

SCIENCE STUDIES NETWORK (SSNet): AN INTERDISCIPLINARY RESEARCH NETWORK

**Walter Chapin Simpson Center for the Humanities
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PROJECT DESCRIPTION

In the last year we have mobilized an inclusive University of Washington-based network of faculty and graduate students who share an interest in science studies: the Science Studies Network (SSNet). In the process we have made significant inroads in all the areas outlined in our initial proposal: we have established a highly successful bi-weekly colloquium series that has drawn attendance from across the campus and beyond; we have engaged a significant cross-section of science studies colleagues in discussion of how SSNet can contribute to the development of an integrated interdisciplinary curriculum in science studies at UW; the synergy of interdisciplinary discussion has generated a number of topic-specific working groups now engaged in collaborative research projects; and we laid the foundations for an interactive website that will support all these initiatives in highly innovative ways. In building on the successes of this first year our goals are, first, to convene a year-long graduate and faculty seminar on “Democratizing Science” organized around three themes: “science in democracy”; “diversity in science”; and “normative claims for a democratic science.” Second, we will lay the foundations for a graduate certificate in science studies and for playing a coordinating role in the development of undergraduate science studies curriculum initiatives. Third, we will build an expanded web presence in the form of an interactive website that will support all these initiatives in highly innovative ways.

RATIONALE AND CONTEXT

The rationale for establishing an interdisciplinary network in science studies, as set out in our 2007-2008 proposal, was a recognition that the University of Washington does not support a co-ordinated science studies program comparable to those now well established at peer institutions of similar profile, despite its tremendous strengths in the sciences and despite its rich, if widely dispersed, resources in sciences studies. We proposed a two-year sponsored project the central aim of which was to create an inclusive forum in which faculty and graduate students might explore their common interests in science studies in a sustained way, and assess the potential for developing a strong science studies presence at the University of Washington.

In our initial proposal we identified three overlapping constituencies we hoped to bring together in this venture—colleagues working in the areas of History and Philosophy of Science, Cultural Studies of Science, and Ethics, Equity, and Science Policy—so, when we received Simpson Center support, we developed a program of bi-weekly colloquia that was designed, in the first instance (in the Fall quarter), to showcase work in each of these broad areas. We then scheduled a series of panel presentations for the Winter and Spring quarters on cross-cutting themes in which SSNet participants had expressed particular interest (in initial meetings of the Network and through hard copy and on-line response sheets). These include such topics as “Scientists’ Perspectives on STS,” “Digital Media, Technology, and Science,” “Science and Art,” and a number of topics related to the broad theme of “Democratizing Science” (see Appendix I for a full list of 2008-2008 SSNet colloquia). We also arranged for two off-week workshops (on equity and policy issues in the sciences), and for discussion meetings based on pre-circulated readings with several high profile visiting science studies speakers (these were independently sponsored, but in each case SSNet organizers were involved in bringing them to campus): Steve Epstein from UC-SD (sponsored by Critical Medical Humanities, November 7-8, 2007), Miriam Solomon from Temple

University (a Philosophy Department speaker; November 9, 2007), Nancy Cartwright from LSE/UC-SD (a Walker-Ames visiting scholar; March 6-10, 2007), and Richard Lewontin from Harvard (a Danz lecturer; April 16, 2007). Finally, SSNet has been a partner in organizing two conferences sponsored by the Simpson Center: the 10th Anniversary Philosophy of Social Science Roundtable which took place in early March, and a conference on community based collaborative research, "Expanding Interdisciplinarity: From Campus to Community," scheduled for early June.

The response to these colloquia, workshops, discussion meetings, and conferences has exceeded even the most optimistic hopes of the SSNet organizers. From the outset, attendance at all SSNet events has been overwhelming. The bi-weekly colloquia regularly draw between 25 and 60 participants; they proved to be so popular that we have instituted an on-line reservation system so we can limit attendance when it threatens to outstrip seating capacity. Most impressive, SSNet participants are drawn from across the campus and, indeed, the Seattle region. They hail from departments and programs based in all divisions of the College of Arts and Sciences (e.g., from American Ethnic Studies, Anthropology, Communication, Geography, Philosophy, Political Science, Sociology and Women Studies; from Comparative History of Ideas, DXArts, English and Comparative Literature, History; and from Astronomy, Biology, Earth and Space Sciences, Oceanography, and Physics); from professional schools and colleges such as Education, Oceans and Fisheries, Social Work, and Medicine (Bioengineering, Bioinformatics, Medical History and Ethics, and the Center for Genomics); and from the Interdisciplinary Arts and Sciences programs at UW Bothell and UW Tacoma. Our program of colloquia and speakers has also attracted considerable external interest. Regular colloquium attendees include science studies colleagues from Pacific Lutheran University and the University of Puget Sound, and we also periodically draw participants from Oregon State University and the University of Oregon, the University of British Columbia and Simon Fraser University. Clearly a UW-based Science Studies Network is meeting a need felt by scholars at institutions across the greater Pacific Northwest.

An even better measure of the success of the Science Studies Network is the excitement generated for new collaborative initiatives among its participants. A graduate forum is now meeting regularly, and a Digital Media working group has taken shape that has played an instrumental role in the development of our website. A substantial community of interest has coalesced around a range of topics captured by the theme "Democratizing Science"; the SSNet organizers are in the process of developing grant proposals for external funding for initiatives in this area (for example, for an NSF "graduate training and research" grant), and our proposal for a second year of Simpson Center support takes this as the organizing theme for the 2008-2009 SSNet colloquium and speaker series. A Town Hall meeting on science studies curriculum initiatives convened at the beginning of the Winter quarter brought together participants in a number of existing and emerging programs on the Seattle and Bothell campuses, and defined a role for SSNet in coordinating undergraduate courses in the humanistic studies of science and technology studies, and in developing an interdisciplinary graduate certificate in Science Studies. In the process, SSNet has contributed to the development of specific classes such as the Humanities Center sponsored course on "Science and its Critics" which is to be co-taught next Winter by faculty drawn from the School of Medicine and Comparative History of Ideas (Olsen and Thurtle). Finally, although we had originally planned to defer development of a substantial SSNet web-presence to our second year, there was such strong demand for a website that could actively facilitate the formation of an effective network that we have laid the foundation for a dynamic WWW site that includes a system of colloquium-based webpages (with pod casts, archived presentation materials, and discussion boards), linked to an innovative social networking system designed to put SSNet members in touch with those who share their interests.

Now that we have successfully catalyzed an expansive network of Science Studies faculty and graduate students at the University of Washington, we are ready to move the second phase of the project we outlined in our initial proposal. Our goals for the coming year are to:

- develop concrete plans for curricular development at the undergraduate and graduate levels;
- support a year long seminar for SSNet participants on themes captured by "Democratizing Science";
- launch a fully functioning interactive WWW presence that will serve all aspects of the SSNet and make its work available to external audiences.

