Dear Friends of STS,

Another fruitful year has come and gone in the Program on Science, Technology and Society at Harvard. I am happy to report that the Program’s relationships across and beyond the University remain as productive as ever. We continue to benefit from our close connections with the Law School, the Graduate School of Design, the Weatherhead Center for International Affairs, and the School of Engineering and Applied Sciences (SEAS), where we typically host the STS Circle. This year has seen a steady uptick in attendance at our events, with attendance at the STS Circle, co-funded by the Graduate School of Arts and Sciences, routinely numbering in the forties, testifying to growing interest in all things related to STS at Harvard.

The past academic year featured two “standing room only” Science and Democracy Lectures, with Martin Rees, eminent UK astronomer and former head of the Royal Society, and Peter Thiel, noted entrepreneur, venture capitalist, and co-founder of Paypal. Our fellows also took the lead in organizing workshops and events, contributing to a very full slate of successful offerings in the spring semester.

This was also a remarkably productive year for STS research at Harvard. This fall, members of our growing research team began work on a new National Science Foundation project, “Traveling Imaginaries of Innovation: The Practice Turn and Its Transnational Implementation.” This three-year project will analyze innovation practices in four cities: Boston, Cambridge (UK), Munich, and Bangalore. We also built on our significant achievements in research related to biology and society. Some members of our group held a workshop at Switzerland’s Brocher Foundation in May while others enjoyed a month-long writing fellowship there in July. The network of STS scholars trained in the framework of bioconstitutionalism at Harvard has grown to the point where we feel a need to highlight their individual and collective contributions to scholarship and public debate. In coming months, we hope to launch a new section of the Harvard STS website that does just that.

Last June, we hosted the 14th Annual Meeting of the Science and Democracy Network in Cambridge, with invaluable support and contributions from the Institute for Global Law and Policy at Harvard Law School. Next year, it will again be Europe’s turn to host SDN. Our colleagues at the London School of Economics and University College London are working with us to bring the 15th Annual Meeting of SDN to London.

Our teaching and training endeavors also continue to flourish, with growing student participation and interest in the Graduate Secondary Field in STS and, in a new development, also in Harvard College. In addition, I am delighted to report on career milestones, publications, and research grants for current and former STS Fellows. You will find fuller information about all of their accomplishments below.

With best wishes for the new year and grateful thanks for your continued interest and support,

[Signature]
Martin Rees, UK Astronomer Royal and former president of the Royal Society, talked about what keeps him up at night in “Catastrophic Risks: The Downsides of Advancing Technology”. Rees emphasized the importance of mitigating existential risks, those resulting in the extinction of the human race, as opposed to extreme risks that inflict great harm but do not affect human survival. While he dedicated some time to well-discussed risks, such as climate change and nuclear technology, Rees argued for the need to study and develop expertise in assessing other potential risks resulting from biotechnology, cyber technology, geo-engineering, and artificial intelligence. Panelist George Daley (Harvard Stem Cell Institute) supported Rees’ call for scientists to be responsible for predicting the potentially deleterious implications of their research. Daniel Schrag (Earth and Planetary Science) pointed out the ethical concerns that accompany reliance on technologies as solutions for social problems. Jennifer Hochschild (Government) discussed the role of political culture in public reactions to emerging technologies, while Sven Beckert (History) wondered whether the long timescale of existential threats diminishes human agency and suggested concentrating efforts on the redesign of existing social, political, economic, and scientific institutions.

A video of the lecture is available [here](http://sts.hks.harvard.edu/).

Peter Thiel, co-founder of Palantir Technologies, Founders Fund, and PayPal, spoke of his fear of stagnant technological innovation. In his lecture, “Back to the Future: Will We Create Enough New Technology to Sustain Our Society?”, Thiel argued that current public discourse is too focused on catastrophic visions of distant future technologies and the replication of mundane technology. For Thiel, the greater risk is that society’s progress will be limited without bolder visions of transformative technology. He suggested several explanations for the perceived slowdown in technological growth, emphasizing its cultural and political causes and suggesting that calls for more STEM education are not necessarily the way forward. Rather than a shortage of engineers, he argued, there is a shortage of visionaries. Panelist Samuel Moyn (History and Law) pointed to the role of the state as a key engine of innovation in past cases highlighted by Thiel, and asked how the disappearance of the state from sites like Silicon Valley might impede more ambitious ventures. Margo Seltzer (Computer Science) returned to the question of education, arguing that while perhaps there is no shortage of STEM-specialized graduates who join the workforce, there is a shortage of STEM-educated citizens. Antoine Picon (Design) suggested that the perceived disappearance of science and technology is actually the result of digital technology’s increased embeddedness in every facet of social life.

