SDN Meeting Report 2007

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The 2007 Science and Democracy Network (SDN) annual meeting took place at the Centre for Research in the Arts, Social Science and Humanities (CRASSH) in Cambridge, UK. Approximately 60 scholars from across Europe and the United States met over three days to discuss the ongoing concerns and themes of SDN, including citizenship, scientific discourse, and scientific institutions, as well as their local and global contexts. Formally, the meeting hosted six panels, two round-table discussions, a book celebration for network members, and a business meeting. A brief summary of the meeting follows.

Citizenship: Theorizing Scientific and Political Community

Mark Brown (California State University, Sacramento) *Three Ways to Politicize Bioethics*: Addressed the politicization of bioethics in US bioethics commissions via three traditions of political thought. Found the most promise in the republican tradition, which emphasizes institutional mechanisms that allow bioethics councils to enrich but not dominate public deliberation, while ensuring that decisions on bioethical issues remain publicly contestable.

Steve Bernardin (Université de Paris I, Panthéon Sorbonne) and Brice Laurent (Ecole des Mines) *Competing Scientific Citizens and their Evaluation*: Rethought the relationship between science and citizens by looking at how citizens use knowledge, and how ideal and non-ideal citizens are defined in public discourse about science. Used two case studies: 1960s US traffic safety and a contemporary France nanotechnology controversy. Argued that in addition to the state, various administrative levels, civil society, and private companies construct citizenship.

Kevin Burchell (London School of Economics) *Scientific Experts and New Forms of Citizen Participation*: Focused on the Wellcome Trust-funded ScoPE project to address the roles and attitudes of scientific experts towards new forms of citizen participation. Argued that the status, function, and role of scientific experts in new forms of citizen participation are somewhat fluid and ill defined.

Citizenship: Participation and Partnerships

Regula Burri (ETH & University Zurich, Switzerland) *Assessing Nanorisks: Stakeholder Participation in Emerging Technologies*: Looked at upstream public engagement projects to analyze how stakeholder groups deal with epistemic uncertainty in deliberating new technologies through the case of nanotechnologies in a Swiss-organized citizen panel. Found that participants assess emerging technologies based on general and habitualized schemes and experiences.

Ariane Koenig (University of Oxford) *Challenges to public engagement in science-based firms: A case study of Monsanto's introduction of gm crops in the global food chain*: Analyzed the multinational agricultural company Monsanto's stakeholder engagement with genetically modified crops during the 1990s. Hypothesized that prevailing interpretations of nature and

accountability could be attributed to two different modes of cognition between Monsanto and the stakeholder groups, thus accounting for the lack of mutual understanding on this issue.

Les Levidow (Open University) *Participatory TA of Agbiotech in Europe: Performing Publics, Contesting Lay-Expert Boundaries*: Used agricultural biotechnology as a case study for participatory technology assessment (TA) projects. Participant challenges to the boundaries imposed through project design and management opened up issues for a broader lay expertise. Argued that state-sponsored TA complements neoliberal representative democracy and also reproduces its contradictions through contested boundaries.

David Winickoff (University of California, Berkeley) *Partnership in UK Biobank: A Third Way for Genomic Property?*: Rethought the idea of biobanking through analysis of the UK biobank project. This project illustrated a promising "third way" for genomic property between commodification and inalienability that resonates with a new legal-institutional model: the "Charitable Trust Model".

Discourses and Disputes

Saul Halfon (Virginia Tech) *DU Lifeworlds*: Explored controversies over depleted uranium (DU) through the frames of several key actors to challenge notions of reasonableness. Here, motivated actors differentially understand science, and these understandings are connected to social and political identities. Reasonableness is thus a situated perspective achieved and deployed through struggle. This suggests that conflicting political positions are inseparable from different understandings of institutions, risks, and science.

Philip Loring (Harvard University) *Dr. Seuss and the Chomskyan Revolution*: Examined the reconfiguration of the human sciences' public role in the US during the 1950s-1960s through debates about how Americans should be taught to read. Analyzed the ways linguists and the public imagined each other in order to consider debates about public understandings of science. Argued that linguistic authority depended on the *inaccessibility* of linguistics for a lay readership.