PROPOSED ACTIVITIES AND PROJECTS

I. Science Studies colloquium: Democratizing Science

We propose to organize the 2008-2009 bi-weekly SSNet colloquium series as a faculty and graduate seminar on "Democratizing Science." This topic brings together three broad sets of issues that have proven to be particularly compelling for SSNet participants, captured by the subthemes: "science in democracy"; "diversity in science and the democratization of knowledge production"; and "normative claims for a democratic science." Each quarter next year we will take one of these subthemes as the focus for our meetings, coupled with substantive case studies that illustrate their implications for research practice, public engagement, and science policy in concrete terms. Seminar meetings will be organized around a set of common readings and, wherever possible, a working paper presented by a member of the seminar. We will recruit a working group of five SSNet faculty participants and one graduate fellow each quarter who will be responsible for setting the agenda for these thematic seminars. Finally, we propose to bring to campus one external speaker a quarter whose work we will be reading and who can address the issues we are discussing. What follows is, first, the conceptual rationale for this seminar with a short list of sample readings for each subtheme followed by a brief summary of case studies on which we could draw in developing the seminar agenda, then an outline of the seminar logistics and, finally, a list of prospective visiting speakers. We also plan to offer three graduate "micro-seminars" (2-credit, C/NC) linked to the three thematic components of the SSNet seminar, but the details on this aspect of the proposal follow in the section on Science Studies Curriculum and Program Development.

The Thematic Framework

Demands for forms of accountability and modes of practice that will "democratize" science are at once ubiquitous and highly contentious. On one hand, many take it as a given that the sciences must be insulated from the compromising influence of diverse public and political interests if they are to generate reliable, authoritative forms of knowledge and expertise. On this view, democratizing science, in the sense of opening the sciences to public scrutiny and demanding public accountability, seems to threaten their integrity. On the other hand, the sciences are often taken to exemplify democratic ideals of critical engagement; at its best, scientific inquiry is a model of rational, evidence-based deliberation that thrives on a diversity of perspectives and is open to critical insight wherever it originates. In this case, the active involvement of diverse public perspectives would seem to be crucial to well-functioning science, rather than to risk compromising it. Intersecting these divergent views is an equally long tradition of debate about the role of scientific expertise in the context of public, democratic deliberation on matters of policy, and about issues of accountability. The suspicion that narrowly scientific research agendas do not serve the social good (or, indeed, may often contravene public interests) routinely gives rise to demands for oversight of the sciences, and to deeply held reservations about ceding authority to scientific experts, even in matters where wise decision making depends on an adjudication of technical matters that few members of the lay public can assess. The overarching theme of "democratizing science" thus encompasses a range of issues that cluster in the following three areas.

Fall Quarter 2008: Science in Democracy

The role of scientific experts and expertise in democratic deliberation has long been a matter of sharp contention. For example, how can the power of scientific inquiry be effectively mobilized for the public good without ceding authority to scientific experts? And how can the technical advice of these experts be adjudicated by non-experts? Also at issue are concerns about accountability: in what ways should the sciences (and scientists) be accountable to the range of public stakeholders who are affected by the practice, authority, products and applications of various sciences? This debate has roots, in the American context, in Deweyan pragmatism and is a central concern both for political theorists concerned with effective deliberative process within democracies, and for contemporary science studies scholars working on questions about the role of contextual values in the sciences. Pivotal to these debates is a recognition that extra-scientific values and interests shape not only the agenda for scientific inquiry but more integrally, the actual practice of science. Sample readings include selections from the following:

Geoffrey C. Bowker and Susan Leigh Star. 1999. *Sorting Things Out: Classification and Its Consequences*. Cambridge MA: MIT Press.

- Jasanoff, Sheila. 2005. *Designs on Nature: Science and Democracy in Europe and the United States*. Princeton NJ: Princeton University Press.
- Jasanoff, Sheila, ed. 2004. *States of Knowledge: The Co-production of Science and Social Order*. London: Routledge.
- Kincaid, Harold, John Dupre, and Alison Wylie, eds. 2007. *Value-Free Science?: Ideals and Illusions*. Oxford: Oxford University Press.
- Lacey, Hugh. 2005. *Values and Objectivity in Science: The Current Controversy About Transgenic Crops*. New York: Rowman and Littlefield.
- Miller, Clark and Paul N. Edwards. 2001. *Changing the Atmosphere: Expert Knowledge and Environmental Governance*. Cambridge MA: MIT Press.
- Mirowski, Philip, and Esther-Mirjam Sent, eds. 2002. *Science Bought and Sold: Essays in the Economics of Science*. Chicago: University of Chicago Press.
- Strathern, Marilyn, ed. 2000. *Audit Cultures: Anthropological Studies in Accountability, Ethics, and the Academy*. New York: Routledge.
- Westbrook, Robert 1991. *John Dewey and American Democracy*. Ithaca NY: Cornell University Press.

Winter Quarter 2009: Diversity in Science and the Democratization of Knowledge Production

Running parallel to this debate about the role of science in democracy is a long tradition of critical reflection within the sciences, and in scholarly and popular commentary on the sciences, in which scientific practice is presumed to exemplify ideals of democratic deliberative process. The open exchange of ideas, the high value placed on public communication of the results of inquiry and the grounds for claiming them, and the emphasis on collective practices of critical scrutiny and responsiveness to criticism are all characteristics of science (in the ideal) that are taken to model well functioning democratic processes. Dewey characterized democratic deliberation as an experimental process, while contemporary “proceduralist” theorists of science like Longino and Kitcher reframe ideals like objectivity in terms of well functioning processes of community engagement which ensure that scientific inquiry draws on a rich and diverse a range of epistemic resources as possible.

There is considerable tension between these inclusive ideals and equally influential conceptions of science as an enterprise that requires consensus within closely circumscribed communities of practitioners, as canonized by Kuhn’s account of paradigm-governed normal science. A growing body of historical and socio-cultural scholarship throws into relief a range of ways in which, in actual practice (rather than as a matter of normative ideals) the sciences depend on novelty and diversity: knowledge ratified as scientific is generated in a variety of transnational contexts; circulated in disciplines thought to be outside of science, such as the arts and humanities; and produced with multiple forms of labor, including bench work, clinical, technical, statistical, and computational labor. Another context in which science studies scholars have considered the role of diversity in science is in studies that reveal the contributions of groups normally excluded from official accounts of science on the basis of their gender, race, class, or nationality. A crucial resource here are explicitly policy-oriented studies of systemic inequities in patterns of recruitment and retention of women and minorities in the STEM disciplines.

In the seminar meetings planned for this quarter we have two goals: one is to tease out and to systematically compare the conceptions of deliberative process that science studies scholars have proposed as a basis for understanding well-functioning science; and the other is to connect analyses of institutional inequities in science with historical and cultural studies that throw into relief the crucial contributions made to the sciences by diversity among its practitioners and in the epistemic resources. Sample readings include:

- Daston, Lorraine, and Peter Galison. 2007. *Objectivity*. New York: Zone Books.
- Epistemic Diversity and Dissent I and II*, special issues of *Episteme, Journal of Social Epistemology*, Volumes 3.1 and 3.2 (ed. Alison Wylie) and Volume 3.3 (ed. Christian List).
- Fricker, Miriam. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press.
- Kellert, Stephen H., Helen E. Longino, and C. Kenneth Waters, eds. 2006. *Scientific Pluralism*. Minneapolis: University of Minnesota Press.
- Kitcher, Philip. 2001. *Science, Truth, and Democracy*. New York: Oxford University Press.
- Longino, Helen. 2001. *The Fate of Knowledge*. Princeton NJ: Princeton University Press.
- Sunstein, Cass R. 2003. *Why Societies Need Dissent*. Cambridge MA: Harvard University Press.
- Young, Iris Marion. 2000. *Inclusion and Democracy*. Oxford: Oxford University Press.

