Science, Technology, and Medicine in Society

Science and Technology Studies 901 (core seminar) - Fall 2006
Thursdays 3:30-6:00 / 6121 Social Science Bldg.

Instructor:	Jason Delborne, NSF Postdoctoral Fellow in Science and Society
Email:	delborne@wisc.edu or jdelborn@ssc.wisc.edu
Office:	6321 Social Science Bldg., (608) 262-5382
Office Hours:	Wednesdays, 3:00-4:30 or by appointment

Course Description

As the core graduate seminar in the Science and Technology Studies program, this course will focus on exposing students to major theoretical developments and trends in the interdisciplinary field variously known as science studies; the social studies of science; science and technology studies; science, technology, and society; or simply STS. We will reflect upon and challenge the ideas of some of the foundational scholars (e.g., Kuhn, Fleck, Merton, Polanyi), interrogate various branches of scholarship that developed as the field matured (e.g., laboratory ethnographies, sociology of scientific knowledge, actor-network theory, controversy studies), as well as explore emerging directions in the field (e.g., feminist approaches in STS, STS and race, new political sociology of science). The core commitment to interdisciplinarity in STS, however, prevents the establishment of a clear 'canon' of work that *must be* read by every serious scholar. This course thus cannot hope to be comprehensive, but the syllabus provides an opportunity for both deep and broad understanding that will support further investigation and reading.

The course has four goals:

1. Introduce students to key conceptual and theoretical developments in the field of STS from the mid-20th century to the early 2000s.

2. Develop students' analytical skills to compare, contrast, and apply theoretical approaches in STS.

3. Challenge students to self-reflect on their own assumptions about the relationships among knowledge, science, technology, politics, and publics.

4. Facilitate the creation of collective, personal, and tangible resources for students to incorporate STS into future research projects, writing assignments, and teaching opportunities.

The course will be taught in the spirit of a pro-seminar – we are learning together. The time each week in discussion represents the only meaningful difference between taking the course and simply using the syllabus as a private reading list. Preparation for class (reading, thinking, and writing) is essential to each participant's intellectual development, as well as to the experience of the group.

Requirements and Evaluation

1. Class participation (20%). Show up prepared for class, engage in discussion, ask questions, dare to be wrong, listen to your colleagues, and share your ideas respectfully.

2. Presentation and discussion facilitation (20%). Except for sessions that involve a guest speaker, students will take turns presenting the readings and facilitating class discussion. Responsibilities include:
    a. Presenting a brief analysis (~15 min) to the class about the week's readings, offering an overview of the main ideas and some perspective on how the selections fit into what we have covered thus far in the course. Although not mandatory, presenters may wish to read beyond the required readings in the syllabus. This could enrich the presentation, but should not become the focus. Handouts, visuals, and other creative ideas are welcome.
    b. Developing a plan for discussion. This could include breaking up into smaller groups, generating a list of questions to pose to the class, incorporating issues and questions raised by other students' analytic reading memos (see below), and attending to the scope of the readings.
    c. Consulting with the instructor about the presentation and plan for discussion (during office hours or another scheduled time prior to class).
    d. Providing annotated bibliographic entries (in EndNote or another agreed-upon electronic format) to the student listserve within one week of the class meeting. Entries should include an abstract (un/official) and no more than one page (~250 words) of notes. Notes should address the author's primary claims; what arguments/literatures the author engages explicitly or implicitly; key vocabulary; and some analysis or critique. Think utility, not eloquence. Although the notes may be drafted ahead of the class meeting, they should be revised according to ideas or critiques that arise in class discussion. The instructor will provide an EndNote file to all students at the beginning of the course with all citation information already included. [For weeks without student presenters, class participants may wish to fill out this bibliography on their own in order to have a comprehensive resource at the end of the course.]