Pru Hobson-West (University of Nottingham) *Imagining the Non-human: Animals in Science and Society*: Looked at different approaches to conceptualizing the laboratory animal by considering the ways in which contemporary society imagines the animal as 'other'. Suggested that what happens to laboratory animals is governed by ethical and regulatory frameworks that are produced through scientific knowledge of human-animal categories.

Scott Vrecko (London School of Economics) *Postsocial Control and the Law: On the Deployment of Brain Technoscience by US Courts*: Analyzed the legal and social implications of developments in the brain sciences for criminal justice. Focused on the use of psychotropic drugs to manage individuals convicted of DUI. Contemplated how these developments relate to changes in contemporary 'logics of control' in Western industrialized societies.

Science and Identity in Global Contexts

Jay Aronson (Carnegie Mellon University) *Technologies of Truth: The Production of Knowledge in South Africa's Truth and Reconciliation Commission*: Looked at knowledge production in human rights contexts, particularly how knowledge is used for reimagining the state and society. Through the case of South Africa's Truth and Reconciliation Commission (TRC), argued that four truths emerged, producing institutional credibility, a collective identity, new normative frameworks, and ultimately, a new "South Africa".

Sang-Hyun Kim (Harvard University) *Some Thoughts on the Historical Roots of South Korea's Contemporary Sociotechnical Visions*: Traced the historical roots of South Korea's sociotechnical imaginaries through the scandal surrounding scientist Hwang Woo-Suk's human embryonic stem cell (hESC) research. Argued that dominant imaginaries stem from a unique amalgamation of nationalism, developmentalism, and a strong utilitarian view of science and technology sedimented in postcolonial Korea.

Sujatha Raman (University of Nottingham) *Science, Citizenship and Justice in the Global Multitude*: Analyzed the concept of citizenship through climate change and infectious disease debates in the UK. Mapped how citizenship is negotiated in these different contexts and compared how this occurs in environmental and health/medicine domains by contrasting two key visions of the citizen in relation to technoscience: that of 'subject' versus that of the 'knowing citizen.'

Knowledge in Corporate and State Governance

Peter Weingart and Justus Lentsch (Bielefeld University) *Scientific Advice to Policymaking in Germany—Relation between Organizational Form and Function*: Addressed the dilemmas of scientific advice to policy-making. Analyzed four German institutional models with respect to function and performance. Argued that advisory relationships are conflictual and advice in all these processes seeks to be epistemically sound and politically robust, but the balance usually tilts one way or the other.

Catherine Will (University of Sussex) *Extrapolation and Expertise: The Problem of Medical Value among the 'Old Old'*: Addressed practical issues raised by the quantification of medicine by looking at debates surrounding Evidence-based Medicine (EBM) through the case of valuing statin drugs for the elderly in the US and UK. Illustrated difficulties in connecting the two technologies of randomized controlled trials and clinical guidelines. Argued that clinical trial evaluations should include constituents' interests to create a more democratic process.

Claire Waterton (Lancaster University) *Proteé – the Great Pretender – a Technology for Science and Democracy?*: Looked at the theory and claims of Protée, a methodology designed to create a working dialogue between social scientists and industrial innovators in order to bring STS insights to bear on scientific innovation. Critically discussed the use of Protée in the global taxonomic sciences. Suggested that this methodology offers a way to build relationships with scientific actors and make a 'learning pact' with the drivers of innovation.

Pierre-Benoit Joly (National Institute for Agricultural Research (INRA)) *Shifting ontologies of the gene and the patenting of DNA: How did the gene become a chemical*

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molecule?: Analyzed three cases of controversy surrounding gene patenting to consider the different definitions of genetic relationships in law and in the life sciences. Argued that there is a lag between the definition of patentability norms and the current state of biological knowledge.

Toward "Thicker" Science

Rebecca Ellis (Lancaster University) *Barcoding Life: Forgetful Science for the Biodiversity Commons*: Focused on the role of memory and forgetting in taxonomy and biodiversity through a global barcoding initiative, and in particular, how it attempts to remove ambiguity and replace it with accessible and standardized species identification. Argued that barcoding "forgets" by removing taxonomy from representations of biodiversity.