A video of the lecture is available [here](http://sts.hks.harvard.edu/).
Workshops and Initiatives

Earthworks Unlimited: Problems and Prospects of Geoengineering

This two-day workshop, held on April 16-17, was jointly organized by the STS Program and Professor David Keith and Dr. Joshua Horton (Harvard SEAS/HKS). It brought together scholars from a variety of fields including science and technology studies, political science, law and engineering to address major policy questions about geoengineering. Panels addressed the stakes in geoengineering controversies, the role of experiments, issues of scale and infrastructure, and global constitutionalism. Harvard participants included STS Fellows Margo Boenig-Liptsin, Gabriel Dorthe, Joakim Juhl, Zoe Nyssa, Sebastian Pfotenhauer, and Claire Stockwell, as well as Joshua Horton, Sheila Jasano and David Keith. Invited speakers included Phil Macnaghten ( Wageningen), Clark Miller (ASU), Shobita Parthasarathy (Michigan), Vlad Perju (Boston College), Steve Rayner (Oxford), Stefan Schafer (IASS) and Jack Stilgoe (UCL).

The Victims of the Anthropocene: How We Name Those Displaced by Environmental Changes

On April 24, François Gemenne (Princeton and Sciences Po, Paris) visited the Harvard STS Program to present his views on what the Anthropocene means for the people who are most affected by environmental change. Drawing from case-studies in small island states, New Orleans after hurricane Katrina, and Japan after the Fukushima disaster, he highlighted how Western normative perceptions of agency, vulnerability and responsibility continue to reproduce the patterns of inequality that led to current conditions in the Anthropocene.

STS Fellows Claire Stockwell and Aleksandar Rankovic and Visitor Maximilian Mayer served as discussants.

Science and Democracy Network

The 14th Annual Meeting of the Science and Democracy Network was held at Harvard Law School, June 25-27, 2015, with generous support from the Institute for Global Law and Policy. This year's meeting included pre-circulated papers on a variety of topics such as chemical testing on children, climate knowledge in South America, GMOs and Indian democracy, translational medicine, and theoretical aspects of sociotechnical imaginaries and biopolitics. In order to accommodate more speakers, the meeting also featured a panel of eight shorter presentations exploring diverse uses and understandings of the concept of co-production.

Training and Curricular Activities

Secondary Field

The Secondary Field in Science, Technology and Society continually attracts Ph.D. students from varied backgrounds including anthropology, law, design, chemistry, and engineering and applied sciences, among others. In Spring 2015, Secondary Field student and current Harvard STS postdoctoral fellow Margo Boenig-Liptsin (History of Science Ph.D. ’15) presented her dissertation research on “A New Literacy for the Information Age: Children, Computers, and Citizenship.”

STS Circle

In the tenth year of the STS Circle attendance reached new heights, with audiences regularly spilling out of the SEAS seminar room in Pierce Hall. This year, the STS Circle also developed its connection to Harvard’s international affairs community by holding the Spring 2015 series at the Center for Government and International Studies (CGIS) in collaboration with the Weatherhead Center for International Affairs. Drawing on the diversity of the local academic community and capitalizing on its connections with engineering and the natural sciences as well as the social sciences and humanities, the STS Circle serves as the most attractive venue for junior and senior scholars to present their work on science, technology, and society in Cambridge.

The complete STS Circle program is available at http://sts.hks.harvard.edu/events/sts_circle/

Fourth Annual STS Undergraduate Essay Contest

The STS Undergraduate Essay Contest recognizes independent original research on science, technology and society conducted by undergraduates. STS Fellows read and evaluate their submissions. Hilton Simmet (Social Studies ’15) won first prize for his thesis chapter, “Blueprints & Laboratories: An Exploration of Plural Modernities in Senegal’s Ecoinvillages.” Bran Shim (Statistics ’15) won second place for his essay “Land of the Rising iPS Cells: Sociotechnical Imaginaries and Stem Cell Biology in Japan.” Rachel Taylor (Social Anthropology ’15) was awarded third place for her thesis chapter, “Darning the Drifters: Posthumanist Implications of Jellyfish Subjects in Science, Art, and Aquariums.” To see the winners discuss the relationship between STS and their prize essays, click here.

