

WELCOME FROM THE DIRECTOR

Dear Friends of STS,

I write with pleasure to update you on another year of developments in the Program on Science, Technology and Society at Harvard. We made new efforts to build the Program's connections across the University, including the Law School, the Graduate School of Design, and the School of Engineering and Applied Sciences (SEAS). We hired our most recent joint STS-SEAS postdoctoral fellow, Joakim Juhl, and we continued to host the STS Circle at SEAS in a venue that is more accessible to faculty and students in science and engineering, as well as to FAS more broadly.

The year also included a prominent focus on the life sciences, already an important research area for the Program. The 2012 Science and Democracy lectures were offered by two Nobel Laureates in the life sciences, Phillip A. Sharp, who heads the Koch Institute for Integrative Cancer Research at MIT, and Paul Nurse, President of Britain's Royal Society. New research funding from the Faraday Institute in Cambridge enabled us to continue the Program's work on bioconstitucionalism previously supported by the National Science Foundation.

In an exciting new venture, STS is working with the Institute for Global Law and Policy (IGLP) at Harvard Law School to develop new research and teaching opportunities at the intersection of law, science, and technology. Co-sponsored events included a workshop, "Facts and Futures: Expertise between Science and Law," and a seminar with political theorist Timothy Mitchell. This spring we will jointly host a lecture by Kenneth Feinberg, the renowned expert on compensation for mass torts and disasters.

In other news, the thirteenth meeting of the Science and Democracy Network will be hosted by the University of Vienna's Science and Technology Studies Department in 2014. This will help cement the new pattern of alternating SDN annual meetings between the United States and Europe which began with the 2010 meeting in London and the 2012 meeting in Paris.

Most importantly, our research and training endeavors continue to flourish, with increasing student participation and interest in the Graduate Secondary Field in STS. In addition, I am delighted to report progress on new research grants, new publications, and exciting new career milestones for former STS Fellows. I invite you to read more about all of these developments below.

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

Mula

UPCOMING EVENTS AND DEADLINES

January 31, 2014

Deadline for non-stipendiary
fellowship applications

April 1, 2014

Lecture by
Kenneth R. Feinberg
Attorney, *Feinberg Rosen*
LLP, 4-6PM

5-7PM April 15, 2014

Science & Democracy Lecture
Craig Calhoun
Director, *London School of*
Economics

June 30-July 2, 2014

13th Annual Science and
Democracy Network Meeting
University of Vienna, Science
and Technology Studies
Department
Vienna, Austria

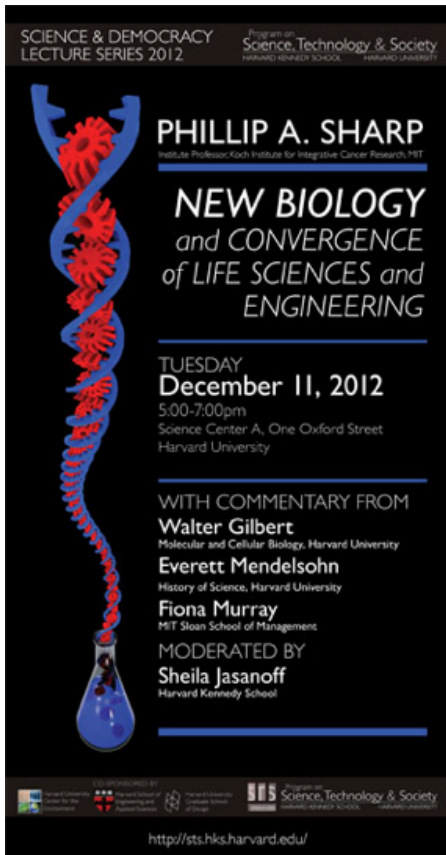
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<http://twitter.com/HarvardSTS>
<http://www.facebook.com/HarvardSTS>



Science and Democracy Lectures

PHILLIP A. SHARP December 11, 2012



SCIENCE & DEMOCRACY
LECTURE SERIES 2012

Program on
Science, Technology & Society
HARVARD KENNEDY SCHOOL HARVARD UNIVERSITY

PHILLIP A. SHARP
Institute Professor/Koch Institute for Integrative Cancer Research, MIT

NEW BIOLOGY
and CONVERGENCE
of LIFE SCIENCES and
ENGINEERING

TUESDAY
December 11, 2012
5:00-7:00pm
Science Center A, One Oxford Street
Harvard University

