

Program in Science, Technology, and Society

All agree that science and technology in the 21st century have deep connections to the social, cultural, and political worlds. As President Susan Hockfield recently told the assembled freshman class, “MIT is where science and society meet.” It is at our institute that the intellectual products of the laboratory, the prototype, and research study begin to have an impact on the world, and it is at our institute where the world’s problems are translated into terms approachable with the mind and hand. From energy to health care, social networks to changing climates, MIT’s contributions inevitably intertwine the technical and the social. MIT students care more than ever about the consequences of their work, whether environmental, economic, cultural, or otherwise. To attract and train the leaders of this century, the Program in Science, Technology, and Society (STS) helps MIT offer an education that teaches scientists and engineers to engage these consequences at the highest level. This type of education will set MIT apart from the numerous global engineering schools turning out technical specialists.

A major thrust of departmental activity in 2007–2008 was the search for a new faculty member in the history of science to fill a niche left empty by the departure of several faculty within the past five years. After an extensive search and interview process, and with much help from the dean’s and provost’s offices, STS hired two new faculty members. Dr. Clapperton Mavhunga is just finishing a PhD in the history of technology at the University of Michigan and is an historian of technology in Africa. His dissertation looks at the users of two technologies, firearms and pest control, over the last hundred or so years and how each helped define their social and political contexts—from colonial hunters using rifles to hunt big game to 20th-century rebels using the AK-47 in political struggles. His work rethinks the entire idea of “technology” in Africa (previously considered by scholars to be a place without indigenous science and technology) with major ramifications for our understanding of the continent’s evolution and the role of current technologies in Africa’s future. He also has a project with the Earthwatch Institute to build local science and technology museums in southern African villages to showcase indigenous innovations as a means of providing attractions for development. Mavhunga, an energetic scholar and intellect, was attracted to MIT over several competing offers because of the opportunity to collaborate with other globally oriented projects (e.g. MIT senior lecturer Amy Smith’s D-Lab) and because of the spirit of innovation and collegiality between STS and the rest of the campus.

Our other hire is Dr. Hanna Shell, a 2007 graduate of Harvard’s History of Science PhD program. Dr. Shell is completing a book on the history of camouflage in the late 19th and early 20th centuries. During this period, naturalists studied the markings on animals with a variety of new tools, including photography, and focused on the role of appearances and behavior in an organism’s relationship to its environment. During World War I, these ideas were taken up by armies, which consulted with these scientists on the best way for humans to dress and behave to blend with their surroundings. Shell’s work not only links natural history with the military, but also is an extended meditation on the relationship of a subject to its environment. She is a filmmaker as well and has made films about topics as diverse as the undersea photography of Jules Marey and the global used clothing market. Shell’s work strengthens a cluster of scholarship

in STS on “subject and environment,” currently pursued by professors Sherry Turkle, Natasha Schüll, and David Mindell, and we expect to grow this cluster into an attractive nexus for students and research. Dr. Shell is completing a junior fellowship at Harvard, so she will be on leave during academic year 2008–2009.

With the completion of our faculty roster in 2008, the department will turn its attention to the longer term vision and planning. As did all departments in the School of Humanities, Arts, and Social Sciences (SHASS), STS submitted a strategic plan to Dean Deborah Fitzgerald on July 1, 2008, and will begin implementing that plan in the coming year.

Educational Activities

STS offered 25 undergraduate subjects and 26 graduate subjects in AY2007–2008. Five of these were new subjects, four of which were created by assistant professors Vincent Lépinay and Natasha Schüll. Undergraduate enrollment totaled 372, and graduate enrollment totaled 118.

In our teaching program, we continue to emphasize collaborations with other parts of MIT. We offered 20 subjects jointly with other departments (Anthropology, Electrical Engineering and Computer Science, Engineering Systems Division [ESD], Health Sciences and Technology, History, Linguistics and Philosophy, Media Arts and Sciences [MAS], Political Science, and Women’s and Gender Studies).