3. Collaborative Critical Analysis (25%). Select a recently published article in *Science, Technology, and Human Values (STHV)* or *Social Studies of Science (SSS)* not already included in the syllabus. Write a critical analysis (5-7 pages) using at least two sources from required readings on the syllabus and at least one other source. Assignment due no later than **November 27, 3PM**. Choose one option:
    a. Conduct this assignment with a partner. Along with your final paper, submit separate 1-2 page reflections on your experience of working collaboratively.
    b. Exchange drafts of this assignment with a partner no later than **November 9**. Each of you writes a critical and constructive review (2-3 pages) of the other person's draft (in addition to any marks/comments on a hard copy), due back to the author no later than **November 16**. Along with your final paper, please submit a hard copy of your peer-reviewed draft (with or without comments) and a copy of the peer-review that you received.

4. Choose ONE of the following (35%):
    a. Analytic reading memos (~2 pages) for each of seven weeks of the semester (you choose the weeks). Email your memo to the instructor AND to the weekly presenters/facilitators by **Wednesday noon** prior to the class meeting at which the readings will be discussed. Submissions should be grounded in the week's reading material, pose 3-5 questions for discussion, and provide analysis (not summaries) that cuts across readings. Each memo will be evaluated on a 5 point scale. You may submit more than seven memos, in which case your seven best memos will determine your grade. Late submissions will receive no credit.
    b. Literature review (12-15 pages) for a potential or actual research project/proposal that incorporates STS as a major theoretical framework. Submit an initial proposal (2-3 pages) by **October 5**. Final paper due by **December 15, 5PM**.
    c. Term paper (12-15 pages). Choose a current issue or controversy and apply 2-3 frameworks from the syllabus. Analyze, compare, contrast, and make an argument for how STS creates needed insight for policymakers, scientists, the public, industry, and/or universities. Submit an initial proposal (2-3 pages) by **October 5**. Final paper due by **December 15, 5PM**.

All written assignments should be formatted with 1 inch margins, 12pt font (Times New Roman, if possible), and double-spaced. Citations for readings from the syllabus should simply indicate author, date, and page number if relevant [e.g., (Forsythe 2001: 140)]. Citations for other readings should follow the same format within the text, and also appear in a reference section at the end of the paper.

Extensions for assignments require the permission of the instructor no less than 48 hours *prior* to when the assignment is due (except in absolutely horrific circumstances). Otherwise, half-grade penalties will accrue every 24 hours for late assignments (e.g., an "A" becomes an "AB" if it is two hours late, and becomes a "B" if it is twenty-four hours late). Under no circumstances will the instructor accept assignments after 5 PM on December 20 – any outstanding work will negatively affect the course grade or result in an "Incomplete."

Readings

Please note that the syllabus includes required and recommended readings. The recommended readings are listed as a resource for students preparing presentations, writing papers, or doing further reading after this semester. It is by no means expected that 'good' students will complete the recommended readings to prepare for class.

Books are available for purchase at the Rainbow Bookstore Cooperative (426 West Gilman Street, 257-6050) and on 3-hour reserve at the College Library (in Helen C. White Hall).

- *Fleck, Ludwik (1979 [1935]). *Genesis and Development of a Scientific Fact*. Chicago, The University of Chicago Press.
- Hess, David J. (1997). *Science Studies: An Advanced Introduction*. New York, New York University Press.

- *Kuhn, Thomas S. (1996 [1962]). *The Structure of Scientific Revolutions*. Third edition. Chicago, University of Chicago Press.
- Latour, Bruno (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, Harvard University Press.

* For Week 2, half of the class will read Kuhn while the other reads Fleck. Both books are worth owning, but you may choose to wait to purchase one until finding out your assignment in class during Week 1.

All other required readings are available through electronic reserve, which is accessible through the MyUW website (http://my.wisc.edu/portal/) to all students enrolled in the course (click on "Academic" tab). Students who prefer a traditional course reader should approach the instructor at (or preferably before) the first class meeting.

Schedule

Week 1

9/7 Launching Points

- Merton, Robert King (1973). Science and the Social Order [1938] & The Normative Structure of Science [1942]. *The Sociology of Science: Theoretical and Empirical Investigations / Robert K. Merton*. N. W. Storer. Chicago, University of Chicago Press**:** 254-78.
- Polanyi, Michael (2000 [1962]). "The Republic of Science: Its Political and Economic Theory." *Minerva* 38: 1-21.
- Feyerabend, Paul (1993 [1975]). *Against Method*. London, Verso. Read pages 1-38, 147-58, and 238-51.
- Winner, Langdon (1986). Technologies as Forms of Life (Ch. 1) & Do Artifacts Have Politics? (Ch.2). *The Whale and the Reactor: A Search for Limits in an Age of High Technology*. Chicago, University of Chicago Press. (pages 3-39)
- Hess (1997). *Science Studies*. Chapters 1-3 (80 pages)
- Browse website of UW Madison's Robert F. and Jean E. Holtz Center for Science and Technology Studies (http://www.sts.wisc.edu/index.html).