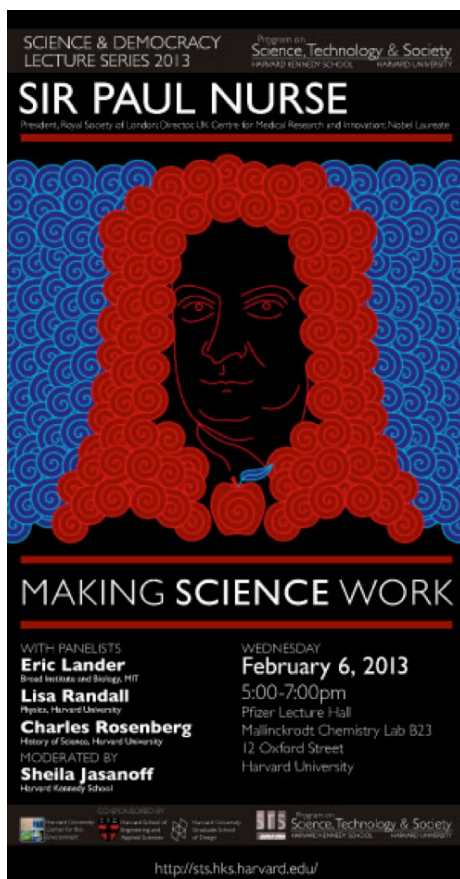
WITH COMMENTARY FROM
Walter Gilbert
Molecular and Cellular Biology, Harvard University
Everett Mendelsohn
History of Science, Harvard University
Fiona Murray
MIT Sloan School of Management

MODERATED BY
Sheila Jasanoff
Harvard Kennedy School

<http://sts.hks.harvard.edu/>

Phillip Sharp, our distinguished colleague from MIT, laid out his vision of a third revolution in the biological sciences in his Fall 2012 Science and Democracy Lecture on "New Biology and Convergence of Life Sciences and Engineering." He argued that the next phase of advancement in the life sciences will involve an integration with the computational sciences, including mathematics, engineering, and physics. Sharp addressed some of the broad social problems, such as the production of sufficient food for a growing population, that could potentially be solved through the application of this "New Biology." Panelists Walter Gilbert (Molecular and Cellular Biology, Harvard), Everett Mendelsohn (History of Science, Harvard), and Fiona Murray (Sloan School of Management, MIT) offered spirited rejoinders, proposing alternative visions of how to link fundamental research to entrepreneurship and solving society's problems.

SIR PAUL NURSE February 6, 2013



SCIENCE & DEMOCRACY
LECTURE SERIES 2013

Program on
Science, Technology & Society
HARVARD KENNEDY SCHOOL HARVARD UNIVERSITY

SIR PAUL NURSE
President, Royal Society of London/Dirctor UK Centre for Medical Research and Innovation/Nobel Laureate

MAKING SCIENCE WORK

WITH PANELISTS
Eric Lander
Broad Institute and Biology, MIT
Lisa Randall
Physics, Harvard University
Charles Rosenberg
History of Science, Harvard University

MODERATED BY
Sheila Jasanoff
Harvard Kennedy School

WEDNESDAY
February 6, 2013
5:00-7:00pm
Pfizer Lecture Hall
Mallinckrodt Chemistry Lab B23
12 Oxford Street
Harvard University

<http://sts.hks.harvard.edu/>

Sir Paul Nurse, President of the Royal Society, focused on the roles and responsibilities of science in society in his Spring 2013 Science and Democracy Lecture, "Making Science Work." Held in the Mallinckrodt Chemistry Lab, this event attracted an overflow audience of scientists and STS friends from all over the University. Nurse discussed the complex interplay of working scientists' research interests and the needs of the greater society in which scientific inquiry is embedded, arguing that the value of science should not be judged solely by utilitarian standards. Panelists, Eric Lander (Broad Institute and Biology, MIT), Charles Rosenberg (History of Science, Harvard), and Lisa Randall (Physics, Harvard), engaged with Nurse on how the demands on research scientists could be made to align better with the goals of doing great science rather than satisfying bureaucratic demands.