Photo: Nov. 2nd STS Circle Speaker and Faculty Affiliate Andrew Jewett (Harvard, History), presents his work on “Of Science and Scientism: Framing Science in the Postwar American Humanities.” Photo by Zara Mirmalek.
Research News

“Traveling Imaginaries of Innovation: The Practice Turn and Its Transnational Implementation”

Principal Investigator Sheila Jasanoff, along with STS Postdoctoral Fellow Margo Boening-Liptzin and former Fellows Sebastian Pfotenhauer (TU Munich) and Joakim Juhi (Denmark), began work this fall on a new National Science Foundation funded comparative project to analyze the practices of innovation at the city scale through the lens of sociotechnical imaginaries. The project will examine how three approaches to innovation — MIT, Silicon Valley, and public engagement — came to serve as best-practice models that have been widely adopted, and we believe reimagined, in implementing innovation policies worldwide. Through interviews, archival, and ethnographic work, the project will investigate how each model has been interpreted and deployed in four cities — Boston (USA), Cambridge (UK), Munich (Germany) and Bangalore (India). The first year of the project will be devoted to characterizing the innovation landscapes and policy environments of each city and the role played in it by each of the traveling imaginaries.

“Life in the Gray Zone: Governance of New Biology in Europe, in the Gray Zone: Governance of New Biology in Europe,”

Principal Investigator Sheila Jasanoff (Harvard) and Senior Researcher Kyo-Sato (Stanford) continued their NSF-funded investigation of the impact of the 2011 Fukushima disaster on nuclear discourses and politics in Japan and the United States. The three-year project (2013-2016) examines the sociotechnical imaginaries that anchored postwar nuclear governance in the two countries, as well as how, in the process of interpreting and addressing the Fukushima disaster, these imaginaries are being refined and modified. Based on Sato’s fieldwork and document analysis, it appears that the postwar Japanese nuclear imaginaries emerged at a time when the consequences of the Hiroshima and Nagasaki bombings, including images and narratives of bomb survivors (hibakusha), were effectively suppressed by US censorship. Instead of harrowing representations of the bomb-cast cities and the physical and social struggles of survivors, a discourse of progress infused Japan’s early nuclear imaginaries, encompassing guilt for the wartime past, celebration of the current peace, and hopes for future prosperity. These imaginaries significantly shaped the nation’s nuclear energy program and its governance, putting in place regulatory features that remained unquestioned until the 2011 disaster.

FELLOWS

Antony Adler
Postdoctoral Fellow, University of Washington

Jan Peter Bergen (Fall 2015)
Ph.D. Candidate, Delft University of Technology

Laurence Delina (Spring 2016)
Postdoctoral Associate, Sustainable Energy Transitions, Boston University

Samuel Weiss Evans
Research Associate, John A. Paulson School of Engineering and Applied Sciences; Research Affiliate, Program on Emerging Technologies, Massachusetts Institute of Technology

Nicole Gayard
Ph.D. Candidate, State University of Campinas, Brazil

Jan Vincent McGonigle (Non-Resident)
Israel Institute Postdoctoral Fellow

Zara Mirmalek
Postdoctoral Fellow, STS Program/National Science Foundation INSPIRE Project: “Transforming Remotely-conducted Research through Ethnography, Education and Rapidly-Evolving Technologies”

Research News

“Transforming Remotely-conducted Research through Ethnography, Education, & Rapidly Evolving Technologies (TREET)”

The NSF-funded project “Transforming Remotely-conducted Research through Ethnography, Education, and Rapidly Evolving Technologies” (TREET) is in its final year. Data collection is complete and analysis is well underway. The project was a collaborative, multi-institutional study focusing on distance learning and undergraduate student training in geology and marine biology of sea-floor volcanoes, and on work culture in the telepresence-enabled work environments of deep-ocean science and exploration. STS Fellow Zara Mirmalek conducted ethnographic research on the second component. Her work on the project informs her current research on sociotechnical imaginaries of private and public territories in inner and outer space. In October, the TREET project was presented at a public meeting of NOAA’s Ocean Exploration Advisory Board by co-PI Chris German (Woods Hole Oceanographic Institute).