Spring Quarter 2009: Normative Claims for a Democratic Science

Complementing these first two themes is a set of normative questions about why the sciences should be “democratized.” Under the rubric of this third theme we focus on questions about how the epistemic resources of diverse communities—within and outside the conventional boundaries of established scientific disciplines—can most effectively be deployed in the practice of science. The expansive literature on interdisciplinarity addresses this nexus of issues with respect to ways in which the technical tools, skills, and knowledge of disparate fields are integrated into scientific training and practice, with varying degrees of success. We extend this line of inquiry. Drawing on philosophical analyses that characterize deliberative process as a key regulative ideal for science and on the historical and cultural studies of science that bring into view the central role of situated diversity in scientific practice, we ask how effective interdisciplinary engagements can be extended beyond scientific communities.

In the seminar meetings this quarter we will consider examples of collaborative research practice in which publics of various kinds figure, not just as beneficiaries of or a material resource for scientific inquiry, but also as active partners in the research process, from setting the agenda for a research program through all stages of empirical investigation to the dissemination of results. The challenge is to specify conditions of best practice, and to clearly identify what is to be gained epistemically, as well as socially or politically, from various forms of reciprocity, accountability, and research partnership. Our aim, in engaging the practical and ethical implications of these interdisciplinary (or extra-disciplinary) collaborations, is to develop models for democratizing research practice that may offer useful guidance to those working in the sciences, and to their publics. Sample readings include:

Collins, H. M., and Robert Evans. "The Third Wave of Science Studies: Studies of Expertise and Experience." *Social Studies of Science* 32, no. 2 (2002): 235-96.

Burgess MM, O'Doherty K. (2007) Deliberative Public Engagement Related to Governing Biobanks: Final Report. Electronic Working Papers Series. W. Maurice Young Centre for Applied Ethics, University of British Columbia at www.ethics.ubc.ca.

Dryzek JS and Niemeyer S. (2006) Reconciling Pluralism and Consensus as Political Ideals. *American Journal of Political Science*, 50 (3): 634-649.

Epstein, Steven. 2007. *Inclusion: The Politics of Difference in Medical Research*. Chicago: University of Chicago Press.

Sharp RR and Foster MW. (2007) Grappling with Groups: Protecting Collective Interests in Biomedical Research. *Journal of Medicine and Philosophy*, 32 (4): 321-337.

Stokols D. (2006) Toward a Science of Transdisciplinary Action Research. *American Journal of Community Psychology*, 38 (1-2): 63-77.

Lucy Suchman, *Human-Machine Reconfigurations: Plans and Situated Actions* (Cambridge University Press, 2006).

Terry SF, Terry PF, Rauen KA, Uitto J, and Bercovitch LG. (2007) Advocacy Groups as Research Organizations: the PXE International Example. *Nature Reviews Genetics*, 8 (2): 157-164.

Anchoring Case Studies

One of our central goals is to develop a rigorous analysis of the meanings of “science” and “democracy” that are at work in the themes and literatures with which we will engage; we do not take the terms of this project uncritically. At the same time, we intend to move beyond the conceptual and social-historical interrogation of what it means to “democratize” science. As indicated, our aims are practical as well as theoretical; we hope to strengthen the potential for instituting productively diverse and democratic forms of scientific inquiry, in the process, building bridges between scientists and science studies colleagues, practitioners and theorists, and others who share the concern that nothing is more important, at this juncture, than to cultivate “well functioning” forms of science—sciences capable of realizing their full epistemic and social potential. Given these “interventionist” goals, it will be important to ground discussion of the three subthemes outlined in a consideration of topical cases. We have identified several cases that have the potential to intersect with each sub-theme of democratizing science and will select among them when we have recruited the core participants who will be charged with refining the reading lists and topics for each component of the seminar (details on this process to follow).

Food, Biosecurity, and Expertise

A growing number of STS scholars are addressing the issue of food and science, both as matters of intense contemporary concern—in a period characterized by concern with biosecurity, GM crops, BSE, vegetarianism, factory versus organic farming, and the so-called obesity epidemic—and in connection with historical studies of the ways in which science has been implicated in, and shaped by, the definition, production, distribution and consumption of food. Examples of how various publics have responded to changes in food manufacture and technologies powerfully illustrate the dilemmas of dependence upon and mistrust of scientific expertise in the formation of consequential public policies. Food crises such as the BSE (mad cow disease) of the 1990s bring sharply into focus questions about the integrity and credibility of scientific expertise. Historical studies of the evolving practices of regulating and taxing food raise a series of closely related questions: how should state demands shape the nature of food production and the quality of food?; who may judge quality authoritatively – producers, consumers, or scientists?; how is the adulteration or contamination of food to be managed, and who decides what counts as adulteration?

From Garage Biology to Biobank Governance: Biomedicine and Our Biofutures

Rapid technological advances in the life sciences, particularly genomics, ecogenetics, and synthetic biology, are fundamentally altering our understanding of human biology and the intrinsic and extrinsic forces that shape health and disease. Until recently the role of the “public” in such sciences has been restricted almost exclusively to that of beneficiary or as a source of raw material for the research enterprise; non-experts have had little direct involvement in the choice of research questions to pursue, no say in how research would actually be done, and no expectation of being included in the dissemination of eventual research findings. In a great many social and institutional contexts, however, these relationships are changing in consequential ways. Three quite different modes of public engagement with biomedical science offer an especially promising ground for addressing questions about democratic participation and accountability: the highly centralized control of biological samples (human tissue and genetic material) represented by the mechanisms of biobank governance; the emergence of “garage biology” in the form of personal genomics and related do-it-yourself uses of emerging biomedical technologies; and the proliferation of community-based forms of participatory research in the biosciences that challenge the oppositional structures represented by these first two options.

Media and Participatory Practice: Knowledge Networks

The widespread inclusion of new digital technologies and media in scientific practice presents unique challenges and opportunities for understanding participatory knowledge production. A number of once fundamental distinctions must be rethought. No longer can we take for granted the distinction between those who produce and those who consume scientific knowledge, nor can we sharply segregate the contexts in which knowledge is justified from those of its discovery and application. Patterns of access to scientific knowledge, the dynamics of scientific communities, and structures of epistemic authority within them, are all affected by the role of new media technologies in knowledge production. Several examples promise an especially rich ground for considering the democratizing effects of digital media-based knowledge production but one that is of particular interest is one is the development and management of Wikipedia, and the use of wiki platforms in research contexts more generally.

Eugenics in Washington: Memory, Ideology, and Legacy

This is a symposium project, proposed for Simpson Center funding by Joanne Woiak in conjunction with three co-organizers one of whom has played a central role in development of the Science Studies Network (Phillip Thurtle). If funded, this one-day symposium on the eugenics movement, and the associated speakers, would provide a powerful case in terms of which to consider the questions about scientific expertise and public policy that are central to the “Democratizing Science” seminar we propose, especially the first quarter seminar on “Science in Democracy.”

Interdisciplinary Social Science Approaches to the Study of the Experience and Participation of Ethnic Minorities in STEM Fields

This project is currently in progress, under the direction of Angela Ginorio, with support from the Sloan Foundation. Ginorio has requested support for a seminar and lecture series related to this project from the Arts and Sciences Exchange Program. It is a study of ways in which disciplinary conventions in the

social sciences contribute to the difficulty of documenting the presence (and absence) of underrepresented minorities in various fields in the sciences, technology, engineering and medicine. If funded, the lecture series would complement the goals of the SSNet seminar, especially in the final two quarters of the year.