Workshops and Initiatives

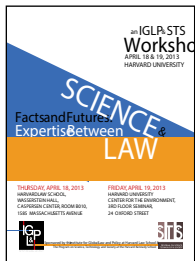
Navigating a Multispecies World: A Graduate Student Conference on the Species Turn



Co-organized by STS Fellow **Mads Dahl Gjefsen** and Harvard graduate students, Neal Akatsuka and Caroline DeVane, "Navigating a Multispecies World" addressed the intellectual turn to, and reflection upon, life beyond the human species in the arts, humanities, and social sciences. The day-and-a-half conference included four panels of paper presenters, organized around themes such as "Territorializing Animal-Human Relations" and "Re-theorizing Human Subjectivity." The conference also featured keynote talks by **Noam Chomsky** and **Stefan Helmreich**, both of MIT, and a viewing of the film *Project Nim*. Videos of the conference keynotes are available on the STS Program website.

Facts and Futures: Expertise between Science and Law

The Institute for Global Law and Policy at Harvard Law School and the Harvard STS Program co-hosted "Facts and Futures: Expertise between Science and Law," April 18-19, 2013. The workshop featured papers by Andrew Lang (LSE), Aziza Ahmed (Northeastern University School of Law), Andrew Mathews (UC Santa Cruz), and Ahmed Raghav (Harvard Divinity School). Each paper was followed by commentary from one of the designated discussants: David Winickoff (UC Berkeley), Steven Epstein (Northwestern University), Rebecca Bratspies (CUNY School of Law), and Amr Shalakany (American University in Cairo). Unfortunately, the second day was abruptly canceled by the lockdown following the Boston Marathon bombings, but paper presenters had great success with the feedback they gathered at the event. Ahmed's paper, published in the *Columbia Journal of Gender and Law*, was selected as a winner in the American Association of Law Schools competition for New Voices in Gender Studies. The paper is available at sts.hks.harvard.edu. Her recognition signals the potential for fruitful cross-fertilization between law and STS.



Energy Politics: After Carbon

On March 5, 2013, **Timothy Mitchell**, Professor and Chair of the Department of Middle Eastern, South Asian, and African Studies at Columbia University, led a discussion of his latest book, *Carbon Democracy*. He shared his thoughts since the book was completed and reflected on the forms of politics that may arise in tandem with future energy transitions. Professor Mitchell's seminar was co-sponsored by the Harvard STS Program and the Institute for Global Law and Policy at Harvard Law School.

STS Next 20

With welcome editorial and technical leadership by **Margo Boenig-Liptsin**, we greatly expanded the **Vignettes** section of the STS Next 20 site. Contributions by last year's Fellows are available at the site and this year's Fellows are beginning to add their thoughts and reflections. This is shaping up to be an extraordinary collection of pieces showing "STS in action." Please browse, engage, and send us your own contributions if you feel inspired. Read more at <http://stsnext20.org/vignettes/>.

Science, Democracy, and the American University: From the Civil War to the Cold War

In collaboration with the Charles Warren Center for Studies in American History, the STS Program hosted a celebration of Associate Professor of History and Social Studies and Harvard STS Faculty Affiliate Andrew Jewett's book, *Science, Democracy, and the American University: From the Civil War to the Cold War*. For more information on the book, visit Cambridge University Press at <http://www.cambridge.org/>.

Workshops and Events

Science and Democracy Network



The Twelfth Annual Meeting of the Science and Democracy Network was held in Cambridge, MA, June 30- July 2, 2013. Presenters spoke on such varied topics as foodborne disease outbreak detection, the cultural politics of waste water recycling, and computer literacy as a prerequisite for citizenship in the 21st century. Four plenary sessions addressed Reflections on Science and Democracy, Science, Democracy and the STS Handbook, SDN in a Digital Age, and STS in/and the Policy World.

Third Annual STS Undergraduate Essay Contest

This year's STS undergraduate essay contest attracted nearly thirty submissions from Harvard College juniors and seniors. The winners, chosen by the STS Fellows, represent the diversity and strength of this year's entries. **Gili Vidan ('13)** received first prize for her thesis chapter, "From Products to Services, From Providers to Sovereigns: The Formation of the Data-Subject and Emergence of Corporate Rulers in Cyberspace." Gili, whose thesis also won a Hoopes prize, is spending the 2013-14 academic year at the Oxford Internet Institute before returning to Harvard to pursue her Ph.D. in History of Science. **Sandra Korn ('14)** won second place for her essay, "Truth about human nature?: An analysis of STS perspectives on sociobiology and evolutionary psychology." Third place was awarded to **Emily Howell ('13)** for her piece, "Nondivisible Loads: *Missoula County v. MDT* and the debate over value, objectivity, and the role of the public in the assessment of the Kearsarge Module Transport Project."