This year, STS had four undergraduate minors and 83 concentrators (39 of whom graduated in June 2008). We offered six undergraduate HASS Distribution (HASS-D) subjects and seven Communication Intensive (CI-H) subjects. In its third year, STS.006J Bioethics (a HASS-D, CI-H class) drew the largest total enrollment among STS subjects, with 119 students in spring 2008. STS.005 Disease and Society in America (also a HASS-D, CI-H class in its third year) came in a close second with an enrollment of 103 in fall 2007.

STS offered four Undergraduate Research Opportunity Program (UROP) projects this year. Two students worked on the Vehicle Design Summit and were supervised by Professor Rosalind Williams. One project focused on the early history of MIT from 1848–1870 and was supervised by Merritt Roe Smith, Leverett Howell and William King Cutten professor of the history of technology. The fourth project involved research around mapping controversies and was supervised by Professor Lépinay.

In the spring of 2008, the STS director convened a faculty committee to examine the department’s undergraduate offerings and rethink them from the ground up. This initiative responds to several exciting changes: (1) a host of new faculty and course offerings, (2) the new double major proposed by the task force and recently approved by the faculty, and (3) forthcoming proposals for new General Institute Requirements (GIRs) in SHASS and in design. The committee will report to the director at the close of 2008 with a series of recommendations.

Doctoral Program

The doctoral program in History, Anthropology, and Science, Technology, and Society (HASTS) is run by STS with collaboration from the History faculty and the Anthropology Program. The program is administered by STS, which awards the degrees. Associate professor Stefan Helmreich (Anthropology) served as director of graduate studies in 2007–2008. This year the director of graduate studies and the HASTS Steering Committee refined and clarified the student handbook, led the development of a common reading list for one portion of the HASTS general examinations, and worked closely with students to encourage them to meet program milestones in a timely manner. The 2008 admissions cycle included 105 applicants, the largest pool in the history of the program. HASTS will enroll five new students in the fall (one minority student, one international student, and three women). Admissions yields were lower than normal, as several students accepted into the program accepted offers from Yale, Princeton, and Harvard instead.

In 2007–2008, there were 30 students in the program, and three HASTS students received their doctoral degrees during this period: Étienne Benson, Natasha Myers, and Esra Ozkan. One of these graduates secured a faculty position (at York University) and the other two secured postdoctoral fellowships (at Harvard’s Center for the Environment and École Normale Supérieure’s Centre Maurice Halbwachs). Our students continue to be successful at winning competitive fellowships to support their graduate studies.

Projects, Grants, and Initiatives

David Jones, Leo Marx career development associate professor of the history and culture of science and technology, was awarded a two-year grant from the Robert Wood Johnson Foundation to explore the history of cardiac revascularization techniques and to uncover the range of factors that influence therapeutic practice and change in American medicine and their immediate relevance to health policy. Professor Jones’ grant from the Foundation for Informed Medical Decision Making to produce a comprehensive study of decision making for cardiac revascularization concluded in May 2008. The goal of the study was to develop a decision-making aid targeted toward both patients and clinicians that would allow them to integrate all relevant clinical information and make the best decision about cardiac interventions for each individual patient.

The two-year grant from the MIT-Portugal Program to develop an STS and social science research methods course for students of engineering systems ended successfully in summer of 2008. The course taught engineering students in Portugal, and will continue to be the basis in future years for a joint course between ESD and STS. It was led by David Mindell, Frances and David Dibner professor of the history of engineering and manufacturing, professor of engineering systems, and director of STS.

Professor Mindell has been leading a “Space, Policy, and Society” group that consists of seven faculty and associated students from STS, the Department of Aeronautics and Astronautics (Aero/Astro), and ESD. With the help of postdoctoral associate Dr. Scott Uebelhart, the group led a weekly seminar series all year on current issues in space policy, and is currently working up a white paper on policy issues in the future of

human spaceflight to be published in early 2009 and aimed at coming decisions for the new administration.

Associate professor of the history of science David Kaiser received a grant for the spring 2008 semester from Wellesley College to conduct research on his project titled American Physics and the Cold War Bubble.