Matthias Gross (UFZ, Leipzig) *Ignorance and Experiment: Dealing with Unknowns in the Context of Ecological Restoration and Landscape Design*: Addressed public views of scientific acceptability and reliability through the case of an open-cast mining pit development project in Germany. Suggested that robust ecological design strategies rely on two dimensions: openness to surprises and acknowledgement of ignorance. When both of these elements are high, experimental practice is more likely to be socially and scientifically robust.

Willem Halffman (University of Amsterdam) *Avocational Science: "Amateurs" and the Naturalist Tradition*: Looked at three contemporary cases of amateur involvement in science—archaeology, astronomy and field biology—to address how reliable knowledge is produced on the fringes of scientific institutions and to ask whether there are alternative models for validating new knowledge.

Panel Discussion Themes and Questions:

In discussions, the following themes and questions were raised:

Comparison and historicity: Comparative design can be used in non-traditional ways to relate similarity and difference by taking different cases and seeing what remains constant (as opposed to the traditional approach of taking similar cases and seeing what differentiates them). Using the concept of civic epistemologies, one could ask how authoritative knowledge differs across different national (or other) cultures. Comparing cases over time can illustrate why some criteria are important to consider—for example, how citizenship embedded in a market context is viewed differently over time.

Epistemology: How can we think methodologically about subject positions? How, for example, does trying to understand the subject position of the animal compare with early conversations in anthropology about the subject position of members of other cultures? There are ways in which the use of categories becomes essential for knowing what it is to know and to be. Can we think about risk and uncertainty without neo-liberal ideology, language without its political economy, or animals without humans? Are there in Hegel's terms dialectical relationships between system and spirit that characterize ways of knowing in specific times and places?

Tacit politics vs. political 'moments': Politics is an ongoing process, and there are moments when the formally Political (big-P) gets called into existence, but is it reductionist to look exclusively at these political moments instead of the 'small-p' or tacit politics that occurs all the time? These types of politics occur for both institutional and ideological reasons i.e., entrenched commitments may be located in institutional practice or background ideology. What forms do such "small-p politics" take?

Public engagement discourse: First, institutional manifestations of public engagement discourse corral out of politics what could be going on in a more Foucauldian or immanent sense—that is, without explicit recognition, but because people have been socialized to behave in certain ways. For example, scientists in contemporary democracies typically feel they are accountable to the public, and the effects of that ideology are constantly playing out in the background. At another level publics are always appropriating the categories of science to talk about their own condition and then coming up with their own definitions of those categories. At a more formal level, in the US context, the legal system is a place where people are involved in generating formal ideas of the public, based on dominant framings of what is at risk: for example, citizens frame issues through markets and risk discourse. A novel way of thinking about public engagement is to start out by asking where people are engaging with epistemic claims, and how engagements occur within different understandings of accountability, etc.

Stakeholder involvement: Who is involved in each of the cases and how do particular kinds of stakeholder groups get constituted? What rationales are used in identifying stakeholders? Is representation assumed? Are actors expected to speak from different perspectives (e.g. scientists qua scientists and/or as citizens) and what are the implications of that? How do institutions mediate different forms of citizenship? What are the lines of social cleavage under analysis? Expert-lay cleavages are one, but what about class or gender divisions for instance? At what kind of agency and at what polity should participation be aimed? How big should the polity under analysis be? What is the role of social scientists in different participatory projects? Is the category of activist undergoing 'expert-ification'? Many of the talks contained an element of non-expert voices gaining control. How do the unorganized and non-expert voices inject their own views?

States and state-making: What kinds of caretaking do states perform? Therapy is one (e.g. through South Africa's truth commission) but not the only one. Does knowledge-making function to create national identity? What role does knowledge making play in nation-building? Can the production of national consciousness be better analyzed by comparing across states?

Memory and forgetting: Many STS scholars are being drawn to memory as an analytic tool, but historians have been doing this for a long time. These kinds of memory work should be connected. Who gets to tell what story establishes what is remembered and what is erased. When you ask 'Who chooses?' you connect up to democracy and power more broadly. Many of the talks could be seen through the lens of representation/re-representation where some things are shown and others occluded. What if occlusion were an analytic entry point for the critic?