Science and Public Reason

Sheila Jasanoff's essay collection, *Science and Public Reason*, is now available in paperback from Routledge at <http://www.routledge.com/books/details/9780415624688/>.

Training and Curricular Activities

STS Circle

The STS Circle, now in its eighth year, showcased a wide range of research engaging with Science and Technology Studies in Cambridge and beyond. In fall 2012, the Circle moved to the School of Engineering and Applied Sciences for its weekly colloquia. With increased proximity to many Harvard laboratories, the STS Circle now attracts markedly greater attendance from faculty and students in the sciences who can step away from the lab to hear lunchtime presentations on a variety of intriguing topics. The complete STS Circle program is available at http://sts.hks.harvard.edu/events/sts_circle/.

Secondary Field

The Secondary Field in Science, Technology and Society attracts students from varied backgrounds, including anthropology, law, design, chemistry, and engineering and applied sciences among others. This year, STS/SEAS Postdoctoral Fellow Joakim Juhl and Director Sheila Jasanoff were invited to hold an information session on the secondary field for the Harvard Graduate School of Arts and Sciences' Science Policy Group. Secondary field students and alumni continue to thrive. Their latest accomplishments are highlighted below:

Joe Vitti (Organismic and Evolutionary Biology) recently published a review paper in the Annual Review of Genetics. That paper is available at: <http://stsprogram.org/admin/files/AnnRevGen-Vitti-et-al.pdf>.

Margo Boenig-Liptsin (History of Science) is collaborating with **Ben Hurlbut** (STS Fellow, 2009-2010) to investigate the sociotechnical imaginaries and visions of governance and social change at Singularity University as part of a larger Templeton Foundation funded project on "Transhumanist Imagination: Innovation, Secularization, and Eschatology."

Victor Seow (History and East Asian Languages) is completing his dissertation on the history of coal mining and the fossil fuel industry in Northeast China in the first half of the twentieth century, and will be joining Cornell University as Assistant Professor of Modern Chinese History in Fall 2014.

Shi-Lin Loh (East Asian Languages and Civilizations) is spending the year in Tokyo where she is conducting archival research for a dissertation chapter on X-rays at the Tokyo University medical library and the National Diet Library. In Japan, she has enjoyed meeting STS researchers from throughout East Asia. She recently translated an article on the reconstruction process in Fukushima, "Nobody Dies in a Ghost Town: Path Dependence in Japan's 3.11 Disaster and Reconstruction," written by prominent Japanese public intellectual and historical sociologist Oguma Eiji. The article is available at <http://www.japanfocus.org/-Oguma-Eiji/4024>.

Shun-Ling Chen (S.J.D 2013, LL.M 2005) is currently Visiting Assistant Professor at the University of Arizona James E. Rogers School of Law.

For more information on the Secondary Field, visit: <http://sts.hks.harvard.edu/field/>.

RESEARCH NEWS

"The Fukushima Disaster and the Cultural Politics of Nuclear Power in the United States and Japan"

Thanks to a grant from the National Science Foundation, the STS Program began work on a study of discourses of responsibility and blame following the Fukushima nuclear disaster. Led by Principal Investigator **Sheila Jasanoff** at Harvard and Senior Researcher **Kyoko Sato** at Stanford, this three-year project will examine how the cultural meanings of the 2011 disaster are being constructed in Japan and the United States, as well as how, through this process, nationally specific ideas that anchor nuclear policy are being refined and modified. As part of the initial data collection phase, Sato traveled to Japan in August 2013 to conduct interviews with public officials, experts, and activists, visit Fukushima, and gather materials for media analysis.

New Research on Remote Presence Technologies

STS Fellow **Zara Mirmalek** began work on an ethnographic study among communities of scientists working with remote presence technologies for environmental knowledge production. The study foregrounds themes of access, innovation, and intercultural communication around such technologies. Mirmalek's research is funded by a National Science Foundation INSPIRE grant through the Woods Hole Oceanographic Institute. In October 2013, Mirmalek conducted her initial fieldwork aboard the E/V Nautilus on its mission to uncover the impact of volcanic eruptions on the seafloor between the islands of Montserrat and Dominica. The scientists' use of remote operated vehicles to collect data was live streamed throughout the mission.