RECOMMENDED

- Mendelsohn, E. (1989). "Robert K. Merton: The Celebration and Defense of Science." *Science in Context* 3(1): 269-289.
- Ziman, John (2000). "Commentary [on Polanyi's Republic of Science]." *Minerva* 38: 21-25.
- Browse website of the Society for Social Studies of Science (4S) (http://4sonline.org/).
- Browse STS Wiki (http://www.stswiki.org/wiki/Main_Page).
- Wikipedia entry for STS (http://en.wikipedia.org/wiki/Science_and_technology_studies).
- Sismondo, Sergio (2004). *An Introduction to Science and Technology Studies*. Malden, MA, Blackwell Publishing Ltd. [good overview of the field]
- Yearley, Steve (2005). *Making Sense of Science: Understanding the Social Study of Science*. London, Sage. [A good overview, with a leaning towards more contemporary issues]

Week 2

9/12 Steve Shapin meeting with graduate students on Tuesday, 4:00-5:30pm

9/13 Steve Shapin lecture on Wednesday, 12:00-1:30pm

Although attending these events is not mandatory, it is strongly encouraged. Please read the following in order to familiarize yourself with a bit of Shapin's classic work.

- Shapin, Steven (1999 [1988]). The House of Experiment in 17th Century England. *The Science Studies Reader*. M. Biagioli. New York, Routledge**:** 479-504.

9/14 Science as a Social Process

- Fleck, Ludwik (1979 [1935]). *Genesis and Development of a Scientific Fact*.

OR

- Kuhn, Thomas S. (1996 [1962]). *The Structure of Scientific Revolutions*. 3rd Edition.

Half of the class will read Kuhn while the other reads Fleck. Assignments and arrangements for presentations will be made during Week 1.

Week 3

9/21 Sociology of Scientific Knowledge (SSK)

- Hess (1997). Social Studies of Knowledge. *Science Studies* (pages 81-111).
- Shapin, Steven and Schaffer, Simon (1985). *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*. Princeton, NJ, Princeton University Press. Read Chapters 1, 2, 8 (pages 3-79, 332-44).
- Bloor, David (1991). *Knowledge and Social Imagery*. 2nd Edition. Chicago, University of Chicago Press. Read Chapters 1-3 (pages 3-54). (Strong Program)
- Collins, Harry (1983). An Empirical Relativist Programme in the Sociology of Scientific Knowledge. *Science Observed*. K. Knorr-Cetina and M. Mulkay. Sage: 85-115. (Bath School)
- Shapin, Steven (1995). "Here and Everywhere: Sociology of Scientific Knowledge." *Annual Review of Sociology* 21: 289-321.

RECOMMENDED

- Barnes, Barry (1977). *Interests and the Growth of Knowledge*. Boston, MA, Routledge and K. Paul.
- Laudan, L (1981). "The Pseudo-Science of Science." *Philosophy of the Social Sciences* 11: 173-98. (Scathing critique of the strong program)
- Bloor, David (1981) "The Strengths of the Strong Programme." *Philosophy of the Social Sciences* 11:199-213. (reply to Laudan)
- Shapin, Steven (1994). *A Social History of Truth: Civility and Science in Seventeenth-Century England*. Chicago, University of Chicago Press.

Week 4

9/28 Laboratory Studies

- Latour, Bruno and Steve Woolgar (1986 [1979]). *Laboratory Life: The Construction of Scientific Facts*. Princeton, NJ, Princeton University Press. Read Introduction and Chapter 2 (An Anthropologist Visits the Laboratory) (pages 11-14, 43-90).