Discourses of Modernity: Sociotechnical Imaginaries and the Fabrication of Power

In August 2015, the University of Chicago Press published Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power. Edited by Sheila Jasanoff and former STS Fellow Sang-Hyun Kim, this volume grows from research conducted at the STS Program as part of the NSF grant “Sociotechnical Imaginaries and Science and Technology Policy: A Cross-National Comparison.” The book features chapters written by many former STS Fellows and Visitors including Regula Valéire Burri, Ulrike Felt, Benjamin Hurlbut, and Clark Miller. It is available for purchase through The University of Chicago Press.

FELLOWS cont.

Jacob Moses
Graduate Research Fellow, “Life in the Gray Zone: Governance of New Biology in Europe, South Korea, and the United States,” Harvard STS Program; Ph.D. Candidate, History of Science, Harvard University

Zoe Nyssa
Environmental Fellow, STS Program/Harvard University Center for the Environment

Kellie Owens
Ph.D. Candidate in Sociology and Science in Human Culture, Northwestern University

Charlotte Peever
Lecturer, Faculty of Law, University of Technology, Sydney

Benjamin Raimbault
Ph.D. candidate, University of Paris-Est Marne la Vallée

Matthew Sample
Ph.D. candidate, Philosophy, University of Washington

Hilton Simmet
Student Fulbright Scholar, Senegal

Melanie Smallman (Fall 2015)
Ph.D., Science and Technology Studies, University College London, UK

Mylene Tanferri (Fall 2015)
Ph.D. Candidate, University of Lausanne, Switzerland

Research through Ethnography, Education, & Rapidly Evolving Technologies (TREET)”

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“Life in the Gray Zone: Governance of New Biology in Europe, South Korea, and the United States”

Fellow Jacob Moses and Research Assistant Jessica Cussins have been developing a new section of the Harvard STS website that will highlight the scholarship of a network of STS scholars who have been working in the framework of bioconstitutionalism (see Jasanoff, ed., Refocusing Rights here). The team is also aiming to complete a research platform on bioconstitutionalism. This publicly available web-based platform (modeled on the sociotechnical imaginaries platform currently on our website) will contain sample cases and interactive resources to inform scholarly work at the intersection of STS theory and empirical studies of the biological and biomedical sciences.
Fellow Milestones


Jay Aronson (2001-2004) is developing better tools and approaches to acquiring, authenticating, analyzing, and archiving human rights-related media, especially video. His work is supported by several foundations seeking to facilitate collaborations between technologists and human rights practitioners. He is also beginning a project that explores the extent to which the democratization of human rights documentation (through the global spread of mobile phones with cameras) is leading to improved prevention and accountability. His book on the recovery, identification and memorialization of the victims of the 9/11 World Trade Center attacks will be published by Harvard University Press in fall 2016.

Za Barron (2011-2013) is in her third year as assistant professor at University of Wisconsin Oshkosh. A recent publication, a co-authored piece in Progress in Physical Geography (“Names Matter: Interdisciplinary Research on Taxonomy and Nomenclature for Ecosystem Management”) incorporates work she completed at the Pringle Lab and STS Fellows program while at Harvard. She also has a chapter, “Situating Wild Product Gathering in a Diverse Economy: Negotiating Ethical Interactions with Natural Resources,” in Making Other Worlds Possible: Performing Diverse Economies, an edited volume published last spring.


Alessandro Blasimme (Spring 2014) will start a new job at the University of Zurich’s Department of Public Health – Health Ethics and Policy lab in November 2015.


Regula Valérie Burri (2007-08) was a guest professor at the Department of Science and Technology Studies at the University of Vienna in Spring 2015. As a co-founder of the Hamburg Center for Bio-Governance (HCBG), she created a lecture series on BioGovernance in cooperation with HCBG.

Lydie Cabane (Fall 2014) will join the London School of Economics as a research officer at the Centre for the Analysis of Risk and Regulation, where she will work on the transboundary crisis.

Mads Dahl Gjefsen (2011-2013) completed his PhD thesis on “Vehicle or Destination? Discordant Perspectives in CCS Advocacy” at the University of Oslo in May 2015. He is now a lecturer in Environmental Studies at the University of Wisconsin-Oshkosh, where he and his wife, Za Barron (2011-2013), recently welcomed a daughter, Aila Grace Gjefsen (born June 26, 2015).