Bioconstitutionalism

In the past few years, researchers in the STS Program have sharpened their focus on areas of intersection between law and the life sciences. The "**Biology and the Law**" project, funded by the Uses and Abuses of Biology grant program at Cambridge University's **Faraday Institute for Science and Religion**, compares emerging legal principles around stem cell research and synthetic biology in Britain, Germany and the US. Co-investigators **Sheila Jasanoff** and former STS Fellow **Ben Hurlbut** presented an update on the first year of research at a meeting of principal investigators in Cambridge in September 2013. Predoctoral fellow **Daniela Schuh** is continuing project research begun by postdoctoral fellow **Ingrid Metzler** on the German case.

NEW FELLOWS

Sonja M. Amadae

Assistant Professor, Political Science, The Ohio State University

Ari Barell (Spring 2014)

Post-doctoral Fellow, Jacques Loeb Centre for the History and Philosophy of the Life Sciences, Ben-Gurion University of the Negev

Alessandro Blasimme (Spring 2014)

Lecturer, Doctoral School in "Biology, Health Care and Biotechnology," Université Paul Sabatier – Toulouse

Adam Bly

CEO, Seed Scientific

Maud Borie (Fall 2013)

Ph.D. candidate, School of Environmental Sciences, University of East Anglia

Aurelien Bouayad (Fall 2013)

Ph.D. candidate, Sciences Po Law School, Paris

Joakim Juhl

Postdoctoral Fellow, STS Program/School of Engineering and Applied Sciences, Harvard

Irem Kok

Ph.D. candidate, School of Geography and the Environment, University of Oxford

Luca Marelli

Ph.D. candidate, European School of Molecular Medicine (SEMM) and University of Milan

Ian Vincent McGonigle

Ph.D. candidate, Anthropology, University of Chicago

Georgia Miller (Spring 2014)

Ph.D. candidate, Environmental Humanities, Faculty of Arts and Social Sciences, University of New South Wales

Zara Mirmalek

Postdoctoral Fellow, National Science Foundation INSPIRE Project: "Transforming Remotely-conducted Research through Ethnography, Education and Rapidly-Evolving Technologies"

Daniela Schuh

Predoctoral Fellow, Biology and the Law, funded by the Faraday Institute for Science and Religion; Ph.D. student, University of Vienna, Department of Science and Technology Studies

Holger Strassheim (Spring 2014)

Assistant Professor, Institute of Social Sciences, Humboldt-University Berlin

Fellow Milestones

Elizabeth Barron (2011-2013) began a tenure track position at University of Wisconsin-Oshkosh with a joint appointment in Geography and Urban Planning and Environmental Studies. She has forthcoming publications in *Performing Diverse Economies* and *The Canadian Geographer*.

Laurence L. Delina (Spring 2013) presented a paper entitled "Australian energy epistemics: evolution of knowledge tensions on energy transition narratives in Australia" at the Energy Systems in Transition: Inter- and Trans-Disciplinary Contributions Conference at Karlsruhe, Germany in October 2013.

Rachel Douglas-Jones (Fall 2010) successfully defended her Ph.D. thesis at Durham University, UK, in February 2013 while working on green retrofitting for the Durham Energy Institute. She completed her three year term as co-chair of the Postgraduate Forum on Genetics and Society at the Forum's annual Colloquium, and subsequently moved to Glasgow for a research position on a project analyzing the philosophies of scientific interventions in stone decay. Since August 2013 she has held a postdoctoral position at IT University in Copenhagen, where she teaches a course on Society and Technology. She begins an Assistant Professorship at the ITU in August 2014.

Adrian Ely (2004-2005), Lecturer at Sussex University, together with colleagues David Tyfield and John Urry (Lancaster) and Frauke Urban (SOAS) have been awarded funds from the UK ESRC for a 2.5 year project on 'Low carbon innovation in China: Prospects, Politics and Practice.

Sam Weiss Evans (2009-2011) recently received several grants to study security concerns in synthetic biology, including funding from the British ESRC/AHRC/DSTL Science and Security Programme, the Wellcome Trust, and the National Science Foundation's Synthetic Biology Engineering Research Center (Synberc).