Seminar Format and Logistics

The proposed seminar will meet on a bi-weekly basis, just as the SSNet colloquium has done this past year. Instead of panel presentations designed to provide an overview of diverse areas and topics within science studies, however, we envision this three-part seminar as a focused engagement with more closely specified issues and literatures. We plan to restrict attendance to 20 participants, and to organize discussion around pre-circulated articles or working papers that all participants will be expected to read in advance.

To establish continuity in attendance, each quarter we will recruit a core of five faculty participants and one advanced graduate fellow who have particular interest and expertise in the subtheme (and/or related case studies) under discussion in that segment of the seminar. They will be charged with setting the agenda, refining reading lists, and convening the seminar meetings related to the subtheme that is their particular focus. At the same time, however, we will advertise these meetings to the Network as a whole so that 15 additional participants can attend the seminar (on a first come, RSVP basis). It is our hope that this will allow us to maintain, to some degree, the inclusiveness and fluidity in participation that worked so well for the SSNet colloquium this past year while developing a more sustained and focused discussion among those who have serious interests in the issues captured by theme “democratizing science.”

We propose to recruit these core faculty and graduate participants through a process of application. We will advertise the seminar as a whole on-line and through the SSNet e-mailing lists as early as we can (as soon as we know that it has support) and, one quarter in advance of each segment of the seminar, we will issue a call for submissions in which we ask prospective core participants to provide us a brief resume and statement of interest. It will be a priority to recruit participants who have experience working in interdisciplinary contexts and are committed to engaging the details of scientific practice as well the as science studies literatures we will be discussing. We recommend that the faculty participants be offered a modest honorarium, and that the graduate fellows be awarded a one-quarter research fellowship.

Visiting Speakers

A number of high profile science studies scholars have addressed the issues we propose to take as the focus for our 2008-2009 SSNet meetings, most of them speakers we identified as a high priority for the Network as a whole in our initial proposal. We have secured funding, through the Walker-Ames Scholar program (sponsored by the Graduate School), for one especially pivotal contributor to discussions of democratic ideals of deliberative process in science:

Helen Longino, Stanford University (Philosophy)

The author of *Science as Social Knowledge* (Princeton, 1990), and *The Fate of Knowledge* (2001), Longino argues that social, contextual values play an irreducible role epistemic judgment, but defends a robust “constructive empiricism.” She has recently made the case for reconceiving ideals of objectivity in procedural terms, and has articulated a set of requirements for democratizing scientific practice in ways that ensure broad-based, effective critical engagement—what she has described elsewhere as “transformative criticism.”

- proposed visit: Winter quarter 2009 as Walker Ames Visiting Scholar.

Other distinguished external visitors we would consider for the Fall and Spring quarters include:

Geoffrey Bowker, Executive Director of the Center for Science, Technology and Society; Regis and Dianne McKenna Professor, Santa Clara University:

A sociologist of science and a pioneer in the study of memory practices in science, Bowker offers a comparative perspective on information infrastructures and storytelling practices in sciences as diverse as 19th century geology, mid-20th century cybernetics, and contemporary environmental science. He is the architect of a research Center the goal of which is to study and to promote “the use of science and technology for the common good.” He would bring an especially valuable perspective to bear on the topics slated for discussion in the Spring quarter.

Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Kennedy School of Government, Harvard University

A pivotal contributor to research on the role of science and technology in modern democracies (in the law, in politics, and in public policy), Jasanoff has written on problems of environmental regulation, risk management, and biotechnology in global context. Recent essays include “Technologies of Humility” (*Nature* 2007); and relevant books include *The Fifth Branch: Science Advisers as Policymakers* (1998), *Science at the Bar* (1997), *States of Knowledge: The Co-Production of Science and Social Order* (2007). She would be an ideal visitor in the Fall quarter, as a science studies scholar whose work has defined contemporary understanding of “science in democracy.”

Evelynn Hammonds, Rosenkrantz Professor of the History of Science and Professor of African and African American Studies; Senior Vice Provost for Faculty Diversity Harvard

Originally a physicist, Hammonds has done groundbreaking feminist and race critical research on the role of racial categories in medical research, and on racist institutions in science and medicine generally. She has done pivotal work on equity issues in the sciences and academia as the Senior Vice Provost for Faculty Diversity at Harvard since the position was created in 2005. She would be an especially valuable contributor to discussions of “diversity in science” in the Winter quarter.

Timothy Lenoir, Kimberly Jenkins Chair for New Technologies and Society, Duke University

Until recently the chair of Stanford’s History and Philosophy of Science and Technology Program, Lenoir now manages the innovative Duke Collaboratory. He is particularly interested in the impact of computers on biomedical research, and has recently focused on the role of visualization technologies. He makes innovative use of digital media technologies in oral history/documentary projects on Silicon Valley and the development of bio-nanotechnology, and he is interested in exploring the potential for sustained civic engagement on scientific and technological issues. He could contribute to discussions of “science in democracy” in the Fall, and of “normative claims for democratizing science” in the Spring.

Naomi Oreskes, Department of History and Science Studies Program, UC-San Diego

Oreskes is a highly productive historian of the earth sciences who originally studied the processes by which consensus shifted to theories of continental drift and plate tectonics, but has recently turned her attention to the political and economic factors shaping public response to the science of global climate change. She published a widely cited essay on “The Scientific Consensus on Climate Change” in *Science* (2004), that became the point of departure for a study of the mechanisms by which public mistrust of climate science has been systematically cultivated. She would bring an invaluable perspective to bear on the politics that structure the reception of scientific expertise, relevant to discussion in the Fall quarter.

Steven Shapin, Franklin L. Ford Professor of History of Science

Shapin’s key publications, *Leviathan and the Air-Pump* (with Schaffer), *A Social history of Truth* are now classic examples of how the historical sociology of scientific knowledge can illuminate the formation of epistemic ideals that we often take as a given (truth, objectivity, the fact:theory distinction). He is currently working on dietetics, and on norms of scientific expertise and ideals of personal virtue in late modern America. He would be an ideal visitor in either Fall or Winter.

II. Science Studies Curriculum and Program Development

One of our primary aims in developing the Science Studies Network has been to explore the potential for developing a coordinated interdisciplinary science studies program at the University of Washington that could bring together the separate initiatives of those already teaching science studies at the undergraduate and graduate level. In our plans for the first year of the Network, we proposed to begin by undertaking a comprehensive audit of science studies offerings at UW, and by reviewing models of existing science studies programs at other institutions. This phase of background research was to culminate in a Town Hall meeting, early in the Winter quarter, in which we would present our findings and chart a course forward. The graduate assistant supported by our Simpson Center project grant, Brandon Olsen, was to play a central role in collecting this background information and orchestrating the planning process. In the event, the enormous response to SSNet colloquia, the immediate demand for a functional website, and the planning and logistical support required by our two co-sponsored conferences, has dominated our attention and that of our graduate assistant. We have not been able to develop as comprehensive catalogue of science studies courses as we had hoped; nonetheless, we have made significant progress on a number of fronts.