Preserving and Enhancing Technical Security in Research and Education, a research project involving Theodore Postol, professor of science, technology, and international security, and the Science, Technology, and Global Security Working Group, enters its final year with support from the John D. and Catherine T. MacArthur Foundation.

Ongoing Program Activities

Ongoing STS activities bring a wide variety of distinguished scholars to the MIT campus on a regular basis. The longest running of these activities is the STS Colloquium Series. We started the fall series by hosting (with MIT's Space Policy and Society Research Group and Aero/Astro) a very special event for the entire MIT community—a free sneak preview of Ron Howard's film *In the Shadow of the Moon*. Following the film screening, director David Sington and coproducer Christopher Riley answered questions along with former astronaut and current MIT professor Jeffrey Hoffman; MIT professor Robert Seamans, who served as NASA Deputy Administrator from 1960–1968; and Apollo historian Professor Mindell. (Given Dr. Seamans' passing in July 2008, this was one of his last public appearances.)

Following the kick-off event, the series continued with 10 speakers participating this year. Topics included "Collecting the Twentieth Century"; "Governing Green Laboratories: Trust and Surveillance in the Culture of Science"; "Evidence, Evaluation, and the Fight Against Poverty"; "The Urban Space Station"; and "The Creation Controversy in Contemporary America: A Field Study of the Creation Museum, Petersburg, Kentucky." One of our colloquium speakers, Professor Alberto Cambrosio of McGill University, a leading scholar in medical anthropology and the history of medicine, offered a midday workshop for HASTS faculty and graduate students on new quantitative methods to help sort through the growing body of data now available to social scientists. This workshop offered a rare occasion for our faculty and students to learn these new techniques and assess their potential.

The program hosted five informal brown bag lunch talks offered by invited speakers on a wide range of topics including "Archives and Interviews: Reflections on Two Decades of Research," "Reforms in Russian Science and Higher Education," "Understanding Successful Proliferators: How the Most Undeveloped Nations Get the World's Most Dangerous Weapons," and "Promoting Nuclear Stability in South Asia."

Every year STS also sponsors the Arthur Miller Lecture on Science and Ethics, which is promoted to the larger MIT and Boston-area communities. This past fall, Charles Perrow, research scholar and emeritus professor of sociology at Yale University and author of *Normal Accidents*, delivered the Miller lecture on the topic "The Next Catastrophe." Perrow argued that organizations such as the Department of Homeland Security are not

up to facing the mounting threats of natural, industrial, and terrorist disasters and never will be, and he demonstrated why we should deconcentrate populations in highly risky areas, deconcentrate the hazardous materials in our populated areas, and deconcentrate the powerful corporations that sit astride our critical infrastructure.

The program was also fortunate this year to have secured sufficient funds to sponsor the Morison Lecture and Prize in Science, Technology, and Society. The Morison Lecture and Prize was established by the Morison family and the Hitchiner Manufacturing Company to recognize the technical and societal accomplishments of several generations of Morison family members and of the engineers of the Hitchiner Company, as well as the contributions of MIT faculty members and graduates to the growth and success of that company. The Morison Lecture and Prize is intended to honor individuals, selected internationally, who have demonstrated commitment to and effectiveness in carrying out the ideals of the Morison family. The Morison Prize recognizes the accomplishments of an individual who has made major contributions at the interface between science and technology on the one hand and matters of societal concern on the other.

David P. Billington, Gordon Y.S. Wu professor of engineering, professor of civil and environmental engineering, and director of the Program in Architecture and Engineering at Princeton University, was selected as the recipient of the 2008 Morison Lecture and Prize in Science, Technology, and Society. Professor Billington spent two days on campus. In addition to his Morison Prize lecture, “‘The New Epoch’ and the 21st Century Imperative for Engineering History,” he gave an informal talk based on *Engineering in the Modern World*, a course he teaches at Princeton, and also met with members of the Morison family. Billington specializes in structural analysis and design with an emphasis on concrete structures, bridge design, thin shell concrete structures, and the history and aesthetics of structures as an art form. His recent publications include *Power, Speed and Form—Engineers and the Making of the Twentieth Century* (with David P. Billington Jr.) (Princeton University Press, 2006). His visit and lecture provided much food for thought for future subjects at MIT oriented toward the new “design” GIR.