Monika Kurath (2007-2008) was a guest professor in the Department of Science and Technology Studies at the University of Vienna in October 2015. There, she taught a seminar, “Reimagining Cities: Assemblages and the Social Construction of Urban Territories,” as part of the University’s Master of Arts in Science, Technology and Society.

Martin Mahony (Fall 2012) accepted a British Academy Postdoctoral Fellowship to pursue research on the history of meteorology and climatology in the British Empire. The fellowship will run for three years, beginning in December 2015, and is located at the University of Nottingham.

Laurence Delina (Spring 2013) is a Postdoctoral Associate at the Frederick S. Pardee Center for the Study of the Longer-Range Future at Boston University where he leads a project on sustainable energy decisions in developing countries. His article “Strengthening the Climate Action Movement: Strategies from Histories” recently appeared in Carbon Management. For his work on nonviolent climate action, he received the 2014 Ph.D. Stipend Award from the International Center on Nonviolent Conflict. He will publish his first book Strategies for Rapid Climate Mitigation: Wartime Mobilisation as a Model for Action? with Routledge.


Friederike Gesing (2012-2013) will publish her book Working with Nature in Aotearoa New Zealand: An Ethnography of Coastal Protection in April 2016 (Bielefeld: Transcript), which analyzes coastal protection as a sociomaterial practice. In the context of the Aotearoa New Zealand coast, it follows the emergence of a new sociotechnical imaginary: coastal management working “with nature” and not against it. The book shows how coastal protection reproduces natural and cultural orders.


Johanna Höflken (2010) leads an interdisciplinary project funded by a Responsible Innovation grant from the Netherlands Organization for Scientific Research (NWO). The project investigates social, ethical and technical issues around the development and implementation of smart grids in India. The project includes three postdocs (STS, Ethics, electrical engineering) and will run for four years (2015-19). More information on the project can be found here.


Ian McGonigle (2013-2014, Non-Resident 2015-2016) was awarded an Israel Institute Postdoctoral Fellowship to undertake study in Israel during the 2015-2016 academic year. He recently published an article on ethnopharmacology and the translation of expert knowledge in *Ethnos: Journal of Anthropology* and co-wrote an article on Jewish genetics and the Israeli Law of Return for the *Journal of Law and the Biosciences*.

Cormac O’Raifeartaigh (2010-2011) continues his research on the translation and analysis of little-known articles by Albert Einstein. His latest article “Einstein’s Cosmology Review of 1933: A New Perspective on the Einstein-de Sitter Model of the Cosmos” was featured on the cover of the *European Physical Journal (H)*, a major journal in historical studies of contemporary physics. This is the second time in two years that the work of Cormac’s research group has been featured on the cover.

Celina Ramjoué (2003-2004) now works as a Head of Sector for the European Commission’s Directorate General for Communications Networks, Content and Technology (CONNECT) where she focuses on research funding and research policy, open access, open science, and research data policy. Her STS background continues to guide the way she thinks about her work.

Melike Sahinol (2009) successfully defended her doctoral dissertation, “Neuroscience in Practice: The Co-Constitution of the Techno-Cerebral Subject in the Neuroscience.” She is currently working as Research Fellow at the Orient-Institute Istanbul, an independent turcological and regional scientific research institute of the Max Weber Foundation, where she is working to establish a new research field called “Human, Medicine and Society.” This research field will investigate several developments in Science, Medicine and Technology systematically from an STS perspective.

Kyoko Sato (2013-present) published a co-authored paper with Veronica Boix Mansilla and STS faculty affiliate Michèle Lamont on “Shared Cognitive-Emotional-Interactional Platforms: Markers and Conditions for Successful Interdisciplinary Collaborations,” in *Science, Technology & Human Values*. She also shared her research on the politics of nuclear governance in Japan and STS perspectives to the Fukushima disaster with nuclear scientists and engineers at two international conferences, at the University of California, Berkeley and at Lawrence Berkeley National Laboratory.

Hilton Simmet (2015-2016) is a Fulbright scholar working in Dakar, Senegal on questions at the intersection of development, climate change, and sustainability discourse. Using the frameworks developed at Harvard, in particular socio-technical imaginaries and co-production, Hilton is hoping to deepen some key Harvard STS insights with long-term empirical work. Currently, he is interning at Senegal’s national Center for Ecological Study, and ENDA Third World, a multinational NGO that works with rural communities in Africa on education, renewable energy, and sustainable agriculture.