

Infrastructure Studies: Knowledge, Distribution and Power

CCTP-665-01, Spring 2010

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Communication, Culture and Technology

Description:

There is a great deal of ‘political heat’ hidden within the infrastructures that support our daily activity, e.g., where does our water supply come from? Where does our garbage go? And what are our search engines leaving out? This course will focus on literature drawn from organizational studies, history of technology, and science studies regarding the concept of infrastructure: we will focus on classic infrastructures such as roads and power lines; invisible infrastructures such as those that enable the production of art; and new information infrastructures such as the Internet. While infrastructure quickly becomes invisible and appears dull, in this course we will seek to unearth the controversies in their construction and maintenance. Topics will include standardization and classification; flexibility and extensibility; invisibility and black-boxing; and understanding infrastructure in relation to lived practice. Specific case studies in power lines, transportation and development of the internet will sensitize us to the particularities of infrastructures in context – thus, there is something general to be learned about infrastructure and still more that is always local.

Readings:

1) There are FOUR required books:

Bowker, G. C. and S. L. Star (1999). *Sorting things out : classification and its consequences*. Cambridge, Mass., MIT Press.

Latour, B. (1996). *Aramis, or, The love of technology*. Cambridge, Mass., Harvard University Press.

Beniger, J. R. (1986). *The Control Revolution: Technological and Economic Origins of the Information Society*. Cambridge, MA, Harvard University Press.

Scott, J. C. (1998). *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, Yale University Press.

All other readings will be made available in electronic reserves.

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:

- A four page double-spaced summary & position paper for each of the four 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 introductory presentation of readings for one week (5-7mins)
- Final project. Your final project will be a paper 3000-4000 words in length. In this paper you will research and explore ‘an infrastructure,’ drawing (primarily) from secondary literature. You may explore an infrastructure we have covered in this course (metro, power lines, internet) or identify a new one (sewer, airlines, ‘the cloud’). The choice of topic is up to you, but all topics must engage with some part of the theories or methods covered in the course (e.g., flexibility, control, standards, controversy). Format is also up to you, and I encourage you to choose whichever format is most useful to you in developing relevant professional skills. Options include: grant, fellowship, or thesis proposal; bibliographic review essay; or preliminary research paper.
 - This assignment has three parts:
 - 300-500 word proposal, clearly describing your topic and how it relates to course materials and concepts, is due by class-time on March 8th. Please submit by email.
 - A 5-10 minute presentation on your research topic for the class.
 - The final version, edited, revised, and proofread, is due on May 13th. Please submit by email and in hard copy.
 - In addition, during week 11 or 12, please plan to schedule a 10 minute appointment with me to discuss the plan for your paper.

Evaluation

Discussion and Participation	10%
Reading Presentation	5%
Short Papers (4)	40%
Term Paper (3 parts)	45 %

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

Schedule and assigned readings:

WEEK 1: Course introduction; NO READINGS (1.14.10)

This course is about careful reading of seminal texts. The key to success in this class will be close reading 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 2: *Perspectives on Infrastructure* (1.21.10)

Star, S. L. (1999). "The Ethnography of Infrastructure." *American Behavioral Scientist* **43**: 377-391.

Winner, L. (1980). "Do Artifacts Have Politics?" *Daedalus* **19**(09): 121-136.

David, P. (1986). Understanding the Economics of QWERTY: The Necessity of History. *Economic History and the Modern Economist*. W. N. Parker: 30-49.

WEEK 3: *Infrastructure and Modernity* (1.28.10)

Graham and Marvin, *Splintering Urbanism*, pp. 0-216. Be sure to read the table of contents, the lists of tables and figures, and the page of quotations just before the Prologue. (Skip the acknowledgements.)

WEEK 4 – NO CLASS (2.4.10)

WEEK 5: *Case Study: Invisible Washington* (2.11.10)

Schrag, Z. (2006). *The Great Society Subway: A History of the Washington Metro*. Baltimore, John Hopkins University Press. (Introduction, Chapters 1-3, 6, Conclusion)

Bruno Latour, *Paris: Invisible City*, www.bruno-latour.fr/virtual/index.html (look over this website). Read the first 81 vignettes.

WEEK 6: *Case study: A Failed Subway* (2.18.10)

Latour, B. (1996). *Aramis, or, The love of technology*. Cambridge, Mass., Harvard University Press.

Summary & Position Paper 1 Due

Week 7: *Broadening Infrastructure* (2.25.10)

Becker, H. S. (1982). *Art Worlds*. Berkeley, CA, University of California Press. (Chapters 1-5)

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.

John Tagg, "Evidence, Truth and Order: Photographic Records and the Growth of the State," in Liz Wells, ed. *The Photography Reader* (Routledge: New York, 2003), pp 257-260.

WEEK 8: Information Revolutions (3.4.10)

Beninger, J. R. (1986). The Control Revolution: Technological and Economic Origins of the Information Society. Cambridge, MA, Harvard University Press. (All, focus on Chs. 1-6. 9-10)

Summary & Position Paper 2 Due

SPRING BREAK (3.8-12.10)

WEEK 9: Bureaucracy & Management (3.18.10)

Jack Goody, "The State, The Bureau, and the File," in *The Logic of Writing and the Organization of Society* (Cambridge University Press: Cambridge, 1986), pp 87-126.

Yates, JoAnne. 1989. Chapter 3 (Genres of Internal Communication) in *Control through Communication: The Rise of System in American Management*. Baltimore: John Hopkins U. Press.

Haigh, T. (2001). "Inventing information systems: The systems men and the computer, 1950-1968." *The Business History Review* 75(1): 15-61.

Week 10: Classification and Standards (3.25.10)

Bowker, G. C. and S. L. Star (1999). *Sorting things out : classification and its consequences*. Cambridge, Mass., MIT Press.

Summary & Position Paper 3 Due

EASTER BREAK (4.1-5.10)

WEEK 11: Measuring People (4.8.10)

Epstein, Steve. "Beyond the Standard Human?" In *Standards and Their Stories: How Quantifying, Classifying, and Formalizing Practices Shape Everyday Life (2009)*, ed. Martha Lampland and Susan Leigh Star (Ithaca, NY: Cornell University Press).

Sarah Igo, *The Averaged American: Surveys, Citizens and the Making of a Mass Public* (Cambridge:Harvard University Press, 2007) (Introduction, Chapter 3-4).

Martin, A. and M. Lynch (2009). "Counting Things and People: The Practices and Politics of Counting." *Social Problems* **56**(2): 243-266.

Paper Proposal Due

Please plan to schedule an appointment with me this week or the next to discuss your proposal.

WEEK 12: Governance (4.15.10)

Scott, J. C. (1998). Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven, Yale University Press.

(All, Focus on: Introduction, chapters 1-4, 6,7,9)

Summary & Position Paper 4 Due

WEEK 13: Users & Standards (4.22.10)

Abbate, J. (1999). Inventing the Internet. Cambridge, MA, MIT Press. (Chapters 1-2,5)

(Student presentations will likely begin this week)

Week 14: Student Presentations (4.29.10)

Final Paper Due May 13th