- Knorr-Cetina, Karin (1999). *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, MA, Harvard University Press. Read pages 26-110.
- Kleinman, Daniel Lee (1998). "Untangling Context: Understanding a University Laboratory in the Commercial World." *Science, Technology, & Human Values* 23(3): 285-314.
- Forsythe, Diana E. (2001). *Studying Those Who Study Us: An Anthropologist in the World of Artificial Intelligence*. Stanford, CA, Stanford University Press. Read Chapter 9 (pages 132-45).

RECOMMENDED

- Hess, David (2001). Ethnography and the Development of Science and Technology Studies. *Handbook of Ethnography*. Atkinson et al. London, Sage: 234-45.
- Knorr, Karin (1981). *The Manufacture of Knowledge: An Essay in the Constructivist and Contextual Nature of Science*. Oxford, Pergamon.
- Knorr-Cetina, Karin (1995). Laboratory Studies: The Cultural Approach to the Study of Science. *Handbook of Science and Technology Studies.* Sheila Jasanoff, et al. London, Sage: 140-166.
- Lynch, Michael (1985). *Art and Artifact in Laboratory Science: A Study of Shop Work and Shop Talk in a Research Laboratory*. New York, Routledge.
- Traweek, Sharon (1988). *Beamtimes and Lifetimes: The World of High Energy Physicists*. Cambridge, MA, Harvard University Press.
- Woolgar, Steve (1982). "Laboratory Studies: A Comment on the State of the Art." *Social Studies of Science* 12(4): 481-498.

Week 5

10/5 Deadline for submitting initial proposals for term paper or literature review option

10/5 Science in Action

- Latour, Bruno (1987). *Science in Action*.
- Amsterdamska, Olga (1990) "Surely you are joking, Monsieur Latour!" *Science, Technology and Human Values* 15 (4 - Fall): 495-504.

RECOMMENDED

- Shapin, Steve (1988) "Following Scientists Around." *Social Studies of Science* 18: 533-50 [Review of *Science in Action*].

Week 6

10/12 Actor-Network Theory (ANT) & Social Worlds

- Callon, Michel (1999 [1985]). Some Elements of a Sociology of Translation: Domestication of the scallops and the fishermen of St. Brieuc Bay. *The Science Studies Reader*. M. Biagioli. New York, Routledge**:** 67-83.
- Latour, Bruno (1999 [1983]). Give Me a Laboratory and I Will Raise the World. *The Science Studies Reader*. M. Biagioli. New York, Routledge**:** 258-275.
- Law, John and John Hassard (1999) *Actor-Network Theory and After*. Oxford, Blackwell. Read pages 1-25, 74-89.

- Clarke, Adele and Theresa Montini (1993). "The Many Faces of RU486: Tales of Situated Knowledges and Technological Contestations." *Science, Technology, & Human Values* 18(1 - Winter): 42-78.
- Fujimura, Joan H. (1988). "The Molecular Biological Bandwagon in Cancer Research: Where Social Worlds Meet." *Social Problems* 35: 261-83.

RECOMMENDED
- Fujimura, Joan H. (1992). Crafting Science: Standardized Packages, Boundary Objects, and 'Translations.' *Science as Practice and Culture.* A. Pickering. Chicago, University of Chicago Press: 168-214.
- Garrety, Karin (1997). "Social Worlds, Actor-Networks and Controversy: The Case of Cholesterol, Dietary Fat and Heart Disease." *Social Studies of Science* 27: 727-73.
- Latour (1999) *Pandora's Hope: Essays on the Reality of Science Studies?* Cambridge, MA, Harvard University Press.
- Pickering (1999 [1993]) The Mangle of Practice: Agency and Emergence in the Sociology of Science. *The Science Studies Reader*. M. Biagioli. New York, Routledge: 372-93.
- Scott, P. (1991) "Levers and Counterweights: A Laboratory that Failed to Raise the World." *Social Studies of Science* 21: 7-37.
- Law, John and Michel Callon (1992) The Life and Death of an Aircraft: A Network Analysis of Technological Change. *Shaping Technology / Building Society: Studies in Sociotechnical Change.* W. Bijker and J. Law. Boston, MA, MIT Press: 21-52.