Pru Hobson-West (Fall 2006) completed her Wellcome Trust Fellowship in ethics and society in 2009. She was then appointed as a Lecturer in welfare, ethics and society at the University of Nottingham, UK. She is based in the Centre of Applied Bioethics and the School of Veterinary Medicine and Science, where she applies insights from STS and medical sociology to the emerging field of animals and society. Her current projects include Wellcome Trust funded research into veterinary ethics and Leverhulme Trust funded work on laboratory animal research and public participation.

Dustin Holloway (2011-2012) is Program Manager for the Harvard Program in Therapeutics Science and also a Research Associate in the Dept. of Systems Biology at Harvard Medical School. He recently published a short book on career changes into patent law and an article in *The Scientist*.

Connie Johnston (2012-2013) completed her dissertation, *The Social, Spatial, and Scientific Aspects of Farm Animal Welfare in the US and European Union*, and earned her Ph.D. from the Clark University Graduate School of Geography. She is a visiting instructor at the University of Oregon for the 2013-2014 academic year. Connie recently published two articles in *Geography Compass* and in *Carnets de géographes*, a book chapter in *Humanities in the Twenty-First Century*, and a review in the *Journal of Historical Geography*.

Christopher Jones (2009-2011) has accepted a position at Arizona State University as Assistant Professor of History in the School of Historical, Philosophical, and Religious Studies. Along with **Clark Miller** (1995-1999) and **Alastair Iles** (1997-2000), he co-edited a

special issue of *Science as Culture* on the social dimensions of energy transitions, featuring contributions from former STS Fellows and Science and Democracy Network members including **Sheila Jasanoff**, **Sang-Hyun Kim**, **Les Levidow**, **Roopali Phadke**, and **Sujatha Raman**.

Martin Mahony (Fall 2012) completed his Ph.D. thesis at the University of East Anglia in September 2013 and will have his viva in December 2013. He has accepted a post in the Department of Geography at King's College London, where he will develop new projects with Professor Mike Hulme on the geographies of climate change knowledges. His latest publication is "The predictive state: science, territory and the future of the Indian climate," in *Social Studies of Science*, largely written during his stay with the STS Program.

Cormac O'Raifeartaigh (2010-2011) was elected a Fellow of the Royal Astronomical Society this semester. He has been invited to present a synopsis of his recent paper "Einstein's forgotten model of the universe" at the American Astronomical Society meeting (History of Astronomy Division) in Washington, D.C. in January 2014.

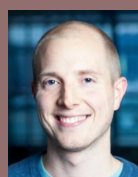
Roopali Phadke (2003-2005) received a grant from the Great Lakes Integrated Sciences Assessment for a new project entitled "Making it Personal: Deliberating Climate Change Adaptation." In partnership with the Science Museum of Minnesota and the Saint Paul Mayor's Office, this project will develop new deliberative techniques for engaging underrepresented publics in considering how public funds should be invested in adaptation planning. The project will work closely with well-established immigrant communities from Asia and east Africa.

Kaushik Sunder Rajan (2002-2003) co-edited a dossier on "Translational Research in the Life Sciences" with Sabina Leonelli (University of Exeter) in the Fall 2013 issue of *Public Culture*. The dossier contains essays by Hans-Jörg Rheinberger, Hannah Landecker and Jennifer Karlin, and an Introduction by the co-editors.

Tolu Odumosu (2009-2013) was recently appointed as an Assistant Professor of Engineering and Society at the University of Virginia.

Lee Vinsel (2011-2012) is an Assistant Professor of Science and Technology Studies at the Stevens Institute of Technology, where he is helping to build the young STS program. This summer he was a fellow at the Lemelson Center at the National Museum of American History. He and his Stevens colleague, Andrew Russell, received a grant from the National Institute of Standards and Technology to develop STS curricula about standards and standardization.

New Harvard STS-SEAS Postdoctoral Fellow



The Harvard STS Program and the School of Engineering and Applied Sciences (SEAS) welcomed Joakim Juhl as this year's joint STS-SEAS postdoctoral fellow. An acoustic engineer, an avid sailor, and a military officer, Joakim received his Ph.D. in STS from the Technical University of

Denmark with a dissertation on the application of mathematical models in industrial product development. Under the direction of Professors Sheila Jasanoff and Venkatesh Narayanamurti, Joakim will continue to strengthen connections between the STS Program and SEAS, organize and facilitate the weekly STS Fellows meetings, and support Professor Narayanamurti's undergraduate course, Introduction to Technology and Society.