MIT’s Space Policy and Society Research Group launched a new seminar series this academic year cosponsored by STS. The series, organized by Professor Mindell and coordinated by Dr. Uebelhart, had a very successful inaugural year with 13 seminars on topics ranging from “Reflections on the Past Half-Century in Space” to “The Vision for Space Exploration—Current Status and Future Outlook.” Speakers included Dr. John Logsdon, director of the Space Policy Institute, Elliott School of International Affairs, George Washington University; Dr. Robie I. Samanta Roy, assistant director for space and aeronautics, Office of Science and Technology Policy; and Roger D. Launius, PhD, Division of Space History, National Air and Space Museum, Smithsonian Institution.

Eminent sociologist Manuel Castells, the Marvin C. (1951) and Joanne Grossman distinguished visiting professor of technology and society at MIT, was brought to the Institute for two weeks in March by STS, MAS, and the Department of Urban Studies and Planning (DUSP); STS serves as his academic home. Under this five-year arrangement, which will continue through spring 2009, Professor Castells has returned annually to MIT for two-week visits to teach a graduate seminar and develop

research projects. The topic of this year's seminar was "Space of Flows, Space of Places: Technology, Globalization and Urbanization." Professor Castells also gave an informal lecture on his current research to faculty and graduate students in STS, DUSP, and MAS; a reception followed his talk.

MIT's History faculty and STS continue to cosponsor the MIT Seminar on Environmental and Agricultural History (formerly called the Modern Times, Rural Places Seminar Series), which brought five speakers to campus to give talks on environmental and agricultural history.

The Benjamin Siegel Prize of \$2,500 is awarded to the MIT student submitting the best written work on issues in science, technology, and society. The prize is open to undergraduate and graduate students from any school or department of the Institute. This year's prize committee (professors Michael Fischer, Vincent Lépinay, and Theodore Postol) awarded the 2007–2008 Benjamin Siegel Prize to HASTS graduate student Sara Wylie for her paper "Mimetic Designs, Desires, and Disorders: Juvenile." The committee also awarded an honorable mention to HASTS graduate student Chihyung Jeon for his paper "Bringing the Atmosphere Back in the 1920s/1930s."

HASTS graduate student Xaq Frohlich was this year's recipient of the Siegel Teaching Prize, which was established to recognize outstanding teaching on the part of a graduate student serving as a teaching assistant in STS. Frohlich served as a teaching assistant for STS.005 Disease and Society in America in the fall term and for STS.006 Bioethics in the spring term. Instructors for both subjects praised Frohlich's combination of enthusiasm and professionalism in his work with these classes.

STS also cosponsored two conferences this year. A two-day conference conceived primarily by HASTS graduate students and faculty under the direction of associate professor of anthropology Christine Walley was held at the MIT Museum April 10–11, 2008. The "Disruptive Environments: Academics, Activists, and Journalists in Conversation" conference brought together journalists, activists, and scholars from the sciences, humanities, and social sciences on interrelated environmental themes with the goals of creating new avenues of interaction, developing better tools to conceptualize environmental questions, and inspiring novel forms of action.

A conference exploring whether race and ethnicity can be used as analytic categories in law, medicine, and government without calcifying the very divisions that research in these fields is supposed to erase was held April 25–26 at the MIT Faculty Club. Professor Jones, director of MIT's Center for the Study of Diversity in Science, Technology, and Medicine (CSD), organized this event with assistance from his postdoctoral associate Dr. Ian Whitmarsh. Researchers and journal editors in medicine, science, law, and social science explored competing interests in and perspectives on the use of race in seven sessions during the two-day conference. This was the third conference sponsored by CSD and organized by Dr. Jones. Previous conferences focused on race and pharmaceuticals and the commercialization of race.

Knights Science Journalism Fellowship Program

This past year was the 25th year of the Knight Science Journalism Fellowships Program at MIT. The program continues to attract science journalists from around the world seeking to learn more about the science and technology they cover.