Week 7
10/19 Visual Cultures
Guest Speakers: Gregg Mitman (History of Science)
Hannah Landecker (Anthropology, Rice University)

- Cartwright, Lisa (1992). "'Experiments of Destruction': Cinematic Inscriptions of Physiology." *Representations* 40(Fall): 129-52.
- Mitman, Gregg (1993). "Cinematic Nature: Hollywood Technology, Popular Culture, and the American Museum of Natural History." *Isis* 84(4): 637-661.
- Landecker, Hannah (2005). "Cellular Features: Microcinematography and Film Theory." *Critical Inquiry* 31(4): 903-37.
- Landecker, Hannah (2006). "Microcinematography and the History of Science and Film." *Isis* 97(1): 121-32.
- Mitman, Gregg (forthcoming). The Color of Money: Campaigning for Health in Black and White America. *Imagining Illness: Public Health and Visual Culture*. D. Serlin. Minneapolis, University of Minnesota Press**:** 33 pages. [not on e-reserves, hard copy will be provided]

NOTE: "Trans: A Visual Culture Conference" will be occurring on campus Oct. 19-22. See http://www.visualculture.wisc.edu/conference/trans.html for more details.

RECOMMENDED
- Mitman, Gregg (1999). *Reel Nature: America's Romance with Wildlife on Films*. Cambridge, MA, Harvard University Press.
- Mitman, Gregg (1996). "When Nature *Is* the Zoo: Vision and Power in the Art and Science of Natural History." *Osiris, 2nd Series* 11: 117-43.

Week 8

11/16 Gender & STS

- Harding, Sandra G. (1991). *Whose Science? Whose Knowledge?: Thinking from Women's Lives*. Ithaca, NY, Cornell University Press. Read pages 1-76.
- Martin, Emily (1991). "The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles." *Signs* 16(3): 485-501.
- Haraway, Donna (1999 [1988]). Situated Knowledges: The Science Question in Feminist and the Privilege of Partial Perspective. *The Science Studies Reader*. M. Biagioli. New York, Routledge**:** 172-188.

RECOMMENDED

- Haraway, Donna (1989). *Primate Visions: Gender, Race and Nature in the World of Modern Science*. New York, Routledge. [especially "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," pages 26-58]
- Haraway, Donna (1991) A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York, Routledge: 149-182.
- Haraway, Donna (1997). *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™*. New York, Routledge.
- Harding, Sandra G. (1986). *The Science Question in Feminism*. Ithaca, NY, Cornell University Press.
- Hess (1997) Critical and Cultural Studies of Science and Technology, in *Science Studies*: 112-147.
- Mialet (1999) "Do Angels Have Bodies?: Two Stories about Subjectivity in Science" *Social Studies of Science* 29(4): 551-81.
- Potter, Elizabeth (2001). *Gender and Boyle's Law of Gases*. Bloomington, IN, Indiana University Press.
- Thompson, Charis (2005). *Making Parents: The Ontological Choreography of Reproductive Technologies*. Cambridge, MA, MIT Press.

Week 9

11/2 No class meeting

Instructor and other STS faculty will be attending the annual meetings of the Society for Social Studies of Science (4S). Readings on Controversy Studies (I & II) will be discussed during Week 10.

Controversy Studies I

- Collins, Harry M. and Trevor J. Pinch (1979). The Construction of the Paranormal: Nothing Unscientific Is Happening. *On the Margins of Science: The Social Construction of Rejected Knowledge*. R. Wallis. Keele, England, University of Keele Press**:** 237-69.
- Collins, Harry M. (1992). *Changing Order: Replication and Induction in Scientific Practice*. Chicago, University of Chicago Press. Read pages 51-112.

Week 10

11/9 Deadline for exchanging drafts of Collaborative Critical Analyses for peer review

11/9 Controversy Studies II

- Gieryn, Thomas F. (1999). *Cultural Boundaries of Science: Credibility on the Line*. Chicago, University of Chicago Press. Read Introduction and Chapter 4 (pages 1-35, 183-232).
- Simon, Bart (1999) "Undead Science: Making Sense of Cold Fusion after the (Arti)Fact," Social Studies of Science 29(1): 61-85.
- Martin, Brian and Evelleen Richards (1995). "Scientific Knowledge, Controversy and Public Decision Making" in Jasanoff, S *et al.* (eds) *Handbook of Science and Technology Studies.* Newbury Park, CA, Sage: 506-26.