Visualization: What are the politics of visualization? Visualization is an extremely important domain where the political will is tacitly expressed. However, visualization never happens on a

clean slate: there's always one version versus another. Images can act as instruments of knowledge validation, but to whom, in what context, and with what effect?

Discussion of EC Report: *Taking European Knowledge Society Seriously* (Brian Wynne, Ulrike Felt, Sheila Jasanoff, Pierre-Benoit Joly)

Four co-authors of the European Commission (EC) Report *Taking European Knowledge Society Seriously* discussed its development and the hurdles encountered in its production. The report was written as a way for STS to engage with policy-making. A key question was whether STS knowledge could improve the involvement of democratic civil society in European science and governance?

In discussion, one SDN member noted that this is a political project which is part of the much larger political project of making Europe in a globalizing world—and it presents one vision of how the European model might look. Another line of discussion focused on how the report could be used by the authors: as a boundary object to help people rethink the problems presented in the report; as a civil society resource for different actors including scientists and NGO activists; and as a knowledge-building exercise.

Lunch Roundtable: *Global Knowledges and Democratic Agency* (Clark Miller and Daniel Barben)

The investigators discussed their current project on global knowledge. They asked: what is global knowledge and what would we like to know about it? What is at stake when we talk about global knowledges and why are democratic legitimacy and agency of particular importance? Which research questions and conceptual tools are the most promising for investigating global knowledge? How might STS scholarship advance our understanding of global knowledge?

In discussion, members suggested engaging with fields outside STS that are close to the power structures of interest, for example, international relations and international political theory. Sites of analysis for global knowledge may include: knowledge institutions, expert committees, global media, the law, patent offices, and 'radical others' (including terrorists and animals). Another recommendation was to seek out the tensions in scalar modes of governance: for example, in the ways the nation-state persistently presents itself as a knowing agent, and differences across regulatory styles and cultures with respect to knowledge. Moreover, rather than start from a definitional perspective, one could investigate the epistemic and artifactual dimensions of global knowledge. Finally, one could look at silences: What questions do not arise? What does not get said? The global polity can be considered through an epistemic lens: then the democracy questions becomes empirically about who does or does not get access to knowledge and why.

Business Meeting:

The business meeting focused on two core areas for future network efforts: information sharing and management. On the first item, members suggested three potential avenues for information-sharing: creating a core set of intellectual resources, producing a newsletter, and writing a manifesto. Regarding the first suggestion, members will submit annotated readings that they find

indispensable for work on science and democracy issues. These resources will be collected and made available to members via the SDN website with the aim of increasing intellectual connections and cohesion among members as well as broadening the range of resources known to them individually.

With respect to management, members discussed future locations for SDN meetings (which, in addition to Cambridge, MA, included London, UK through Demos or the LSE; Washington, DC as an interactive engagement with policy-makers, and Arizona State University). They also considered the possibility of grant-writing to fund several programmatic initiatives, including a website coordinator, and a meeting on 'global divides'.

Wrap-up and look ahead:

Throughout the SDN meeting, the network discussed how to re-consider public participation. Contrary to the conventional discourse on participation, public participation was viewed and discussed as a central tool of *de*-politicization, wherein the challenge is not to improve participation, but to critique the very assumptions of formal participatory initiatives. Members also presented a particular view of media studies and communication. While popular discourse often fixates on the verbal, in this meeting members also stressed the visual. This included a deepening sense of where the visual acts as an instrument of power, with local, trans-local, and supra-local political implications. Additionally, members discussed different institutional intersections, for example, bringing law together with cross-cultural work, or anthropological perspectives together with global decision-making, to expand the networks' comparative and international dimensions. Finally, the network is trying to create forms of knowledge that are meaningful to state institutions in connection with activism. The network is interdisciplinary, and insights are brought to bear in reflective and analytic ways. While making these connections is not of the highest priority for everyone in the network, SDN brings together people who do wish to make those connections.