The program's director, Boyce Rensberger, retired on June 30, 2008. Dean Fitzgerald led a search committee for a new director, on which STS director Mindell served. The group reviewed many applications and interviewed several candidates before it recommended extending an offer to Philip J. Hilts, an accomplished science journalist who formerly worked at the *New York Times* and has published several well-received books. Hilts accepted the offer and begins as director July 1, 2008.

The 25th class of fellows included Pam Belluck, New England bureau chief for the *New York Times*; Catherine Clabby, science reporter for the *News & Observer* of Raleigh, NC; Pere Estupinya, a science journalist from Spain; Jonathan Fahey, an associate editor at *Forbes* magazine; Zarina Khan, who covers science, medicine, and the environment at *Emirates Today* in Dubai; John Mangels, a newspaper reporter at the *Cleveland Plain Dealer*; Esther Nakkazi, who covers medical and science issues for *The East African*; Julie Robotham, a medical editor from *The Sydney Morning Herald*; Keith Seinfeld, a reporter covering science and the environment at public radio station KPLU in Seattle; and Ivan Semeniuk, US bureau chief for *New Scientist*.

Fellows spent most of their time attending classes at MIT and Harvard, but also attended more than 60 seminars with faculty that were specially organized for them, as well as other seminars and workshops devoted to science and technology and their wider impacts. A new addition was incorporated into the program this year—each fellow was allowed to take a research trip of his or her choosing. Jon Fahey, John Mangels, and Ivan Semeniuk spent a week in Switzerland and France visiting the European Organization for Nuclear Research (CERN) and International Tokamak Experimental Reactor (ITER) labs, and Zarina Khan spent time learning about desalination techniques in Florida.

During his 10th and final year as director of the program, Boyce Rensberger organized two weeklong intensive seminars, referred to as boot camps or workshops, for current Knight fellows and other science journalists. The topics this past year were medical evidence and neuroscience. The medical evidence boot camp is in its sixth year, and still as popular as ever. The neuroscience workshop was a new addition to the Knight program, after a generous grant from the Kavli Foundation and Fred Kavli established an endowment fund to cover expenses for an annual weeklong workshop. The subjects of each workshop will rotate among the universe, neuroscience, and nanotechnology.

For the Knight program's 25th-year celebration, Rensberger conceived and organized a three-day symposium, "The Future of Science Journalism." More than 200 journalists, many former Knight fellows, attended the symposium. Speakers included Alfred Hermida, Tom Rosenstiel, and Henry Jenkins. Hermida is a founding member and technology editor of BBCNews.com and a professor at the University of British Columbia's journalism school. His research examines multiplatform journalism, blogging, podcasting, and user-generated content. Rosenstiel is the director of the Project for

Excellence in Journalism and vice chairman of the Committee of Concerned Journalists. A journalist for some 20 years, he now writes frequently on maintaining high journalistic standards in an era of change. Jenkins, director of MIT's Comparative Media Studies program, lectures widely about media consumption and media convergence. He sees lessons for journalists in popular media such as television, movies, and electronic games.

A gala dinner was held in between the symposium days, with guest speaker Julia Sweeney, best known from *Saturday Night Live*. At the dinner she spoke about her poignant personal journey from religious devotion to an embrace of science.

In January the Knight fellows traveled to Costa Rica to meet with scientists and journalists. The group spent several days at La Selva Biological Station interacting with scientists and researchers, hiked around the Arenal Volcano with Costa Rica's leading vulcanologist, and met with Dr. Eduardo Doryan Garrón, executive president of the Costa Rican national health care system. In addition, the fellows visited health clinics and hospitals in San José and met with reporters and the editor of the country's largest newspaper, *La Nación*.

The fellowships are supported by an endowment from the John S. and James L. Knight Foundation of Miami, by MIT, and by alumni and foundation gifts. More information about the Knight Science Journalism Fellowship Program can be found at <http://web.mit.edu/knight-science/>.