RECOMMENDED

- Collins, Harry M. (ed.) (1981). "Special Issue: 'Knowledge and Controversy: Studies of Modern Natural Science.'" *Social Studies of Science* 11(1).
- Collins, Harry and Trevor Pinch (1994). *The Golem: What Everyone Should Know About Science*. Cambridge, Cambridge University Press. [review of multiple case studies and basic concepts]
- Epstein, Steven (1996). *Impure Science: AIDS, Activism, and the Politics of Knowledge*. Berkeley and Los Angeles, University of California Press. [Part One]
- Kleinman, Daniel Lee, Abby J. Kinchy and Jo Handelsman, Eds. (2004). *Controversies in Science and Technology : From Maize to Menopause*. Science and technology in society. Madison, University of Wisconsin Press.
- Martin, Brian (1991). *Scientific Knowledge in Controversy: The Social Dynamics of the Fluoridation Debate*. Albany, State University of New York Press.
- Nelkin, Dorothy (1995). Science Controversies: The Dynamics of Public Disputes in the United States. *Handbook of Science and Technology Studies*. S. Jasanoff, G. E. Markle, J. C. Peterson and T. Pinch. Thousand Oaks, California, Sage**:** 444-56.
- Pinch, Trevor J. (1979). "Normal Explanations of the Paranormal: The Demarcation Problem and Fraud in Parapsychology." *Social Studies of Science* 9(3): 329-48.
- Simon, Bart (2002). *Undead Science: Science Studies and the Afterlife of Cold Fusion*. Piscataway, NJ, Rutgers University Press.

Week 11

11/16 Deadline for returning peer-reviewed drafts of Collaborative Critical Analyses

11/16 Studies of Race in Science
Guest Speaker: Joan Fujimura (Sociology)

- Haraway, Donna (1997). *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™*. New York, Routledge. Read Chapter 6: "Race: Universal Donors in a Vampire Culture" (pp. 213-65).
- Stepan, Nancy Leys (1993). Race and Gender: The Role of Analogy in Science. *The"Racial" Economy of Science: Toward a Democratic Future*. Sandra Harding. Bloomington, Indiana University Press: 359-76.
- Livingstone, Frank B. (1993) On the Nonexistence of Human Races. *The"Racial" Economy of Science: Toward a Democratic Future*. Sandra Harding. Bloomington, Indiana University Press: 133-41.

- Ossorio, Pilar and Troy Duster (2005). "Race and Genetics: Controversies in Biomedical, Behavioral, and Forensic Sciences." *American Psychologist* 60(1):115-28.
- Duster, Troy (2005) "Race and Reification in Science." Science 307 (18 February): 1050-51.
- Duster, Troy (forthcoming) "Molecular Medicalization of Race." *Lancet*. [draft provided by Professor Fujimura].
- Cooper, Richard S., Jay S. Kaufman, and Ryk Ward (2003) "Race and Genomics," *New England Journal of Medicine* 348 (12): 1166-70.
- González Burchard, Esteban, Neil Risch, et al. (2003) "The Importance of Race and Ethnic Background in Biomedical Research and Clinical Practice," *New England Journal of Medicine* 348 (12): 1170-75.
- Ellison, George (2005) "'Population Profiling' and Public Health Risk: When and How Should We Use Race/Ethnicity?" *Critical Public Health* 15(1): 65-74.

Thanksgiving Week (no class on November 23)

Week 12
11/27, 3PM: Deadline for submitting Collaborative Critical Analysis

11/30 Social Construction of Technology (SCOT) and Social Informatics
Guest Speaker: Kristin Eschenfelder (Library and Information Studies)

- Bijker, Wiebe (1997) *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change.* Cambridge, MIT Press. Read Chapters 1, 2, and 5.
- Eschenfelder, Kristin R. (2006) Maintaining the Covenant: Librarians and the Co-Construction of Access and Use Rights for Licensed Digital Resources. Paper presented at the annual meetings of the Society for the Social Studies of Science (4S), Vancouver. November 1-5, 2006.
- Sawyer, Steve and Kristin R. Eschenfelder (2002) Social Informatics: Perspectives, Examples and Trends. *Annual Review of Information Science and Technology* (36). B. Cronin. Medford, NJ, Information Today Inc./ASIST: 427-65.