Early last Fall a number of SSNet participants urged us to set up an on-line list through which they could distribute information about their current and projected science studies course offerings. We have invited postings several times through the year and now host a growing list of science studies courses. In addition, we have been struck by how frequently curriculum issues came up in SSNet colloquia, even when it was not the focal topic of discussion; we learned a great deal, in the course of the year, about current and emerging programs in which SSNet participants are involved, and we compiled an ambitious list of proposals for courses and curriculum development. When we held a dedicated meeting on curriculum issues at the first of the Spring quarter (on April 7th), we were in a position to provide thumbnail sketches of four undergraduate programs either in place (the major History and Philosophy of Science, Arts and Sciences, UW-Seattle; and the Minor in Medical History and Ethics, School of Medicine, UW-Seattle), or under development (the BSc in Integrated Sciences, Arts and Sciences, UW-Seattle; and the Integrated Arts and Sciences program in Science Technology and Society, UW-Bothell); to report on meetings with graduate student participants in SSNet (who have formed their own working group) and affiliated with the Forum on Science, Ethics and Policy; and to outline half a dozen quite specific recommendations for curriculum development that had emerged in feedback from SSNet participants and in colloquium discussions (see Appendix II for the summary we circulated at this meeting as a basis for discussion). At this meeting there was a great deal of useful exchange about existing or emerging programs—their design, the constituencies they serve, faculty experience teaching in them—but little was added to the list of initiatives we outline and we quickly reached broad consensus on the central questions about goals and priorities that we posed.

The upshot is that, in this second year of the Science Studies Network our aims are: (1) to lay the foundation for developing an interdisciplinary graduate certificate in science studies and to seek NSF funding for a “small research and training grant” that could serve as a platform for developing a more ambitious IGERT grant proposal and consortium graduate program in the longer term; (2) to take on the role of developing a catalog of existing courses and a suite of new courses at the undergraduate level that can serve a navigational and integrative role for students interested in science studies, especially students coming to the field from the humanities and social sciences. The specific activities we propose are as follows.

Navigational Tools

In the next year we would like to take up, in earnest, the project of developing a comprehensive catalog of existing curricular resources in science studies and guide to faculty involved in teaching or developing curriculum in science studies at the University of Washington. Although we have a good foundation for this, in the form of the SSNet participants’ on-line listing of current offerings in the area, we have learned that relevant courses are to be found across the whole of the university making this a more demanding project than we originally anticipated. Such a catalog will serve a number of purposes. It will bring together the separate initiatives of FoSEP at the graduate level and of the four separate undergraduate programs now in place or in prospect, providing students already at the university a ready

means of finding and building portfolios of STS courses. As participants in the Town Hall meeting pointed, such a catalog would also serve as a recruiting tool for graduate students considering programs in the various fields in which science studies is taught at UW; it would showcase the strength of STS offerings across departments at UW. And it will be a crucial basis for identifying specific niches in which SSNet participants might most usefully develop new course offerings. Funding for a GRA position that will allow our current graduate assistant to build on the foundation he has laid will be absolutely critical to success in this project.

Undergraduate Initiatives

Given what we have learned about existing programs and courses, the area in which we believe SSNet can make its greatest contribution at the undergraduate level is in the development of interdisciplinary courses that introduce humanities and social science-centered approaches to STS; our goal would be to develop courses that complement the more science-centered offerings of existing programs and that serve as a point of entry to STS for humanities and social science students. For example, the existing Major in History and Philosophy of Science requires a significant number of science credits, on the principle that science cannot be studied adequately without a substantial grounding in scientific knowledge and practice. Students who wish to pursue the study of science as a major component of their studies are well served by this program, and will no doubt find attractive the proposed BSc in Integrated Sciences, but there remain many science students who seek one or two courses to give them a humanities perspective on science, and humanities students who seek a basic understanding of contemporary scientific issues through an STS course. Continued funding for the existing GRA position will enable us to set up and provide support for a task force charged with developing plans for two to three interdisciplinary undergraduate courses designed to meet these needs.

Graduate Program Initiatives

There was strong consensus that the area in which SSNet stands to make its most distinctive contribution to science studies at UW is in the development of a strong interdisciplinary graduate program in science studies. We have begun to assemble information about models for such a program through meetings with visiting speakers who direct well established programs at other institutions (Epstein on the Science Studies Program at UC-San Diego; Cartwright on History and Philosophy of Science at LSE), and discussions among ourselves (collectively SSNet participants have direct experience as students or faculty in virtually all the major graduate programs in science studies). While we still have much to learn, it is increasingly apparent that, as a long-term goal, an ideal model for science studies at UW is most likely the consortium model best exemplified by the program at UC-San Diego. On this model students apply for graduate study through participating departments; the program offers them partial funding and they pursue a course of study that includes a core of required Science Studies seminars as well as the courses from their home department and Science Studies-related courses from across the campus.

As a point of departure for developing such a program at UW, we propose to lay the foundations for a graduate certificate in Science Studies. To this end we have three projects in view for the coming year that are designed, first, to support the development of interdisciplinary courses at the graduate level that could serve as core seminars in a prospective Science Studies certificate and, second, to explore the potential for establishing the necessary infrastructure to sustain a graduate program.

1. Pilot Graduate Core Courses: Micro-Seminars on "Democratizing Science"

We would like to give graduate students interested in the various topics central to the SSNet seminar on "Democratizing Science" the option of registering for a 2-credit (C/NC) "micro-seminar" in each of the quarters in which we plan to run the three segments of this seminar next year. These would be taught by the faculty involved in organizing the seminar. In addition to attending the bi-weekly SSNet seminar meetings, students registered in these micro-seminars will participate in two additional graduate seminar meetings each quarter and will be expected to develop a series of short discussion papers. Depending on the response to these micro-seminars, they could (collectively, or individually) serve as the basis for developing one component of the core curriculum of an interdisciplinary graduate certificate.

2. Graduate Colloquium and Working Group

In the course of this last quarter Simon Werrett has organized an ongoing series of meetings with graduate students from several disciplines (Anthropology, Communication, English, Education, History, and Philosophy), initially as a forum for discussing how an STS program might benefit graduate studies. We envisage developing these meetings into a regular forum for graduate students to discuss seminal readings in science studies, to present their work, to learn new research methods, and to build a community of interest. In the context of an interdisciplinary graduate program these meetings would constitute the central point of connection among graduate STS students based in different cognate departments. In the next year we will look to these informal meetings as a source of advice from current graduate students about the areas in which we might most usefully develop seminars that will complement their disciplinary programs of study.

3. Pacific Northwest Summer Institute for Graduate Studies in STS

In our initial, 2007-2008 proposal we outlined plans for a retreat to be convened in the early Fall 2008. This was to be a meeting of the projected curriculum planning group the purpose of which was to take stock of what we had learned in our first year about the prospects for developing a coordinated Science Studies curriculum at UW and to chart a course forward. Although we have done less than we had hoped by way of compiling background information, we have achieved much more where establishing a clear agenda for curriculum development is concerned. Consequently, rather than a Fall retreat to review the situation, we propose to convene a Pacific Northwest Summer Institute for Graduate Studies in STS which we hope will become an annual tradition.

We envision a five day workshop in July 2009 designed to bring together four or five faculty and 10 to 12 graduate students with interests in science studies, drawn from graduate programs at universities in the Pacific Northwest. SSNet faculty in a number of areas of science studies have strong ties to colleagues in the region, especially those teaching in graduate programs at the University of British Columbia and Simon Fraser University: the philosophers of science regularly organize a one day conference together; the historians support a long-standing tradition of regional meetings at Friday Harbor; and active cross-collaborations have developed among faculty who study the social impact of new medical and genetic technologies. There has long been an interest among the historians and philosophers of science in finding a way to bring our collective resources together for both research and teaching purposes. A summer institute in 2009 would provide graduate students and faculty alike an opportunity to learn about one another's interests, to make connections across institutions, and to articulate plans for a graduate program at the University of Washington that might ultimately be one component in a regional consortium.