Faculty Activities

Professor John Durant continued his work as STS adjunct professor and director of the MIT Museum. In addition to overseeing the work of the museum (the highlight of which was the opening of the new Mark Epstein Innovation Gallery in September 2007) and acting as executive director of the 2008 Cambridge Science Festival (which attracted an audience of 28,000 people to 230 events over nine days), he taught two linked courses in the STS program: an Independent Activities Period (IAP) course, STS.095 The Creation Controversy in Contemporary America, and a follow-up nine-credit course in the second semester with the same title (STS.096). The IAP course was organized around a four-day field excursion to the newly opened Creation Museum in Petersburg, KY, and the follow-up course offered students who had taken the IAP course the opportunity to continue analyzing their findings with a view to coauthoring a research article for submission to a peer-reviewed journal. The STS.096 students copresented a colloquium on their work in the STS Program Colloquium series in April 2008. Professor Durant also published two short articles during the year: an account of the MIT Museum expansion in *Nature* and a transatlantic perspective on public engagement with science in *Science and Public Affairs*.

Professor Fischer completed a book, *Anthropological Futures*, and started a book series, *Experimental Futures*, both at Duke (with a first book already out, former advisee and HASTS alumnus Dr. Christopher Kelty's *Two Bits*). In addition to publishing five articles, he has submitted three book chapters and one journal article. He was a featured speaker at the Stony Brook University Humanities Center's 20th-Anniversary Conference, participated in three national conferences, served on two journal editorial boards, reviewed manuscripts for several presses and journals, chaired dissertation committees

of two graduate students, was on the committee of three more, and supervised two predissertation students. He taught four classes and two weekly reading courses. He was an active participant in the hiring of new faculty and in reading folders of graduate student applicants.

Professor Jones continued his work as the Leo Marx career development associate professor of the history and culture of science and technology and as director of CSD, funded by the Andrew W. Mellon Foundation. His research explores the history of cardiology and cardiac surgery in an effort to understand decision making about cardiac revascularization, especially bypass surgery and angioplasty. In December 2007, he won a prestigious Investigator Award in Health Policy Research from the Robert Wood Johnson Foundation to continue work on this project. He gave lectures about current and past research at Brown University, the Maimonides Medical Center, the Foundation for Informed Medical Decision Making, and the annual meeting of the Society for Social Studies of Science. In the fall he taught two undergraduate subjects, a HASS-D/CI course on the history of disease and medicine (STS.005) and a research seminar for minors in STS (STS.091). In the spring he was awarded an Old Dominion Fellowship from SHASS to focus on his research. At the Center for the Study of Diversity he organized an April 2008 conference — “What’s the Use of Race?” — that attracted a range of scholars from law, history, epidemiology, medicine, sociology, and anthropology. In addition to his work at MIT, he is a lecturer in the Department of Social Medicine at Harvard Medical School, where he codirects two courses on social medicine and global health required for all first-year medical students, one for students in the New Integrated Curriculum (SM.750) and one for students in Health Sciences and Technology (HST.930/STS.449).

Professor Kaiser spent his sabbatical during the 2007–2008 academic year working on three related projects. He continued to make progress on his book, *American Physics and the Cold War Bubble* (to be published by the University of Chicago Press). That book has now spawned two additional book projects. The first, provisionally titled “How the Hippies Saved Physics,” traces some of the intellectual adjustments made by American physicists in the 1970s in the face of massive disruptions in funding and enrollments. Half of that book is now written, and materials are in hand for the remainder. He has also made progress on a separate book about a highly publicized fraud case in recent nuclear physics and the search for the “island of stability,” on which he has been busy collecting materials, interviewing participants, and delivering invited lectures. Essays by Kaiser appeared in *American Scientist*, *Centaurus*, *Scientometrics*, the new *Dictionary of Scientific Biography*, and the updated *Handbook of Science and Technology Studies*, and an encyclopedia article is in press in the *Compendium of Quantum Physics*. He delivered seven invited colloquia, including the plenary talk at a Harvard Humanities Center conference, and has continued his service on the History of Science Society Council and the editorial advisory boards of *Isis*, *Historical Studies in the Natural Sciences*, and the forthcoming WGBH/NOVA documentary *Fabric of the Cosmos*. He has also continued his consulting service for the US Department of Energy’s Office for Scientific and Technical Information. His book, *Drawing Theories Apart* (2005), was honored with the 2007 Pfizer Award from the History of Science Society for the best book in the field.