Week 13
12/7 Expertise, Publics, and Governance

- Wynne, Brian (1995). Public Understanding of Science. *Handbook of Science and Technology Studies*. S. Jasanoff, G. Markle, J. Petersen and T. Pinch. Thousand Oaks, CA, Sage**:** 361-88.
- Wynne, Brian (1996). Misunderstood Misunderstandings: Social Identities and Public Uptake of Science. *Misunderstanding Science? The Public Reconstruction of Science and Technology*. A. Irwin and B. Wynne. Cambridge, Cambridge University Press**:** 19-46.
- Jasanoff, Sheila (1987). "Contested Boundaries in Policy-Relevant Science." *Social Studies of Science* (17): 195-230.
- Epstein, Steven (1995). "The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials." *Science, Technology & Human Values* 20(4): 408-437.

RECOMMENDED

- Brown, Phil and Edwin J. Mikkelsen (1997). *No Safe Place: Toxic Waste, Leukemia, and Community Action*. Berkeley, University of California Press.
- Epstein, Steven (1996). *Impure Science: AIDS, Activism, and the Politics of Knowledge*. Berkeley and Los Angeles, University of California Press. [Part Two]
- Fuller, Steve (2000). *The Governance of Science*. Buckingham, Open University Press.
- Guston, David H. (2000). *Between Politics and Science*. New York, Cambridge University Press.
- Jasanoff, Sheila (1990). *The Fifth Branch. Science Advisers as Policymakers*. Cambridge, Harvard University Press.
- Jasanoff, Sheila (2005). *Designs on Nature: Science and Democracy in Europe and the United States*. Princeton, N.J., Princeton University Press.
- Kleinman, Daniel Lee (1995). *Politics on the Endless Frontier: Postwar Research Policy in the United States*, Duke University Press.
- Kleinman, Daniel Lee (2000). *Science, Technology, and Democracy*, State University of New York Press.
- Latour, Bruno (1998). "From the World of Science to the World of Research?" *Science* 280(5361): 208-9. [pdf]
- Latour, Bruno (2004). *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, MA, Harvard University Press.

Week 14

12/14 The New Political Sociology of Science

- Frickel, Scott and Kelly Moore (2006). Prospects and Challenges for a New Political Sociology of Science. *The New Political Sociology of Science: Institutions, Networks, and Power*. S. Frickel and K. Moore. Madison, University of Wisconsin Press**:** 3-31.
- Kleinman, Daniel Lee and Steven P. Vallas (2006). Contradiction in Convergence: Universities and Industry in the Biotechnology Field. *The New Political Sociology of Science: Institutions, Networks, and Power*. S. Frickel and K. Moore. Madison, University of Wisconsin Press**:** 35-62.
- Woodhouse, Edward J. (2006). Nanoscience, Green Chemistry, and the Privileged Position of Science. *The New Political Sociology of Science: Institutions, Networks, and Power*. S. Frickel and K. Moore. Madison, University of Wisconsin Press**:** 148-84.
- Moore, Kelly (2006). Powered by the People: Scientific Authority in Participatory Science. *The New Political Sociology of Science: Institutions, Networks, and Power*. S. Frickel and K. Moore. Madison, University of Wisconsin Press**:** 299-323.
- Reardon, Jenny (2006). Creating Participatory Subjects: Science, Race, and Democracy in a Genomic Age. *The New Political Sociology of Science: Institutions, Networks, and Power*. S. Frickel and K. Moore. Madison, University of Wisconsin Press**:** 351-77.

12/15, 5PM Deadline for submitting final term paper or literature review option

12/?? Jason will host a potluck at his house. Please come prepared to talk for five minutes about your term paper, literature review, or critical analysis. This is not a graded exercise, but a chance to share informally with the class.