For this first Summer Institute we will advertise regionally to faculty and graduate students working in any area of science studies, with the aim of recruiting participants who represent a cross-section of SSNet interests. In future years we may want to specify a topic area and rotate topics year by year, but our aim this year is to create an environment in which, as in the first year of the SSNet colloquia, we can explore the range of interests on which such an Institute can draw in the future, and foster cross-fertilization between disciplinary subfields. The format will be workshop sessions organized around precirculated work-in-progress manuscripts and complementary readings, with substantial unstructured time for informal discussion. We expect to devote at least one session to focused discussion of the existing regional resources for graduate training in science studies, and of strategies for building an effective collaborative network among science studies scholars in the Pacific northwest.

III. Science Studies Network On-line

From the outset we recognized that, in order to establish a strong presence for Science Studies at the University of Washington, it would be crucial to develop the infrastructure for a website that could not only serve as a bulletin board for SSNet activities but that would make accessible—to faculty, and to current and prospective students—the range of research and teaching projects in which SSNet participants are involved, and that might ultimately serve as a gateway to science studies resources on campus more generally. We initially proposed an iterative process of web development, beginning with a site that would document the proceedings of the SSNet colloquium itself, gradually expanding its scope as we identified science studies resources on campus; we expected to defer development of these latter functions to our second year.

As indicated, however, in the context of our first planning meeting, in October 2007, prospective participants in the Network made it clear that they saw the development of an expansive, interactive website as an integral part of the project as a whole and urged that we make this a top priority. Although we did not receive support for a dedicated web design assistant in our first year, the Graduate Assistant we appointed (Brandon Olsen) does have substantial web-development skills and, with the help of the Digital Media Working group (especially Clifford Tatum, a graduate student in Communication), he has been able to build a provisional website that has served the Network extremely well in its first year. SSNet has used web resources to support its activities in a number of important ways:

- 1) along with our growing electronic distribution lists, it is the primary means by which we announce network colloquia and workshops, and it supports an RSVP function for many of these events;
- 2) it serves as a media rich archive of colloquium podcasts, lecture and discussion notes, and a range of other resources from SSNet colloquia and related events;
- 3) it offers an interactive platform on which SSNet can host on-line exchanges among participants that extend the face-to-face discussions that take place at SSNet colloquia;
- 4) it provides the backbone for a scholarly social networking site complete with member identification through keyword tags and the display of these tags in tag clouds;
- 5) it provides, in prospect, an online exhibition space in which to showcase work in the digital humanities that members of the Science Studies Network are undertaking, to include a study of the development of the Network as well as an interactive database documenting the history of genetics in relationship to theories of development.

The success of these initial developments, along with feedback from SSNet participants over the past year, make it clear that we have the potential to serve many constituencies in a number of different ways if we can expand this platform so that it successfully integrates these various functions within a single web presence. This will require some dedicated web support; we are now at a critical juncture where design of the architecture of the site is concerned. We propose a year-long project the aim of which will be to expand the functionality of the existing website in all the areas identified above, with the aim of serving more effectively the following constituencies.

UW Undergraduate/Graduate Students (Curriculum-Based Development)

It is clear that students will benefit greatly if we can provide a consolidated guide to science and technology studies courses, along lines outlined above. The navigational function we hope to serve, for both graduate and undergraduate students, will be most effectively realized if we can establish an on-line archive that is searchable and interactive, linked to current course descriptions and information about frequency (as provided in existing UW course databases). As we move toward the development of new courses and programs the established web presence of an SSNet-supported archive and set of navigational tools will be crucial, both as a resource for their effective design and for purposes of advertising them.

SSNet Colloquia and Public Events Participants (Networking-Based Development)

SSNet participants have expressed particular interest in a website that provides mechanisms for them to find other members of the network who share their research interests; while they agreed that a static directory would be a help, they very strongly urged that we develop interactive networking tools. Led by Clifford Tatum, we are currently developing a Facebook application that has the capacity to establish an

on-line community organized around self-identified research interests. This application has the potential to build our online presence which, in turn, will make it possible for SSNet participants to collaborate on aspects of both research and teaching (sharing working papers, research materials, course syllabi), as well as providing a space for interdisciplinary discussion.

Democratizing Science Seminar Participants (Archiving-Based Development)

As indicated, the SSNet website already serves a useful role in archiving the activities of the network, allowing those who miss colloquium meetings to stay involved in the ongoing conversation, and offering access to working materials for those outside of the network. As we develop the thematically focused seminar we propose on “Democratizing Science” in the coming year, this role of the SSNet website has the potential to become even more important. We will continue to digitally record SSNet colloquia and public lectures, and make them available on the SSNet website in the form of podcasts (in the case of the colloquia) and, if possible, streaming video (in the case of public lectures). We expect the core participants in each quarter of the 2008-2009 seminar to host an interactive blog so that seminar discussions can continue on-line after the fact and with an extended audience. We also expect to develop a set of open-source electronic archives in which participants can post seminar papers, discussion notes, and other resources related to the broad themes of the seminar. We are especially interested in assembling materials, like reading lists, syllabi, and discussion outlines, that will be useful to anyone interested in developing courses on topics addressed by the seminar. Our focus will be on creating a hub with on-line resources and a network of links relevant specifically to “democratizing science,” in a form that helps to realize the types of “knowledge networks” and digital media-facilitated participatory practice that are the subject of the third case study outlined and, potentially, of the third segment of the seminar. We expect this dimension of the project to take shape through the year and to become a lasting resource for the science studies community at the University of Washington and well beyond.

Outside Constituencies (Developing a Science Studies Gateway)

An admittedly ambitious goal, but one easily viewed as a natural extension of the Network’s current activities, is to establish a gateway for Science and Technology Studies that is designed to serve a larger, national and international community. There are many different forms such a gateway might take, but the existing and projected functions of the SSNet web presence (especially research-based networking, curriculum navigation, and scholarship archiving functions) translate straightforwardly into web-based resources that could serve the needs of a much larger community of scholars.

APPENDIX I

SCIENCE STUDIES NETWORK ACTIVITIES – 2007-2008

For details and archived podcasts, discussion and presentation notes, see the SSNet website:
<http://depts.washington.edu/ssnet/>

SSNet colloquia are held on Mondays 12:00-1:20, in the Simpson Center seminar room (CMU 202).