During academic year 2007–2008, Professor Lépinay worked on new courses and on two books. In the fall term, he taught for the first time the new STS.051 Introduction to Social Studies of Finance to undergraduate students. In the spring, he taught STS.015 Mapping Controversies in collaboration with colleagues in France. The Class of 1960 Fund awarded him a grant to develop this course. He was also awarded a grant by the MIT-France Program to further the collaboration with Sciences-Po and École des Mines de Paris. In preparation for a two-day conference that will take place at MIT in early February 2009, he organized a preliminary meeting with scholars from the School of Engineering and from MIT Libraries to brainstorm on ways to launch a larger digital humanities initiative with European partners. In parallel, he finished a book with colleague Bruno Latour (published simultaneously in French by Editions La Decouverte and in English by the University of Chicago Press) and will be submitting his own dissertation manuscript (to Harvard University Press) in mid-July 2008. He published several articles during this academic year in *Economy and Society* and *The Sociological Review*.

Professor Mindell's book *Digital Apollo: Human and Machine in Spaceflight* was published by MIT Press in May 2008. The book is already into its third printing and has been featured on NPR (*Talk of the Nation*), in *Technology Review* (September 2008), and on a variety of space-related websites and podcasts. An hour-long documentary based on the book appeared in *Moon Machines*, the Discovery Science Channel series about Apollo engineering. The book has been well received by NASA engineering groups working on the next lunar landing, and has been read by the NASA administrator. Mindell is a collaborator on a grant from the National Space Biomedical Research Institute (Professor Larry Young and Charles Oman, co-principal investigators) for "Lunar Landing and Spatial Disorientation," which examines human factors in future lunar landing scenarios and appropriate technologies for control and interface. Mindell's Space Policy and Society Research Group met many times over the year with invited speakers on current issues in space policy. Mindell cotaught STS.260 Introduction to STS (with Professor Lépinay), the main graduate introductory subject in the department, and cotaught a graduate seminar on space policy. He continued his collaboration with the Woods Hole Oceanographic Institution (WHOI) on exploring Greek waters for ancient shipwrecks, and consulted with the new director of WHOI on technology strategies for deep ocean exploration. Mindell serves on the ESD council and is collaborating with ESD on the development of Social Science Research Methods for Engineering Systems, a new course required for ESD PhD students that will begin being offered in the spring of 2009. He served on the MIT Nominations Committee, the Campus Energy Task Force, and a variety of other subcommittees relating to the new GIR proposals. He and his wife began this year as housemasters in MIT's Edgerton House.

Professor Postol continues his work on policy issues connected with missile defense systems in collaboration with the Science, Technology and Global Security Working Group, supported by the MacArthur Foundation.

During her first year at MIT, Professor Natasha Schüll completed *Machine Zone: Technology and Compulsion in Las Vegas*, a book on gambling addiction and slot machine design to be published by Princeton University Press in 2009. A chapter based on the book will appear in the forthcoming *The Inner History of Devices: Technology and Self*,

edited by Sherry Turkle, the Abby Rockefeller Mauzé professor of the social studies of science and technology. Over the past year, Schüll's work has received attention in the national press, including *Salon*, the *Boston Globe*, and the *Washington Post*. Schüll was an invited speaker at a National Press Club event on the expansion of gambling, and gave expert testimony twice at the Massachusetts State House on the governor's bill for casino gambling. She spoke on the subject at MIT's Technology & Culture Forum, the American Anthropological Association annual meetings, and the Gaming Research Institute in Canada. Schüll was invited to present her new research on neuroeconomics (supported by a grant from the National Science Foundation) at the workshop *Our Brains, Our Selves*, organized by Anne Harrington at Harvard and Nikolas Rose at the London School of Economics. The journal *Economy and Society* accepted Schüll's special issue proposal (with Dr. Kelty), "Parsing Calculation: Human and Non-Human Case Studies," in which an article on her current research will appear. Schüll's documentary film, *BUFFET: All You Can Eat Las Vegas*, screened multiple times on PBS and appeared in numerous film festivals. Her teaching at MIT included a new undergraduate course, STS.045 Technology and Experience; the HASS-D/CI course STS.006J Bioethics (cotaught with Professor Caspar Hare of the Department of Linguistics and Philosophy); and a new graduate seminar, STS.468 Social Studies of Neuroscience. She designed a new HASS-D/CI undergraduate course, STS.010 Neuroscience and Society, which she will teach in fall 2008, and for which she was awarded funding from the SHASS dean's Course Development Initiative. Schüll has been named the Leo Marx career development assistant professor of the history and culture of science and technology.

