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley: University of California Press, 2002), pp. 80-152

Week Ten Organization in Practice (4.12.10)

Vaughan, D. (1996). *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA*. Chicago, University of Chicago Press. (All main Chapters and Appendix C)

Fourth summary paper due.

Week Eleven – Studying Distribution: Time and Space (4.19.10)

Readings

Marcus, G. (1995). "Ethnography in/of the world system: the emergence of multi-sited ethnography." *Annual review of anthropology* **24**(1): 95-117.

Ribes, D. and T. A. Finholt (2009). "The long now of infrastructure: Articulating tensions in development." *Journal for the Association of Information Systems (JAIS): Special issue on eInfrastructures* **10**(5): 375-398.

Knorr-Cetina, K. (2002). "Global Microstructures: The Virtual Societies of Financial Markets." *American Journal of Sociology* **107**(4).

Paper Proposal Due

Week Twelve – Bodies & Biologies (or, Are we human or are we dancers?) (4.26.10)

Readings

Thompson, C. (2005). *Making parents: the ontological choreography of reproductive technologies*. Cambridge, MA, The MIT Press.

Week Thirteen -- Student Presentations (5.3.10)

FINAL PAPER DUE Fri. April 15 (5.15.10)