** denotes workshops, events of related interest, and informal SSNet discussions with visiting speakers.

FALL 2007

October 1: **Planning meeting**

- an overview of plans for the network and brainstorming session

October 15: **Current Directions – History and Philosophy of Science**

Panelists: Arthur Fine (Philosophy), Simon Werrett (History), Andrea Woody (Philosophy)

October 29: **Current Directions – Cultural Studies of Science**

Panelists: Ann Anagnost (Anthropology), Malia Fullerton (MHE), Phillip Thurtle (CHID)

** October 29: **Digital Media** working group meeting

** November 7-8: **Steve Epstein**, UCSD (CMH Lecture at 4:00)

- November 8: breakfast discussion of program development with SSNet organizers

** November 9: **Miriam Solomon**, Temple (Philosophy Colloquium at 4:00);

- November 9: lunchtime discussion with Miriam Solomon: CMH, Philosophy, SSNet

November 19: **Current Directions: Research Ethics, Equity, and Policy Issues in Science**

Panelists: Kelly Fryer-Edwards (MHE), Angela Ginorio (Women's Studies), Suzanne Ortega (Graduate School), Matthew Weinstein (UW-Tacoma)

December 3: **Synthesis / Discussion**

WINTER 2008

** HUM596 "Presuppositions of Practice: Philosophical Issues in the Social Sciences"

A graduate micro-seminar on Roundtable topics and speakers (2 credit, C/NC)

Instructor: Alison Wylie 3:00 Mondays (bi-weekly)

January 14: **Scientists' Perspectives on STS**

Panelists: Neil Banas (Oceanography), Vladimir Chaloupka (Physics), Maynard Olsen (Medical Genetic/Genome Science), Woody Sullivan (Astronomy)

January 28: **Democratizing Science**

Organizers: Sarah Elwood (Geography), Alison Wylie (Philosophy)

Panelists: Sarah Elwood (Geography), Mott Greene (Science, Technology & Society, UPS)

Mark Purcell (Urban Design and Planning), Alison Wylie (Philosophy)

** February 4: Workshop on "Science: Breathtaking Promises and Dangers. Can the Humanities Help?"

Organizer: Vladimir Chaloupka

February 11: **Media, Technology, and Science**

organizer: Phillip Thurtle (CHID) and the Digital Media Working Group

panelists: Gina Neff (Communications), Walter Ruzzo (Computer Science & Engineering), David Stearns (University of Edinburgh), Clifford Tatum (Communication)

February 25: **Collaborative Practice / Interdisciplinary Practice**

organizers: Celia Lowe (Anthropology)

panelists: Sara Jo Breslow (Anthropology), Brian Brown (Medical Education & Biomedical Informatics), Suraya Afiff (Karsa Institute), Celia Lowe (Anthropology)

** March 7-9: **Philosophy of Social Science Roundtable**

** March 6-10: **Nancy Cartwright** (LSE, UC-SD), Walker Ames lecturer

- March 6: Walker Ames public lecture, "Evidence Based Policy: So What's Evidence?"
- March 8: Roundtable keynote, "Hunting Causes and Using Them"

March 10: **SSNet discussion with Nancy Cartwright** (LSE, UC-SD)

Organizer: Alison Wylie (Philosophy)

- precirculated readings: "Against 'The System'" and "The Rational Structure of Physics: What Allows for Consistency with Empirical Reality?" (both forthcoming)

SPRING 2008

April 7: **Curriculum Initiatives - Town Hall Meeting**

Organizers: Alison Wylie (Philosophy) and Brandon Olsen (Philosophy; SSNet GRA)

April 16 (11:00-12:30): **SSNet discussion with Richard Lewontin** (Harvard), Danz Lecturer

Organizer: Stephanie Fullerton (MHE)

- precirculated readings: "Dishonesty in Science" (*New York Review of Books* 2004), and "Legitimation is the Name of the Game" (forthcoming)

April 21: **Science and Art**

Organizers: Phillip Thurtle (CHID), Simon Werrett (History), Richard Karpen (DXArts)

Panelists: Simon Werrett (History), and Stephanie Andrews (DXArts)

May 5: **Graduate Student Forum**

Co-ordinator: Simon Werrett

May 12: **Multi-Disciplinary Perspectives on Scientists of Color**

Organizers: Angela Ginorio and the Sloan Inter-disciplinary Social Science Research Group

May 19: **Technoscientists in the Making**

Organizer: Reed Stevens (Education)

June 2: **How Do We Study Science?**

Discussion with Paul Wouters (Erasmus Virtual Knowledge Studio, Amsterdam)

June 5-7: **Expanding Interdisciplinarity Conference**

Organizers: Kelly Fryer-Edwards and Alison Wylie

APPENDIX II

SSNET CURRICULUM INITIATIVES

TOWN HALL MEETING

April 7, 2008

The goal of this meeting of the Science Studies Network is to take stock of what SSNet might contribute to the existing range of programs and course offerings in the three thematic areas of SSNet interest:

- history and philosophy of science;
- cultural studies of science;
- research ethics, equity issues in the sciences, science policy.

This was one key area we identified as a focus for SSNet activities in our 2007-2008 proposal. We have done some preliminary work collecting information about existing curricular resources and soliciting suggestions about interdisciplinary courses, tracks, and programs we might usefully develop. We would now like to establish a small working group to take the lead in the SSNet curriculum initiatives.

The suggestions we've received range from modest to highly ambitious and include the following:

SSNet to serve a navigating role:

- expand the existing SSNet and FOSEP on-line listings of (undergraduate and graduate) courses, to serve a guide for interested students in existing programs:

fosep@u.washington.edu

http://depts.washington.edu/ssnet/ssn_courses.htm

Undergraduate course and program development:

- if there is a sufficient range of undergraduate STS courses, develop an undergraduate minor;
- pilot interdisciplinary STS courses that could serve as the core of such a minor, or of a more ambitious STS major, and/or that complement courses offered through existing/proposed programs;
- explore the potential for developing a major that complements existing programs: most likely a major that serves students from the humanities and social sciences who have an interest in social and cultural studies of science, given the existing HPS program and proposed Integrated Sciences major at UW-Seattle, and the STS program taking shape at UW-Bothell.

Graduate course and program development:

- build a catalog of graduate STS courses that could constitute a graduate certificate program;
- develop a suite of interdisciplinary core seminars that could serve as the core for such a program;
- draft an IGERT proposal for an interdisciplinary graduate program in STS;
- and/or secure internal support for a graduate program in STS, most likely a consortium program designed to establish a standard of scholarship in the area, and to serve as a recruiting tool for graduate students with interests in science studies who seek admission through affiliated graduate programs (e.g., in Anthropology, Communication, History, Philosophy, among others).

Questions for discussion:

- what role can SSNet usefully play in developing STS courses and curriculum at UW?
 - is there a particular need, or niche, or integrating role we should focus on, by area and level?
 - how might we most effectively support or collaborate with existing and proposed programs?
- what resources are there that could support curriculum development at the undergraduate and graduate level and/or to support development of an NSF grant proposal for an IGERT?
- how should we proceed?
 - a working group or project-specific task force(s)?
 - timetable?
 - a curriculum development retreat or summit?

EXISTING PROGRAMS AND RESOURCES

This is a schematic listing that is no doubt incomplete. Do please send us additions, updates, corrections. A call for input on curriculum resources was circulated through the SSNet e-list in mid-February; it's attached.