Professor Smith continues his appointments as distinguished lecturer for the Organization of American Historians (by presidential appointment for the period 2007–2010); honorary guest professor at the Kanazawa Institute of Technology (Japan), a position he has held since 2004; co-principal investigator for the MIT Program on Emerging Technologies (PoET), which was awarded a five-year grant in 2004 by the National Science Foundation's Integrative Graduate Education and Research Traineeship Program. In addition to serving on several committees at MIT (chair, Housemaster Search Committee, Next House, 2008; member, STS Search Committee for the History of Science, 2007–2008; member, HASTS Admissions Committee, 2008), Smith has been housemaster of MIT's Burton-Conner undergraduate residence since 2004. He also continues to edit the Johns Hopkins Studies in the History of Technology series at Johns Hopkins University Press as well as to serve on several outside advisory boards and committees for the American Precision Museum, the American Museum of Textile History, WGBH's *American Experience*, the Society for the History of Technology (SHOT), and Gettysburg College. In addition to delivering keynote lectures at two National Endowment for the Humanities Landmarks of American History Teacher Workshops at the Tsongas Industrial History Center/Lowell National Park (summer 2007), he was a program chair ("Technological Enthusiasm and the User: Aesthetics, Passion and Innovation") at the SHOT annual meeting in Washington, DC (October 2007). He also gave several public lectures, including three this spring: "Lincoln and the Tools of War," "Harpers Ferry and Its Historical Significance," and "Why the South Lost the Civil War." Smith has several articles and essays in progress.

Professor Turkle continues her work as the director of the MIT Initiative on Technology and Self. The initiative's publishing program has been her priority over the past year, during which she was on sabbatical. The second volume of her three edited collections on things and thinking, *Falling for Science: Objects in Mind*, was published by MIT Press in June 2008. It joins the first volume, *Evocative Objects: Things We Think With* (published in June 2007). Her presentations in 2007–2008 included keynotes at the Harvard University Center for the Humanities (a seminar on science and the humanities), the Oxford University Internet Institute, the University of Oregon, the MIT Museum, and the Nieman Conference on Narrative Journalism. In addition to other media coverage, Turkle was the subject of a *New York Times* profile in October 2007; in May 2008, her work on teens and connectivity technology was featured on the *NBC Nightly News*. Professor Turkle is engaged in active study of robots, digital pets, and simulated creatures, particularly those designed for children and the elderly, as well as in a study, funded by the Intel Corporation, of mobile cellular technologies. She is currently working on a book on the sensibilities associated with contemporary digital culture.

This year has been a return to the underworld for Professor Williams, metaphorically speaking. In the fall (while on leave) she led a Smith College seminar on "Underworlds/Undergrounds"; in March 2008 a new edition of her book *Notes on the Underground* was published by MIT Press. Revisiting this earlier work proved helpful as she continued researching and writing her next book, which extends the environmental themes of *Notes*. Professor Williams continued to participate in a series of seminars on literature and technology organized by a group of HASTS and Harvard graduate students. She also made several trips to the Netherlands and Belgium to serve on panels reviewing science, technology, and society research and education in Europe.

David A. Mindell

Director

**Frances and David Dibner Professor of the History of Engineering and Manufacturing
Professor of Engineering Systems**

More information about the Program in Science, Technology, and Society can be found at <http://web.mit.edu/sts/>.