Major in History and Philosophy of Science: College of Arts and Sciences, UW-Seattle
an established interdisciplinary BA supported by History and Philosophy

- 5 core courses in history and philosophy of science, including a capstone seminar (25 credits), chosen from a roster of courses such as "Science in Civilization" (two part history series), "Philosophy of Science," "Logic," "Science Reason and Reality";
- 25 credits of electives in Philosophy and History;
- 30 credits of science coursework

Science, Technology and Society: a proposed option in Interdisciplinary Arts and Sciences, UW-Bothell
an undergraduate program designed to "engage students in the study of mathematics, science, and technology as socially created knowledge and practice, and as forces of change," that is broadly interdisciplinary, integrating approaches and perspectives drawn from the sciences, humanities, arts and social sciences; to start in Fall 2008

- lower division prerequisites and suggested options: 2 quarters of a 100 or 200-level science sequence, or the first quarter from two different science sequences + a course in "Functions, Models, and Quantitative Reasoning";
- three core courses (15 credits): "Science, Technology and Society," "Science Methods and Practice," "Understanding Statistics";
- 25 credits in option courses in four thematic areas: mathematical sciences; natural sciences; science communications; culture, politics, and society
- 50 additional credits: a senior seminar and program core course, distribution courses and electives

Major in Integrated Sciences: under development for the College of Arts and Sciences, UW-Seattle
an interdisciplinary undergraduate major (BSc), proposed by Michael Brown (Earth & Space Sciences)

- 65 credits of science courses in mathematics, chemistry, physics, biology, earth & space sciences;
- 15 credits in one of five upper-division science specializations: physics, earth and space sciences, biology, chemistry or atmospheric science;
- 20 credits in four core courses:
 - two core courses that focus on how science is done; what constitutes acceptable scientific methodology; how sciences fits in society, the ethical ramifications of science, the communication of science: "Nature of Science," "Case Studies Integrated Sciences";
 - a one-credit seminar/clinic;
 - a capstone course that offers hands-on experience with a scientific investigation.

Minor in Medical History and Ethics: School of Medicine, UW-Seattle
an undergraduate minor supported by the Department of Medical History and Ethics

- 25 credits in Medical History and Ethics and related courses;
- to include 2 core courses: one in ethics ("Bioethics," "Medical Ethics," "Justice in Health Care"), and one in history ("History of Modern Medicine"; "Disease in History"; "Pursuit of Health").

Undergraduate courses: a great many STS courses are offered across the College of Arts and Sciences in programs such as CHID, the Program on Values, and the Honors Program; through the Simpson Center (the Danz courses in the Humanities); and in departments such as Anthropology, Communication, Geography, the Jackson School of International Studies, Physics and Astronomy, to name a few.

Graduate courses: a number of STS seminars and courses are offered at the graduate level dispersed across programs, departments, and colleges. Members of FOSEP have compiled a list of courses that their members have found useful, in the area of science ethics and science policy, available on-line at:

fosep@u.washington.edu

APPENDIX III

SCIENCE STUDIES ORGANIZERS' BIOGRAPHIES

Stephanie Malia Fullerton is Assistant Professor of Medical History and Ethics, Adjunct Assistant Professor of Genome Sciences, and a member of the core faculty of the Institute of Public Health Genetics at the University of Washington. She obtained her D.Phil. in Human Population Genetics from the University of Oxford and later re-trained in Ethical, Legal, and Social Implications (ELSI) research at Penn State University, with a fellowship from the NIH National Human Genome Research Institute. Previous appointments include the University of Durham, UK (Anthropology), Penn State University (Anthropology, Biology, and the Rock Ethics Institute), and the University of Chicago (Human Genetics). Her current research focuses on the ethical and social implications of all forms of contemporary genetic research, but especially those practices which employ biological correlates of racial/ethnic identity ("ancestry") in the localization and interpretation of disease susceptibility. She also works on scientific conceptions of risk and responsibility in the domain of biodefense research. Recent essays have appeared in *Race and Epistemologies of Ignorance* (SUNY 2007), *Perspectives in Biology and Medicine* (2007), the *International Journal of Epidemiology* (2006), and *Evolutionary Anthropology* (2005).

Celia Lowe is Associate Professor of Anthropology, Adjunct Associate Professor of Women Studies, and Director of the Institute for Transnational Studies at the University of Washington. She works in Southeast Asia, especially Indonesia, in the field of post-colonial science studies, and her focus is on the travels of biological and other forms of scientific knowledge between EuroAmerica and Southeast Asia. She has recently published a book, *Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago* with Princeton University Press, and has published in *Cultural Anthropology*, *positions: east asia cultures critique*, *Bijdragen tot de Taal, Land, en Volkenkunde*, and in several edited volumes. In addition to this work, she is interested in practices of scholarly collaboration in the social sciences between US-based and Southeast Asian scholars. She has published on collaborative knowledge production in Southeast Asia as both a single author and with her colleague, Indonesian anthropologist Suraya Affif, and she has consulted with the Ford Foundation and the Asian University for Women in this field. Her current research concerns biosecurity and the production of risk discourse in relation to avian influenza in Indonesia.

Phillip Thurtle is an assistant professor in the Comparative History of Ideas program and the History Department and adjunct assistant professor in Anthropology at the University of Washington. He received his PhD in the history and philosophy of science from Stanford University. He is the author of *The Emergence of Genetic Rationality: Space, Time, and Information in American Biology 1870-1920* (University of Washington Press, 2008), the co-author with Robert Mitchell (English, Duke University) and Helen Burgess (English, University of Maryland) of the interactive DVD-ROM *BioFutures: Owning Information and Body Parts* (University of Pennsylvania Press, 2008), and the co-editor with Robert Mitchell of the volumes *Data Made Flesh: Embodying Information* (Routledge, 2003) and *Semiotic Flesh: Information and the Human Body* (University of Washington Press, 2002). His research focuses on identity and biology in the American eugenics movement, the material culture of information processing, the affective-phenomenological domains of media, and the role of information processing technologies in biomedical research.

Simon Werrett is assistant professor in the Department of History at the University of Washington, Seattle, where he is also an organizer of the university's Science Studies Network. Previously a fellow of the Max Planck Institute for the History of Science in Berlin, Werrett was also a recipient of grants from the Getty Research Institute, Los Angeles, and Hagley Museum, Delaware. His work explores relations between science, art, and spectacle, and the geography of knowledge. He recently completed a monograph, *Philosophical Fireworks: Science, Art, and Pyrotechnics in Early Modern Europe*, currently under review. In addition, several articles have considered the origins of Bentham's Panopticon in Russia; the role of courtly garden fountains in Descartes's optics; and role of the observatory as theatre in nineteenth-century Russia. Werrett is currently researching scientific and artistic performances on early nineteenth-century Russian voyages of exploration.

Alison Wylie is Professor of Philosophy and Anthropology at the University of Washington, and convener of the UW Science Studies Network. Previous academic appointments include Barnard College (Women's Studies) and Columbia University (Philosophy), Washington University in Saint Louis (Philosophy), and the University of Western Ontario (Philosophy), as well as research fellowships at Stanford (in the Clayman Institute for Gender Studies and the Center for Advanced Study of the Behavioral Sciences), the École des hautes études en sciences sociales (Paris), NYU (Applied Philosophy Group), the University of Denver, and UC-Berkeley (Anthropology). A philosopher of social science, she focuses on issues raised by archaeological practice and by feminist research in the social sciences: ideals of objectivity, the role of contextual values in research practice, and models evidential reasoning. She is the author of *Thinking from Things: Essays in the Philosophy of Archaeology* (2002), editor of *Epistemic Diversity and Dissent* (Episteme 2006); and co-editor of *Value-Free Science?* (2007), *Doing Archaeology as a Feminist* (JAMT 2007), and *Feminist Science Studies* (Hypatia, 2004). Recent essays have appeared in *Evaluating Multiple Narratives* (Springer 2007), the Sage *Handbook of Feminist Research* (2007), *Theoretical Empiricism* (2006), *Embedding Ethics* (Berg, 2005), and *Science and other Cultures* (Routledge, 2003). She is currently writing a book on feminist standpoint theory.